

# VOYAGER

## Space Flight Operations Schedule (SFOS)

Issue Date: November 1, 2017

For the Period: 11/2/17 to 11/20/17 (17/306 – 17/324)

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)

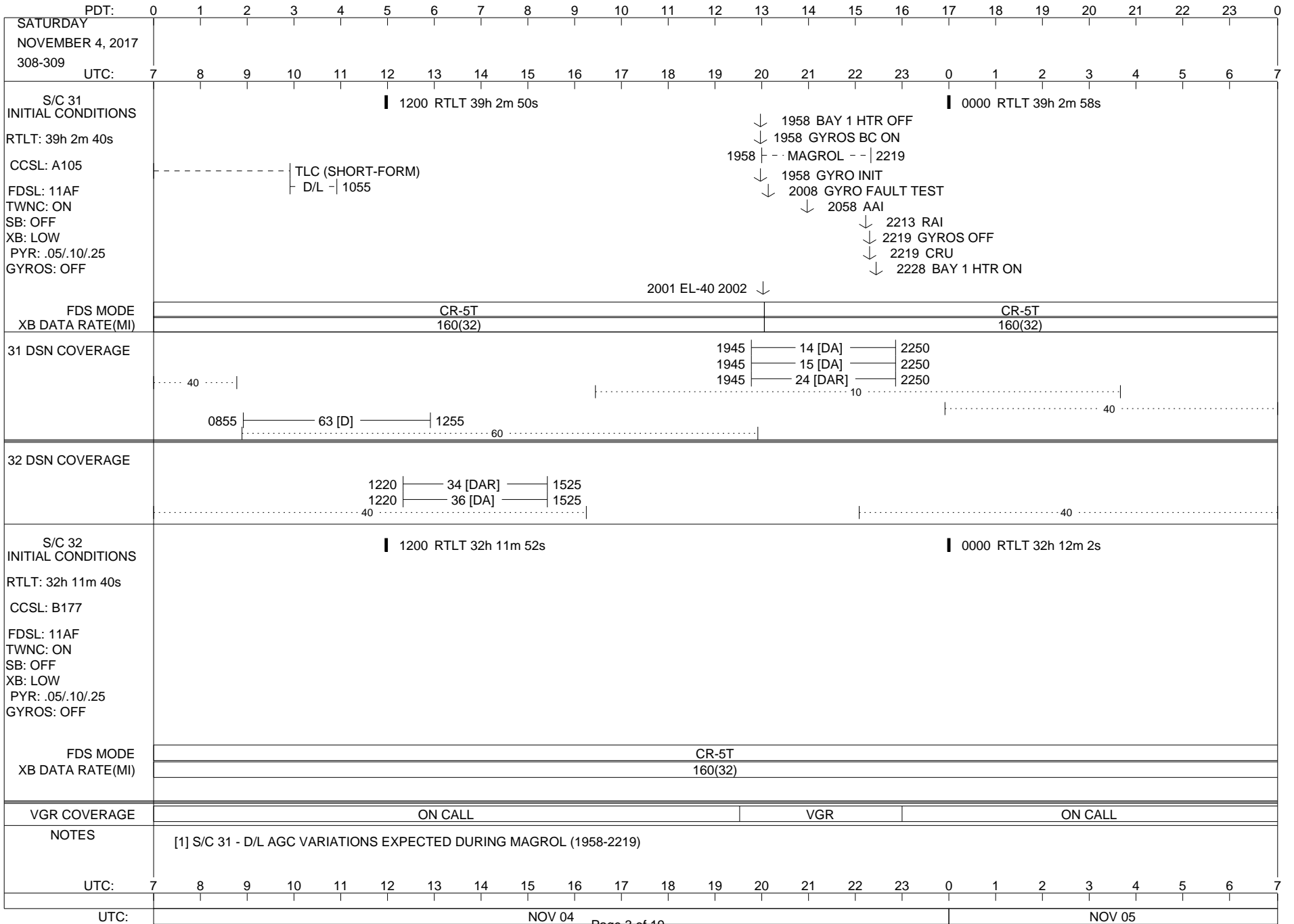
02/27/17

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 NOVEMBER 2, 2017 306-307	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: 39h 2m 6s CCSL: A105 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 39h 2m 14s												0000 RTLT 39h 2m 24s												
FDS MODE XB DATA RATE(MI)	CR-5T 160(32)																								
31 DSN COVERAGE	40												0025   14 [D]   0345 10												
	1605   63 [T]   2020 60												40												
32 DSN COVERAGE	0950   34 [DA]   1355 0950   36 [DAR]   1535 1335   35 [DA]   1535 40												40												
S/C 32 INITIAL CONDITIONS RTLTL: 32h 10m 58s CCSL: B177 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 32h 11m 8s												0000 RTLT 32h 11m 18s												
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:	NOV 02												NOV 03												

ISSUE DATE: 11/09/17 06:20

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 NOVEMBER 3, 2017 307-308																												
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	1200 RTLT 39h 2m 32s												0000 RTLT 39h 2m 40s															
RTLT: 39h 2m 24s																												
CCSL: A105	----- TLC (SHORT-FORM) -----																											
FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	0700 TAPPOS 0827   0827 PWS/RH 0838   TAPPOS   0959  ↓ 0827 GS-4B 0827																											
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 style="width: 45%;"> <p>.....40..... </p> <p>.....60..... </p> <p>1510  ----- 63 [D] -----  2015</p> </div> <div style="width: 10%; text-align: center;">10</div> <div style="width: 45%;"> <p>0030  ----- 14 [D] -----  0350</p> <p>.....40..... </p> </div> </div>																											
32 DSN COVERAGE	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>1020  ----- 35 [DA] -----  1530</p> <p>1020  ----- 34 [DAR] -----  1530</p> <p>.....40..... </p> </div> <div style="width: 10%; text-align: center;">40</div> <div style="width: 45%;"> <p>0125  ----- 34 [oA] -----  0530</p> <p>0125  ----- 35 [DAR] -----  0530</p> <p>.....40..... </p> </div> </div>																											
S/C 32 INITIAL CONDITIONS	1200 RTLT 32h 11m 30s												0000 RTLT 32h 11m 40s															
RTLT: 32h 11m 18s																												
CCSL: B177																												
FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF																												
FDS MODE													CR-5T															
XB DATA RATE(MI)													160(32)															
VGR COVERAGE	ON CALL																											
NOTES	[1] S/C 31=GS-4B @ 0827 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:	NOV 03														NOV 04													

ISSUE DATE: 11/09/17 06:20



ISSUE DATE: 11/09/17 06:20

PDT:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
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
SUNDAY NOVEMBER 5, 2017 309-310																								
S/C 31 INITIAL CONDITIONS RTLT: 39h 2m 58s CCSL: A105 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 39h 3m 6s												0000 RTLT 39h 3m 16s											
	0824   TAPPOS   0946 1126    1128 PWS/RH 1138   - - - -   1246 TAPPOS ↓ 1126 GS-4B 1128																							
FDS MODE	CR-5T												CR-5T											
XB DATA RATE(MI)	160(32)												160(32)											
31 DSN COVERAGE																								
32 DSN COVERAGE																								
S/C 32 INITIAL CONDITIONS RTLT: 32h 12m 2s CCSL: B177 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 32h 12m 12s												0000 RTLT 32h 12m 24s											
FDS MODE	CR-5T																							
XB DATA RATE(MI)	160(32)																							
VGR COVERAGE	ON CALL																							
NOTES	[1] S/C 31=GS-4B @ 1126 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
UTC:	NOV 05												NOV 06											

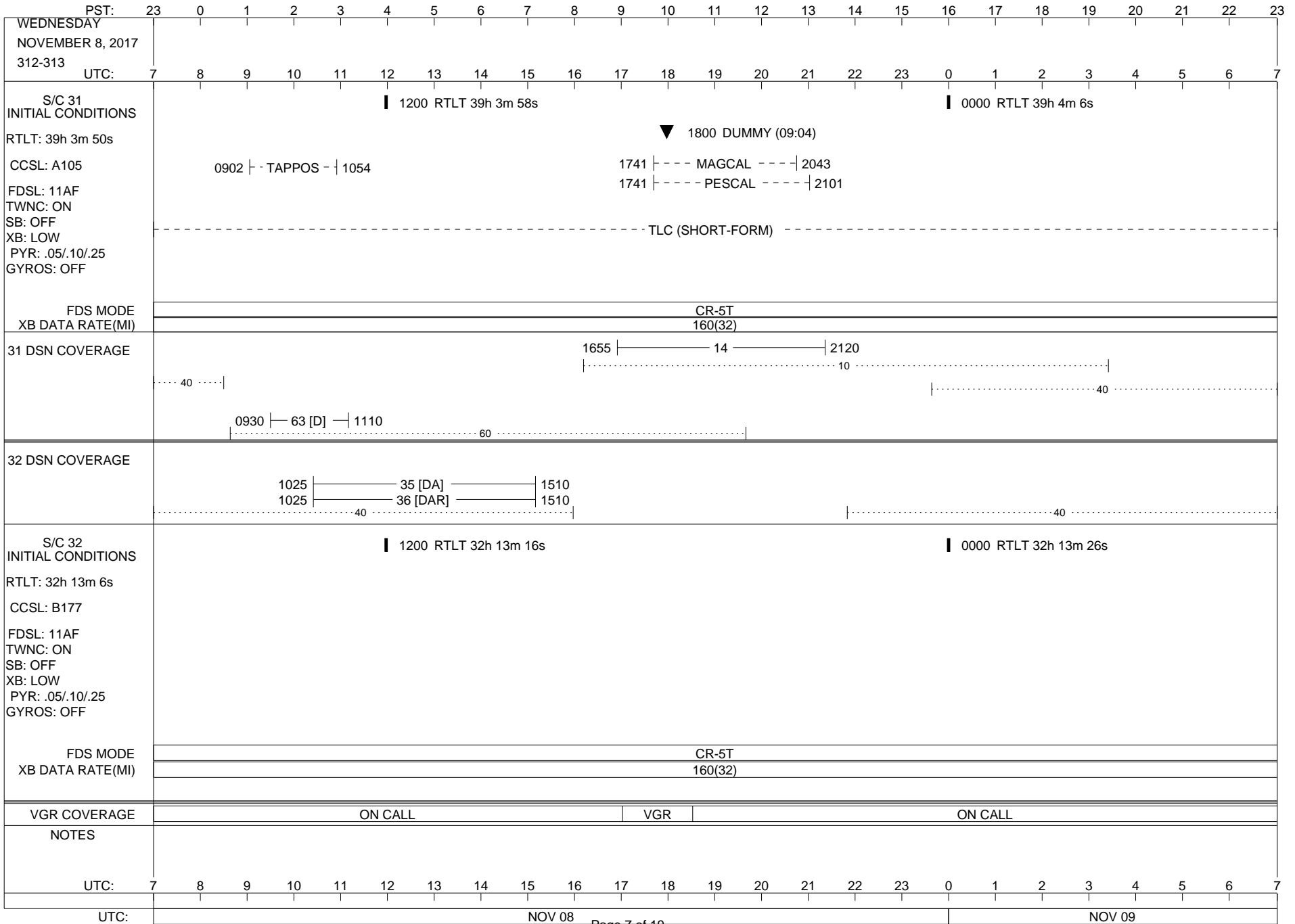
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MONDAY NOVEMBER 6, 2017 310-311																											
UTC:	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	
S/C 31 INITIAL CONDITIONS	1200 RTLT 39h 3m 24s													0000 RTLT 39h 3m 32s													
RTLT: 39h 3m 16s																											
CCSL: A105																											
FDSL: 11AF																											
TWNC: ON																											
SB: OFF																											
XB: LOW																											
PYR: .05/.10/.25																											
GYROS: OFF																											
FDS MODE														CR-5T													
XB DATA RATE(MI)														160(32)													
31 DSN COVERAGE																											
32 DSN COVERAGE																											
S/C 32 INITIAL CONDITIONS	1200 RTLT 32h 12m 34s													0000 RTLT 32h 12m 44s													
RTLT: 32h 12m 24s																											
CCSL: B177																											
FDSL: 11AF																											
TWNC: ON																											
SB: OFF																											
XB: LOW																											
PYR: .05/.10/.25																											
GYROS: OFF																											
FDS MODE														CR-5T													
XB DATA RATE(MI)														160(32)													
VGR COVERAGE	ON CALL																										
NOTES																											
UTC:	6	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:	NOV 06													NOV 07													

ISSUE DATE: 11/09/17 06:20

PST:	23	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
TUESDAY NOVEMBER 7, 2017 311-312																										
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: 39h 3m 32s CCSL: A105 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF						1200													0000							
FDS MODE	CR-5T											CR-5T														
XB DATA RATE(MI)	160(32)											160(32)														
31 DSN COVERAGE																										
32 DSN COVERAGE																										
S/C 32 INITIAL CONDITIONS RTLTL: 32h 12m 44s CCSL: B177 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF						1200													0000							
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 @ 0150 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:	NOV 07													NOV 08												

ISSUE DATE: 11/09/17 06:20

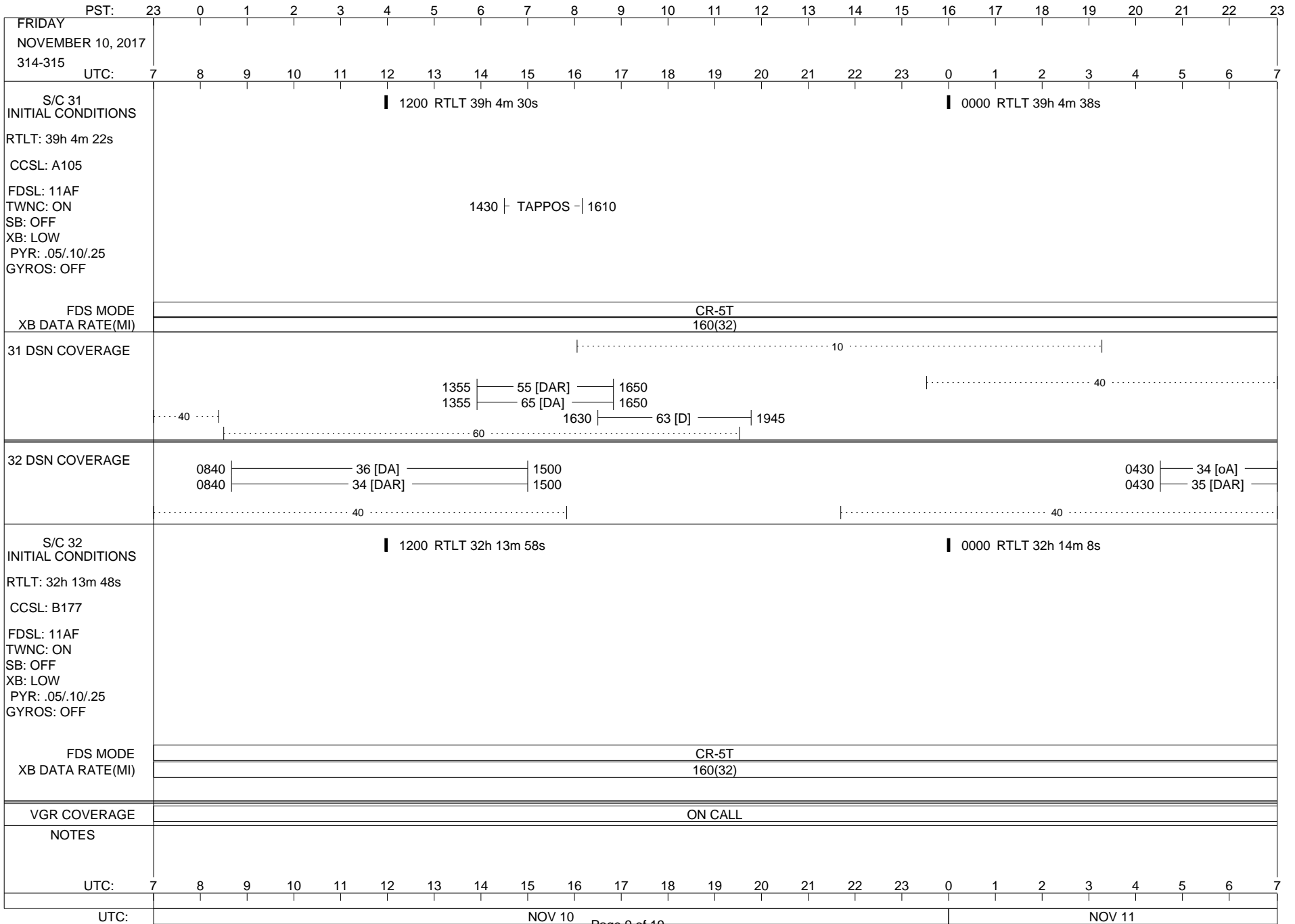




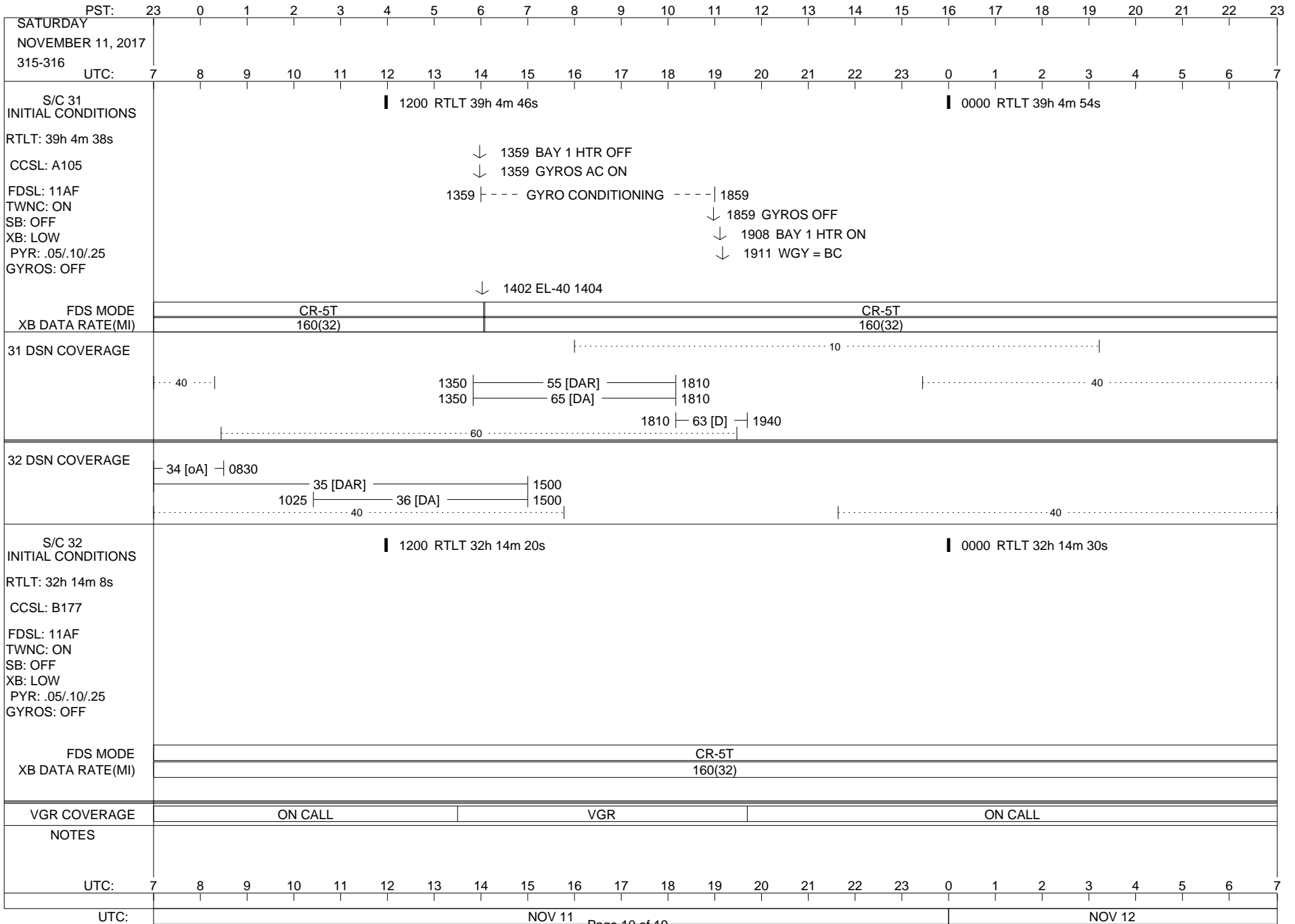
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PST:		23	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
THURSDAY																												
NOVEMBER 9, 2017																												
313-314																												
UTC:		7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7		
S/C 31 INITIAL CONDITIONS		1200 RTLT 39h 4m 14s												0000 RTLT 39h 4m 22s														
RTLTL: 39h 4m 6s														↓ 1910 BAY 1 HTR OFF ↓ 1914 X/B HI POWER ↓ 1925 YAW=.05 1935  -----PLAYBACK-----  0038														
CCSL: A105														↓ 0047 YAW=.10 ↓ 0049 X/B LOW POWER ↓ 0053 BAY 1 HTR ON														
FDSL: 11AF																												
TWNC: ON																												
SB: OFF																												
XB: LOW																												
PYR: .05/.10/.25																												
GYROS: OFF																												
FDS MODE		CR-5T									PB-14						CR-5T											
XB DATA RATE(MI)		160(32)									1.4K(39)						160(32)											
31 DSN COVERAGE		<p>1720  -----14 [DA]-----  0315</p> <p>1815  -----15 [DA]-----  0040</p> <p>1815  -----24 [DA]-----  0040</p> <p>1815  -----25 [DAR]-----  0040</p> <p>40  -----60-----  40</p>																										
32 DSN COVERAGE		<p>1035  -----34 [DA]-----  1505</p> <p>1035  -----36 [DAR]-----  1505</p> <p>40  -----40-----  40</p>																										
S/C 32 INITIAL CONDITIONS		1200 RTLT 32h 13m 38s												0000 RTLT 32h 13m 48s														
RTLTL: 32h 13m 26s																												
CCSL: B177																												
FDSL: 11AF																												
TWNC: ON																												
SB: OFF																												
XB: LOW																												
PYR: .05/.10/.25																												
GYROS: OFF																												
FDS MODE		CR-5T																										
XB DATA RATE(MI)		160(32)																										
VGR COVERAGE		ON CALL									VGR						ON CALL											
NOTES		[1] S/C 31=PB-14 @ 1935 XB=1.4K(39) [2] S/C 31=CR-5T @ 0038 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:		NOV 09															NOV 10											

ISSUE DATE: 11/09/17 06:20



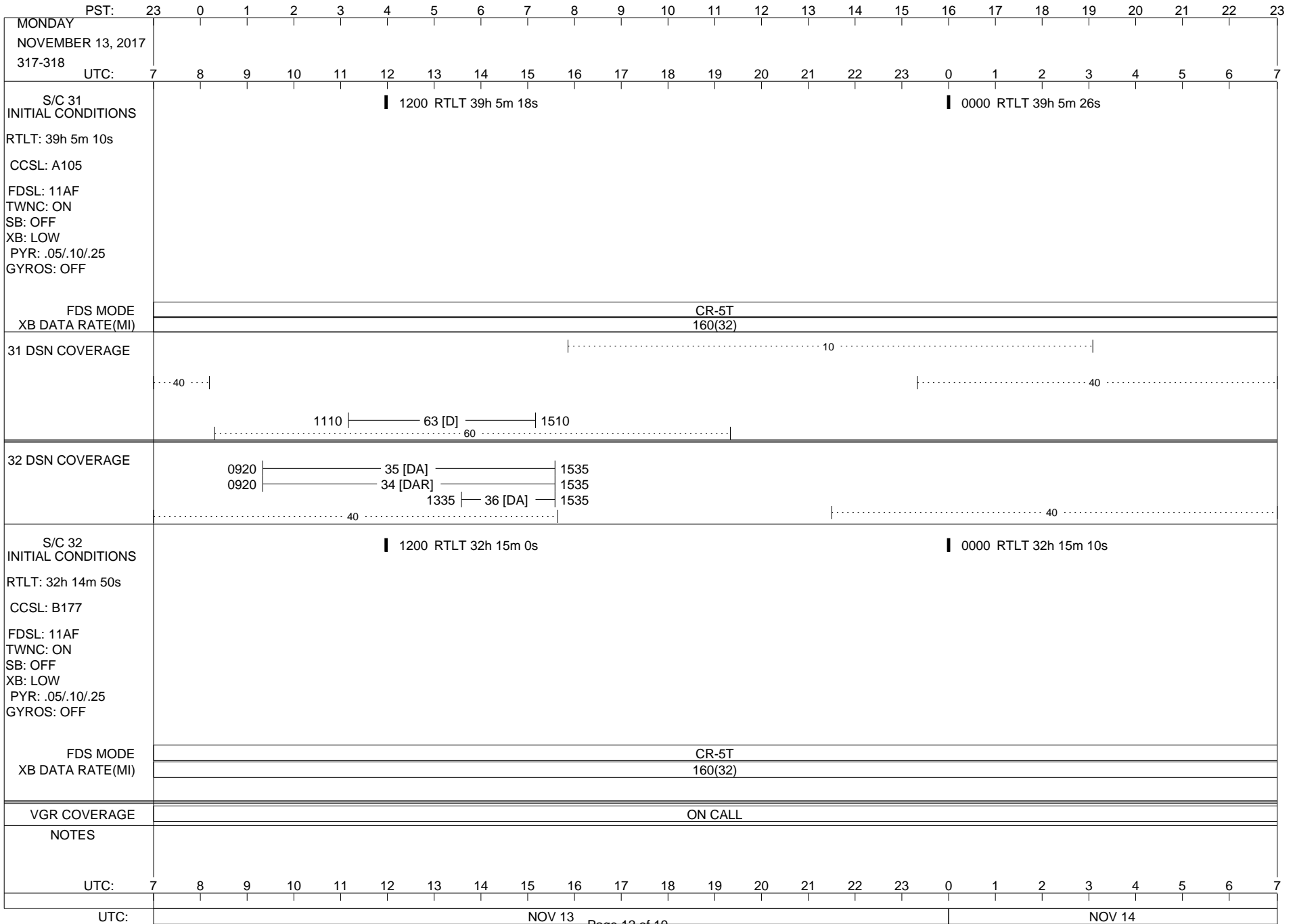
ISSUE DATE: 11/09/17 06:20



ISSUE DATE: 11/09/17 06:20

PST:	23	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
SUNDAY NOVEMBER 12, 2017 316-317	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: 39h 4m 54s CCSL: A105 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 39h 5m 2s											0000 RTLT 39h 5m 10s														
FDS MODE XB DATA RATE(MI)												CR-5T 160(32)														
31 DSN COVERAGE	1140  -----  63 [D]  -----  1605 60											0025  -----  14 [D]  -----  0305 40														
32 DSN COVERAGE	1030  -----  35 [DAR]  -----  1455 1030  -----  36 [DA]  -----  1455 40											40														
S/C 32 INITIAL CONDITIONS RTLT: 32h 14m 30s CCSL: B177 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 32h 14m 40s											0000 RTLT 32h 14m 50s														
FDS MODE XB DATA RATE(MI)												CR-5T 160(32)														
VGR COVERAGE												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:	NOV 12											NOV 13														

ISSUE DATE: 11/09/17 06:20



ISSUE DATE: 11/09/17 06:20

PST:	23	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
TUESDAY NOVEMBER 14, 2017 318-319	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: 39h 5m 26s CCSL: A105 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 39h 5m 32s											0000 RTLT 39h 5m 40s														
FDS MODE	CR-5T											CR-5T														
XB DATA RATE(MI)	160(32)											160(32)														
31 DSN COVERAGE	----- 10 -----											----- 40 -----														
	----- 40 -----											----- 40 -----														
	1120  ----- 63 [D] -----  1520											----- 60 -----														
32 DSN COVERAGE	1000  ----- 35 [DA] -----  1445											0250 - 0650  ----- 35 [DA] -----														
	1000  ----- 36 [DAR] -----  1445											0250 - 0650  ----- 36 [DAR] -----														
	----- 40 -----											----- 40 -----														
S/C 32 INITIAL CONDITIONS RTLT: 32h 15m 10s CCSL: B177 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 32h 15m 20s											0000 RTLT 32h 15m 32s														
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 @ 0127 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:	NOV 14													NOV 15												

ISSUE DATE: 11/09/17 06:20

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

WEDNESDAY  
NOVEMBER 15, 2017  
319-320 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: 39h 5m 40s  
CCSL: A105  
FDSL: 11AF  
TWNC: ON  
SB: OFF  
XB: LOW  
PYR: .05/.10/.25  
GYROS: OFF

1200 RTLT 39h 5m 48s 0000 RTLT 39h 5m 56s

▼ 1010 DUMMY (11:16)  
▼ 1021 ENA TCMTHR TEST & MRO (01:27)

U/L 1145 | - | - - - - - TLC (SHORT-FORM) - - - - -

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

31 DSN COVERAGE  
40 40  
0815 63 [T] 1215 60

32 DSN COVERAGE  
1100 35 [DAR] 1440  
1100 34 [DA] 1440  
0245 - 0700 34 [oA]  
0245 - 0700 35 [DAR]  
40 40

S/C 32  
INITIAL CONDITIONS  
RTLT: 32h 15m 32s  
CCSL: B177  
FDSL: 11AF  
TWNC: ON  
SB: OFF  
XB: LOW  
PYR: .05/.10/.25  
GYROS: OFF

1200 RTLT 32h 15m 42s 0000 RTLT 32h 15m 52s

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

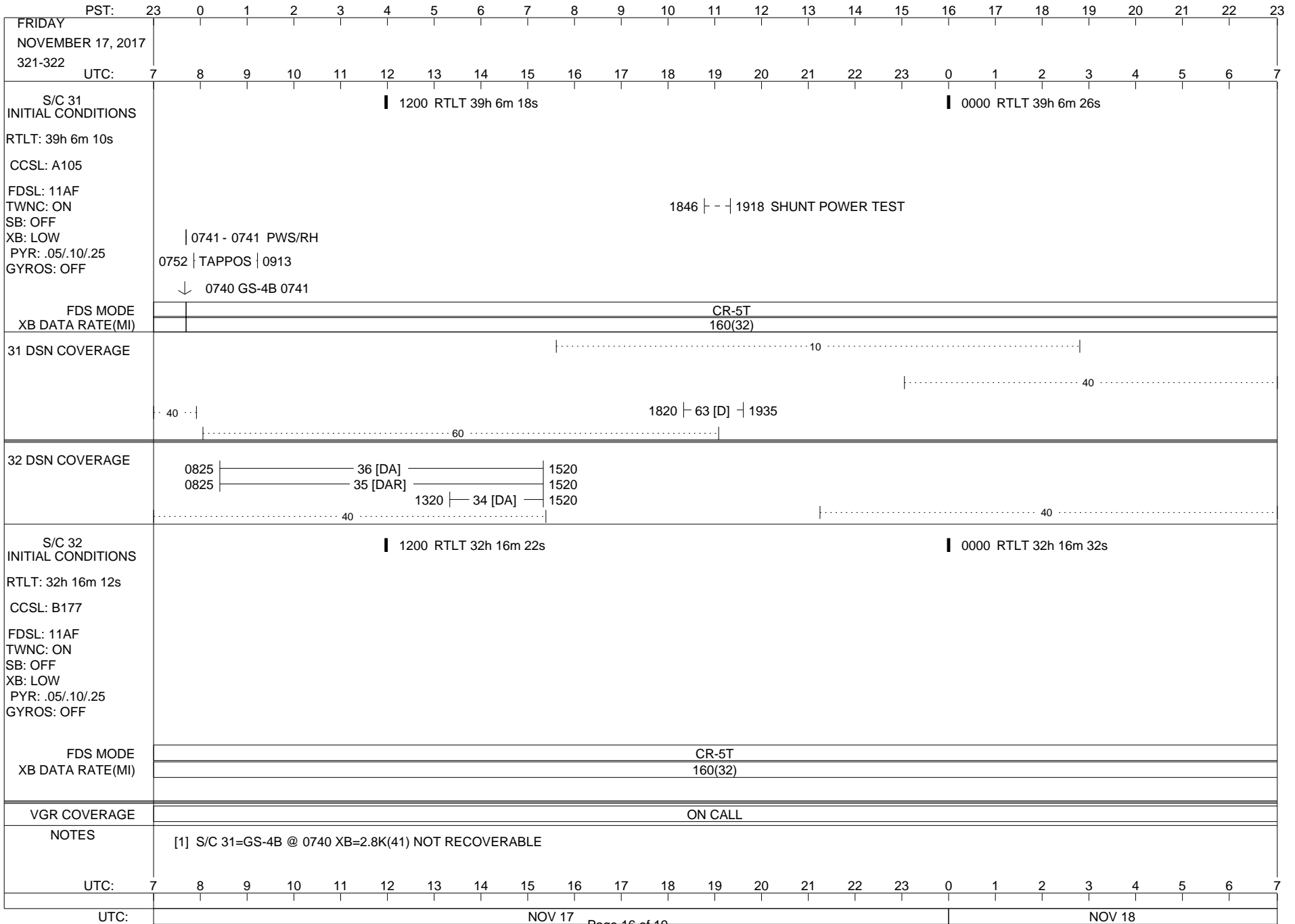
UTC: NOV 15 NOV 16

ISSUE DATE: 11/09/17 06:20

		PST:	23	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
THURSDAY NOVEMBER 16, 2017 320-321		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: 39h 5m 56s CCSL: A105 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF		1200 RTLT 39h 6m 4s											0000 RTLT 39h 6m 10s															
FDS MODE XB DATA RATE(MI)		CR-5T 160(32)																										
31 DSN COVERAGE		40											2330 14 [D] 0250 0250 34 [DAR] 0540 0250 35 [DA] 0540 40															
32 DSN COVERAGE		0700 34 [oA] 0700 35 [DAR] 40											1525 63 [D] 1925 60															
S/C 32 INITIAL CONDITIONS RTLTL: 32h 15m 52s CCSL: B177 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF		1200 RTLT 32h 16m 2s											0000 RTLT 32h 16m 12s															
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:		NOV 16											Page 15 of 19		NOV 17													



ISSUE DATE: 11/09/17 06:20



ISSUE DATE: 11/09/17 06:20

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

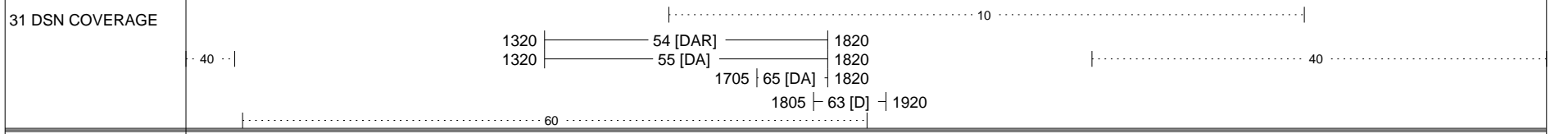
SATURDAY  
NOVEMBER 18, 2017  
322-323  
UTC: 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 0 1 2 3 4 5 6 7

S/C 31  
INITIAL CONDITIONS  
RTLT: 39h 6m 26s  
CCSL: A105  
FDSL: 11AF  
TWNC: ON  
SB: OFF  
XB: LOW  
PYR: .05/.10/.25  
GYROS: OFF

1200 RTLT 39h 6m 32s

0000 RTLT 39h 6m 40s

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



S/C 32  
INITIAL CONDITIONS  
RTLT: 32h 16m 32s  
CCSL: B177  
FDSL: 11AF  
TWNC: ON  
SB: OFF  
XB: LOW  
PYR: .05/.10/.25  
GYROS: OFF

1200 RTLT 32h 16m 42s

0000 RTLT 32h 16m 52s

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

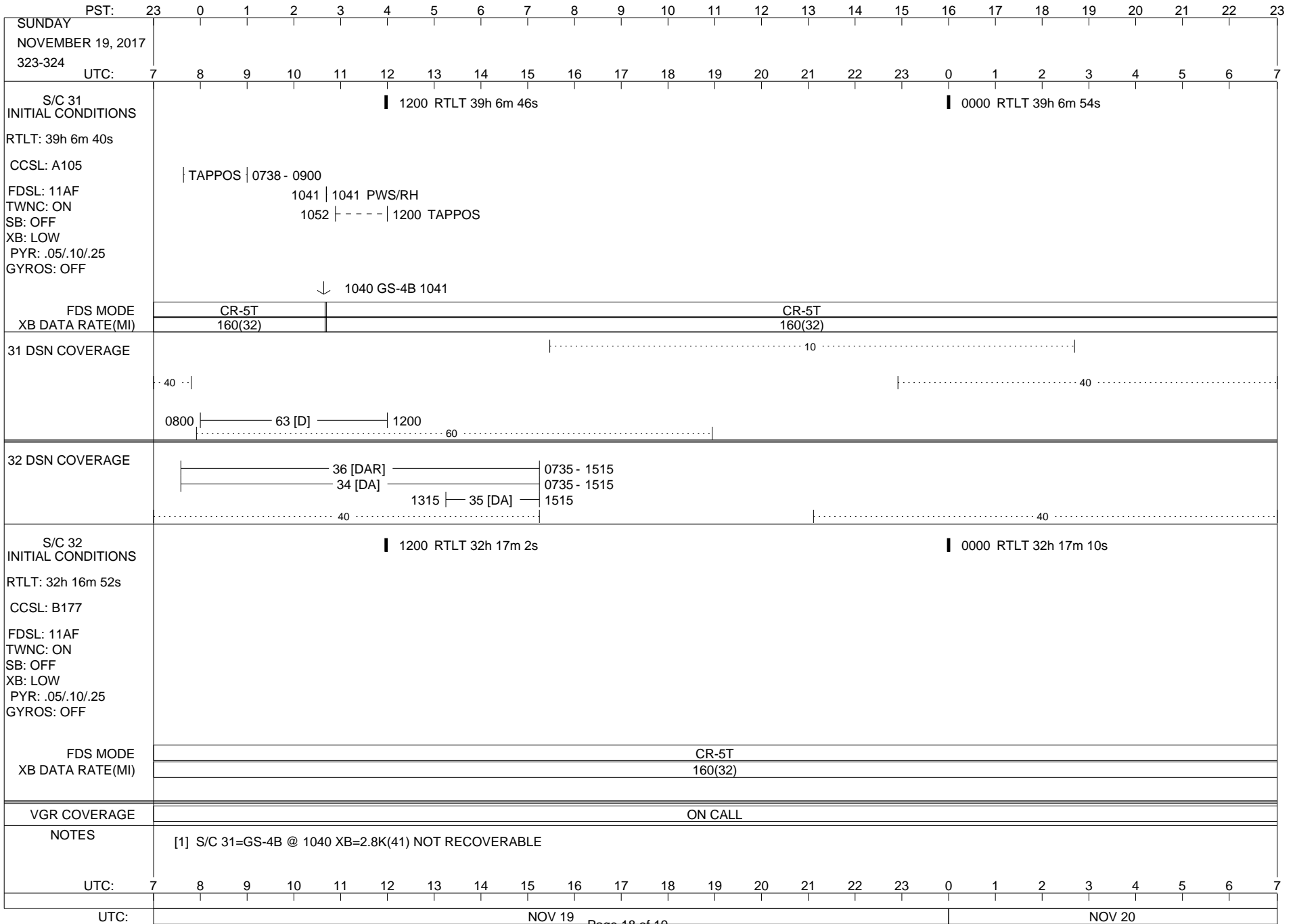
VGR COVERAGE ON CALL

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: NOV 18 Page 17 of 19 NOV 19

ISSUE DATE: 11/09/17 06:20



ISSUE DATE: 11/09/17 06:20

PST:	23	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
MONDAY NOVEMBER 20, 2017 324-325																										
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: 39h 6m 54s CCSL: A105 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	<p>1200 RTLT 39h 7m 0s</p> <p>1800 DUMMY (09:07)</p>																									
FDS MODE XB DATA RATE(MI)														CR-5T 160(32)												
31 DSN COVERAGE	<p>1525  -----  14  -----  1925</p> <p>40  -----  60  ----- </p>																									
32 DSN COVERAGE	<p>1045  -----  36 [DAR]  -----  1510</p> <p>1045  -----  34 [DA]  -----  1510</p> <p>1310  -----  35 [DA]  -----  1510</p> <p>40  ----- </p>																									
S/C 32 INITIAL CONDITIONS RTLT: 32h 17m 10s CCSL: B177 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	<p>1200 RTLT 32h 17m 20s</p>																									
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:	NOV 20													NOV 21												