

# VOYAGER

## Space Flight Operations Schedule (SFOS)

Issue Date: September 28, 2016

For the Period: 09/29/16 to 10/16/16 (16-273 – 16-290)

**DSN OPSCHIEF (1) 230-102**

**DSOT (1) 230-102**

\*Zsarina.Bulchand@jpl.nasa.gov  
 \*gdyke@airmail.ftops.jpl.nasa.gov  
 \*John.M.Grant@jpl.nasa.gov  
 \*dmcclena@airmail.ftops.jpl.nasa.gov  
 \*pquach@airmail.ftops.jpl.nasa.gov  
 \*mrobles@airmail.ftops.jpl.nasa.gov  
 \*rwilliam@airmail.ftops.jpl.nasa.gov

**OTHER**

\* KMassey@jgld.gdscc.nasa.gov  
 \* Belinda.Arroyo@jpl.nasa.gov  
 \*DL-DSSN-MPSETA@dsn.nasa.gov

**SCIENCE**

CRS \*bryant@mail630.gsfc.nasa.gov  
 LECP \*r.decker@jhuapl.edu  
 UVS \*holburg@argus.lpl.arizona.edu  
 MAG \*u2mha@lepvox.gsfc.nasa.gov  
 PLS \*vgr@space.mit.edu  
 PWS \*wsk@space.physics.uiowa.edu  
 \*Leonard.F.Burlaga@nasa.gov  
 \*Donald-Gurnett@uiowa.edu

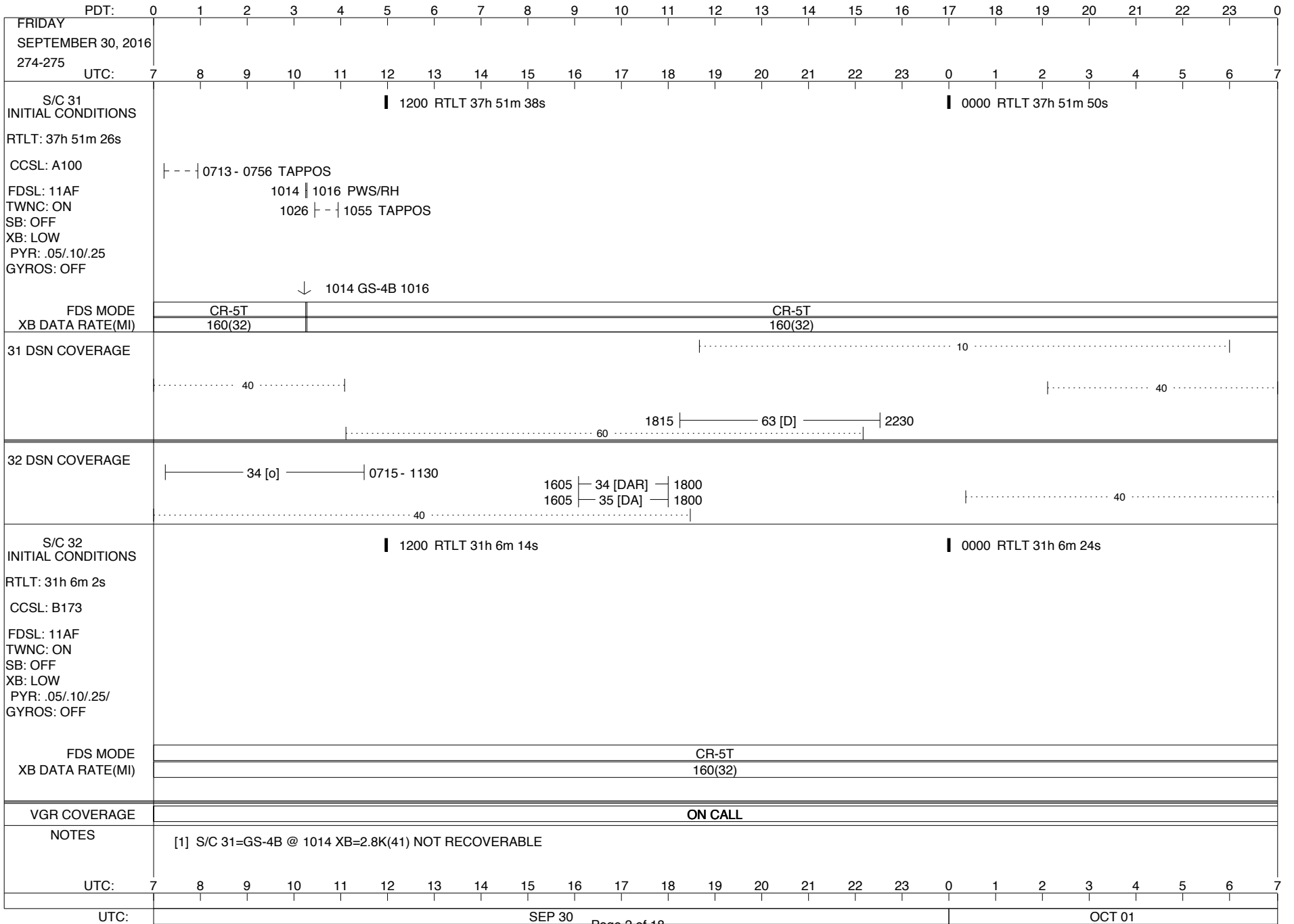
**FLIGHT TEAM (14) 600-100**

Dodd, S.  
 Hall, J.  
 Howard, S. (3)  
 Ludwig, R. (2)  
 Matsumoto, S.  
 Medina  
 Peralta, F.  
 Weeks, T.  
 Wong, R.  
 Yang, L.  
 Zottarelli, L.  
 \*odivers@san.rr.com

**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

\*Electronic Copy Only  
 (16 – Dist/N: Paper Copies)  
 09/08/10

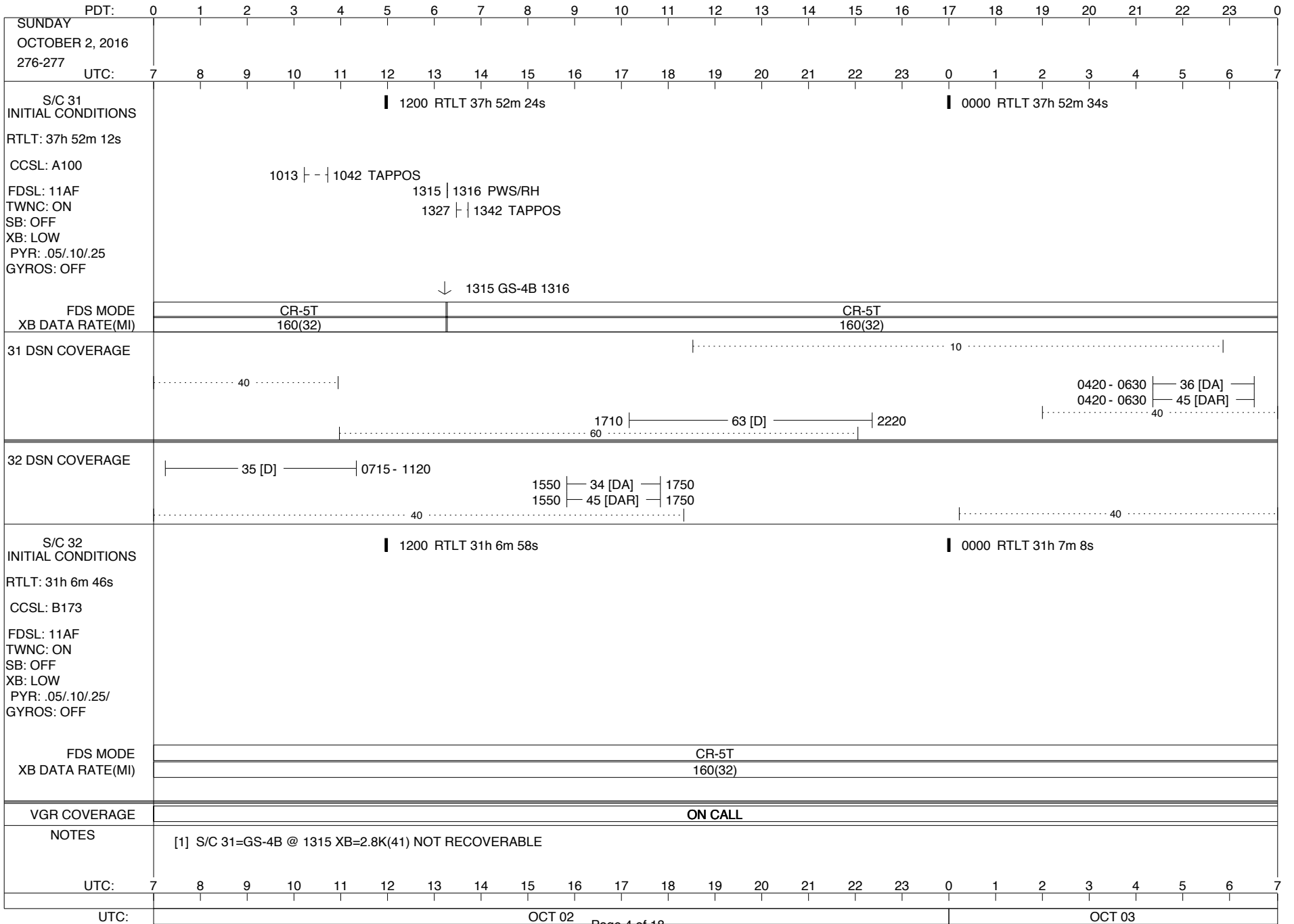




ISSUE DATE: 09/27/16 14:28

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 OCTOBER 1, 2016 275-276	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:	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: 37h 51m 50s CCSL: A100 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 37h 52m 0s												0000 RTLT 37h 52m 12s													
FDS MODE													CR-5T													
XB DATA RATE(MI)													160(32)													
31 DSN COVERAGE	.....40.....												.....10.....													
	.....60.....												1815  -----63 [D]-----  2225													
32 DSN COVERAGE	1220  -----43 [D]-----  1815												.....40.....													
S/C 32 INITIAL CONDITIONS RTLT: 31h 6m 24s CCSL: B173 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	1200 RTLT 31h 6m 36s												0000 RTLT 31h 6m 46s													
FDS MODE													CR-5T													
XB DATA RATE(MI)													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:	OCT 01													OCT 02												

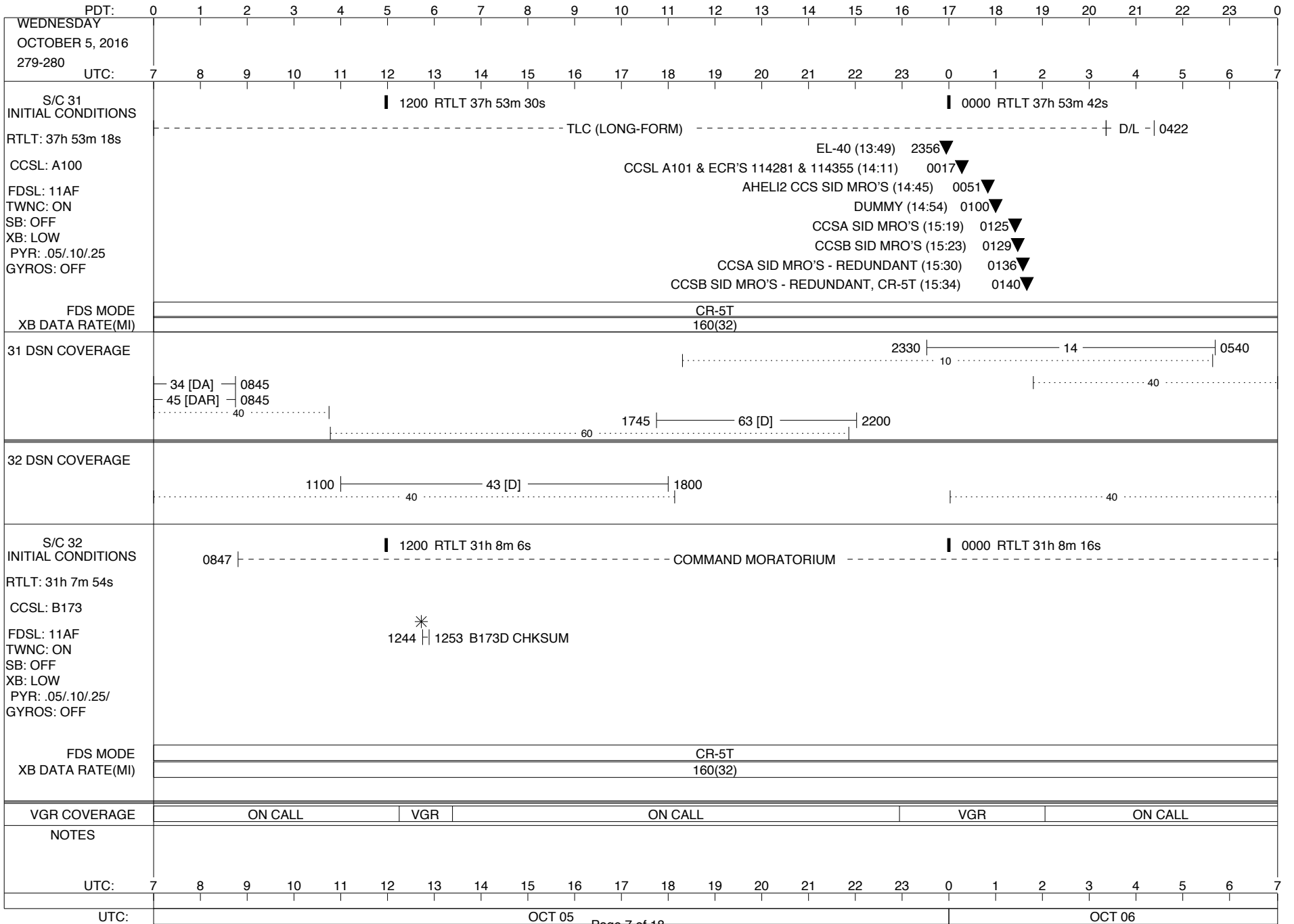
ISSUE DATE: 09/27/16 14:28





ISSUE DATE: 09/27/16 14:28

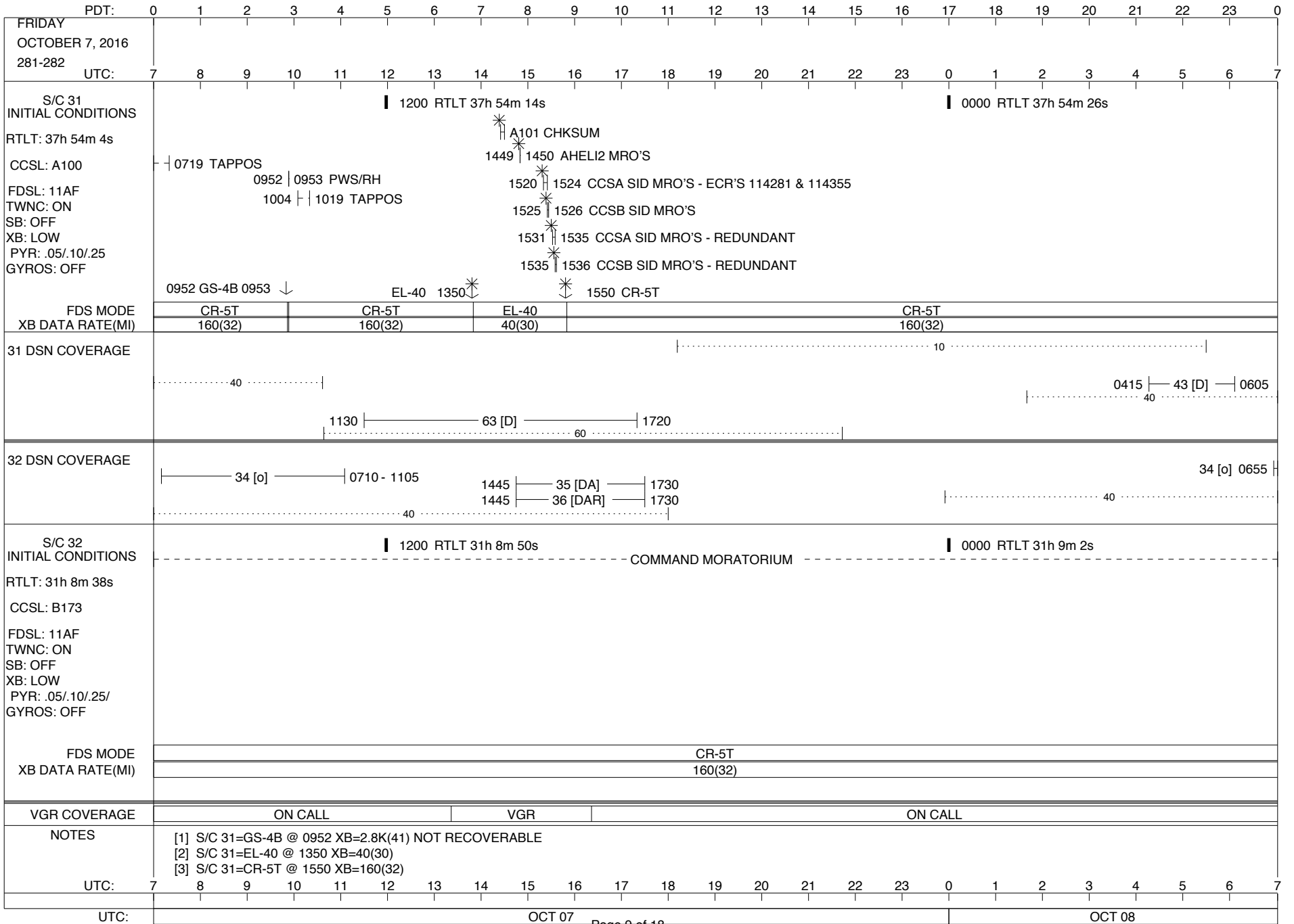
PDT:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0			
UTC:	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7			
TUESDAY OCTOBER 4, 2016 278-279																												
S/C 31 INITIAL CONDITIONS RTLTL: 37h 52m 56s CCSL: A100 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 37h 53m 8s												0000 RTLT 37h 53m 18s															
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;"> <span>40</span> <span>1110   63 [T]   1730</span> <span>40</span> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <span>40</span> <span>1410   43 [D]   1810</span> <span>40</span> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <span>34 [DA] 0630</span> <span>45 [DAR] 0630</span> </div>																											
32 DSN COVERAGE																												
S/C 32 INITIAL CONDITIONS RTLTL: 31h 7m 32s CCSL: B173 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	1200 RTLT 31h 7m 42s												0000 RTLT 31h 7m 54s															
FDS MODE	CR-5T												CR-5T															
XB DATA RATE(MI)	160(32)												160(32)															
VGR COVERAGE	ON CALL												VGR				ON CALL											
NOTES	[1] S/C 31=GS-4B @ 0338 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:	OCT 04														OCT 05													

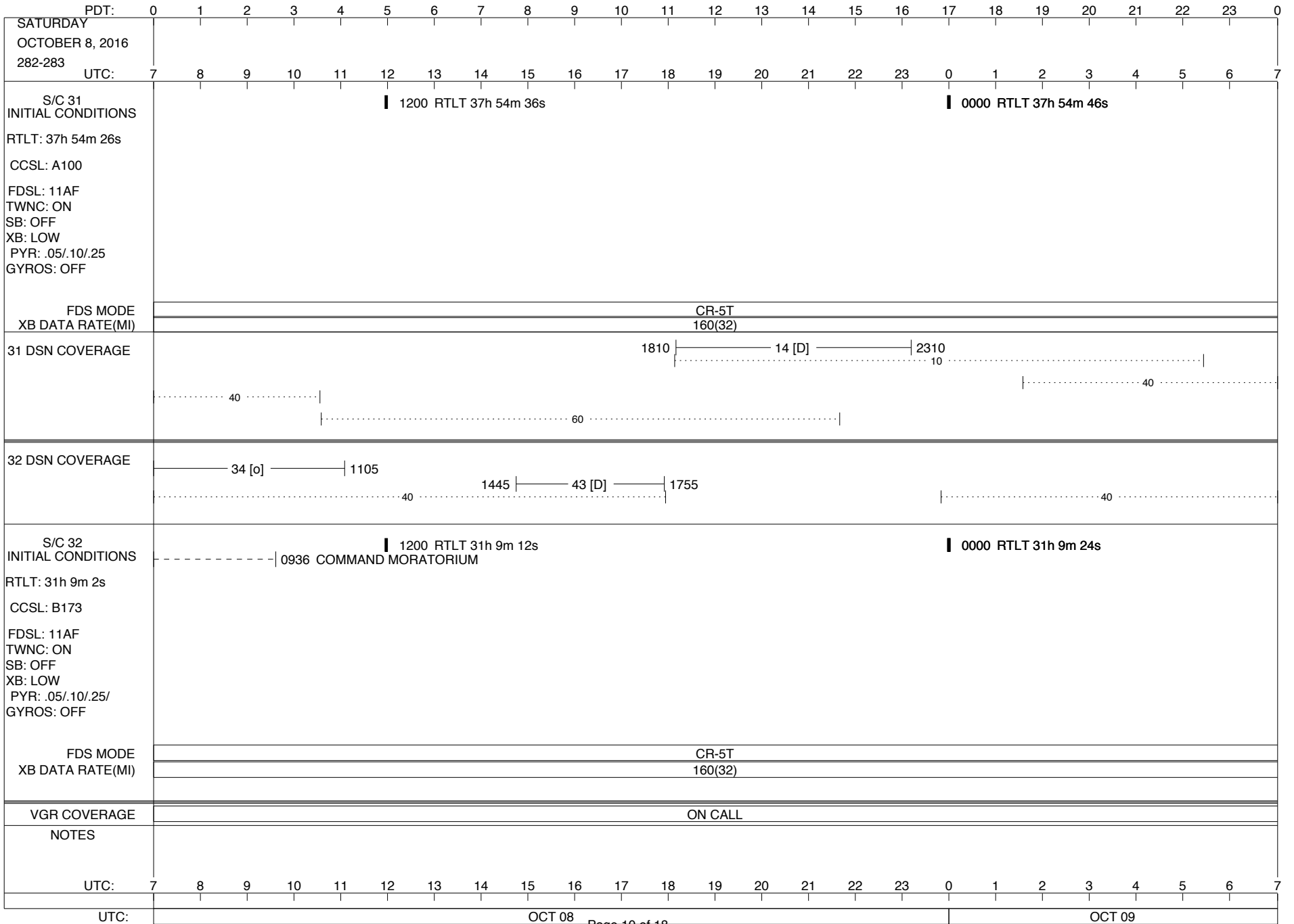




ISSUE DATE: 09/27/16 14:28

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			
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			
THURSDAY OCTOBER 6, 2016 280-281																												
S/C 31 INITIAL CONDITIONS RTLT: 37h 53m 42s CCSL: A100 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 37h 53m 52s												0000 RTLT 37h 54m 4s															
FDS MODE	CR-5T												CR-5T															
XB DATA RATE(MI)	160(32)												160(32)															
31 DSN COVERAGE	40												40															
	1530 60 63 [D] 2210																											
32 DSN COVERAGE	45 [D] 0705 - 1105 40 1450 43 [D] 1800												40															
S/C 32 INITIAL CONDITIONS RTLT: 31h 8m 16s CCSL: B173 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	1200 RTLT 31h 8m 28s												0000 RTLT 31h 8m 38s															
	----- COMMAND MORATORIUM -----																											
	1455  -----  1745 GYRO CONDITIONING MINI-SEQ ↓ 1516 FPGYRO DISA 1517   1523 DMRO ↓ 1525 BAY 1 HEATER OFF 1526  -----  1637 GYROS BC COND ↓ 1537 PYR DB = .05/.05/.05 DEG ↓ 1638 BAY 1 HEATER ON ↓ 1642 PYR DB = .05/.10/.25 DEG ↓ 1644 FPGYRO ENA 1646   1652 DMRO ↓ 1745 CR-5T																											
FDS MODE	CR-5T												EL-40				CR-5T											
XB DATA RATE(MI)	160(32)												40(30)				160(32)											
VGR COVERAGE	ON CALL												VGR				ON CALL											
NOTES	[1] S/C 31=EL-40 @ 1455 XB=40(30) [2] S/C 31=CR-5T @ 1745 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:	OCT 06														OCT 07													





ISSUE DATE: 09/27/16 14:28

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
SUNDAY OCTOBER 9, 2016 283-284	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: 37h 54m 46s CCSL: A100 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	█ 1200 RTLTL 37h 54m 58s												█ 0000 RTLTL 37h 55m 8s												
	0950     1006 TAPPOS												1253   1254 PWS/RH 1304   1305 TAPPOS												
	↓ 1252 GS-4B 1254																								
FDS MODE XB DATA RATE(MI)	CR-5T 160(32)												CR-5T 160(32)												
31 DSN COVERAGE	..... 40 .....												..... 10 .....												
	..... 1510  ----- 63 [D] -----  2155 .....												..... 0415   14 [D]   0520 .....												
32 DSN COVERAGE	0750  ----- 34 [D] -----  1100 .....												..... 40 .....												
	..... 1350  ----- 43 [D] -----  1750 .....												..... 40 .....												
S/C 32 INITIAL CONDITIONS RTLTL: 31h 9m 24s CCSL: B173 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	█ 1200 RTLTL 31h 9m 36s												█ 0000 RTLTL 31h 9m 46s												
FDS MODE XB DATA RATE(MI)													CR-5T 160(32)												
VGR COVERAGE													ON CALL												
NOTES	[1] S/C 31=GS-4B @ 1252 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:	OCT 09												OCT 10												

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 OCTOBER 10, 2016 284-285	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: 37h 55m 8s CCSL: A100 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 37h 55m 20s												0000 RTLT 37h 55m 30s													
FDS MODE XB DATA RATE(MI)	CR-5T 160(32)																									
31 DSN COVERAGE													2005  ----- 24 [DAR] -----  0005 2005  ----- 25 [DA] -----  0005  ----- 10 -----  .....40 .....  .....60 .....  .....40 .....													
32 DSN COVERAGE	0745  ----- 43 [o1] -----  1140 .....40 .....												.....40 .....													
S/C 32 INITIAL CONDITIONS RTLTL: 31h 9m 46s CCSL: B173 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	1200 RTLT 31h 9m 58s												0000 RTLT 31h 10m 10s													
FDS MODE XB DATA RATE(MI)	CR-5T 160(32)																									
VGR COVERAGE													ON CALL													
NOTES	[1] SC 32=GYRO COND MINI-SEQ 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:	OCT 10														OCT 11											

ISSUE DATE: 09/27/16 14:28

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			
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			
TUESDAY OCTOBER 11, 2016 285-286																												
S/C 31 INITIAL CONDITIONS RTLTL: 37h 55m 30s CCSL: A100 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 37h 55m 40s														0000 RTLT 37h 55m 52s													
FDS MODE	CR-5T														CR-5T													
XB DATA RATE(MI)	160(32)														160(32)													
31 DSN COVERAGE	<p>2225  ----- 25 [DAR] -----  0225  2225  ----- 26 [DA] -----  0225</p> <p>40  ----- 1045  ----- 63 [D1] -----  1500 ----- 40</p> <p>60</p>																											
32 DSN COVERAGE	<p>1005  ----- 45 [DA] -----  1715  1035  ----- 36 [DAR] -----  1715</p> <p>40</p> <p>40</p>																											
S/C 32 INITIAL CONDITIONS RTLTL: 31h 10m 10s CCSL: B173 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	1200 RTLT 31h 10m 20s														0000 RTLT 31h 10m 32s													
FDS MODE	CR-5T														CR-5T													
XB DATA RATE(MI)	160(32)														160(32)													
VGR COVERAGE	ON CALL																											
NOTES	<p>[1] A101 BACKUP U/L TRACK</p> <p>[2] S/C 31=GS-4B @ 0316 XB=2.8K(41) NOT RECOVERABLE</p>																											
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:	OCT 11														OCT 12													

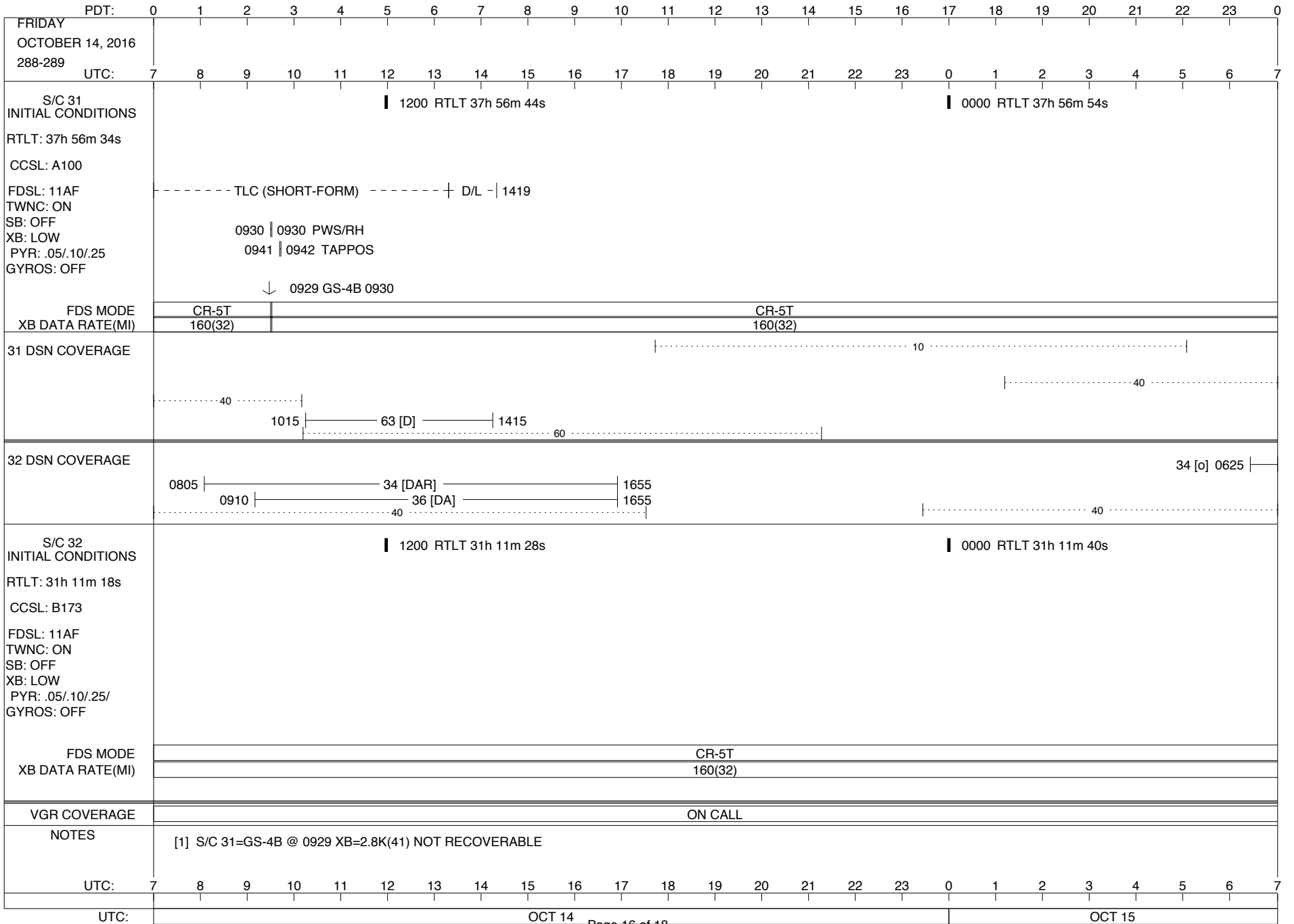
ISSUE DATE: 09/27/16 14:28

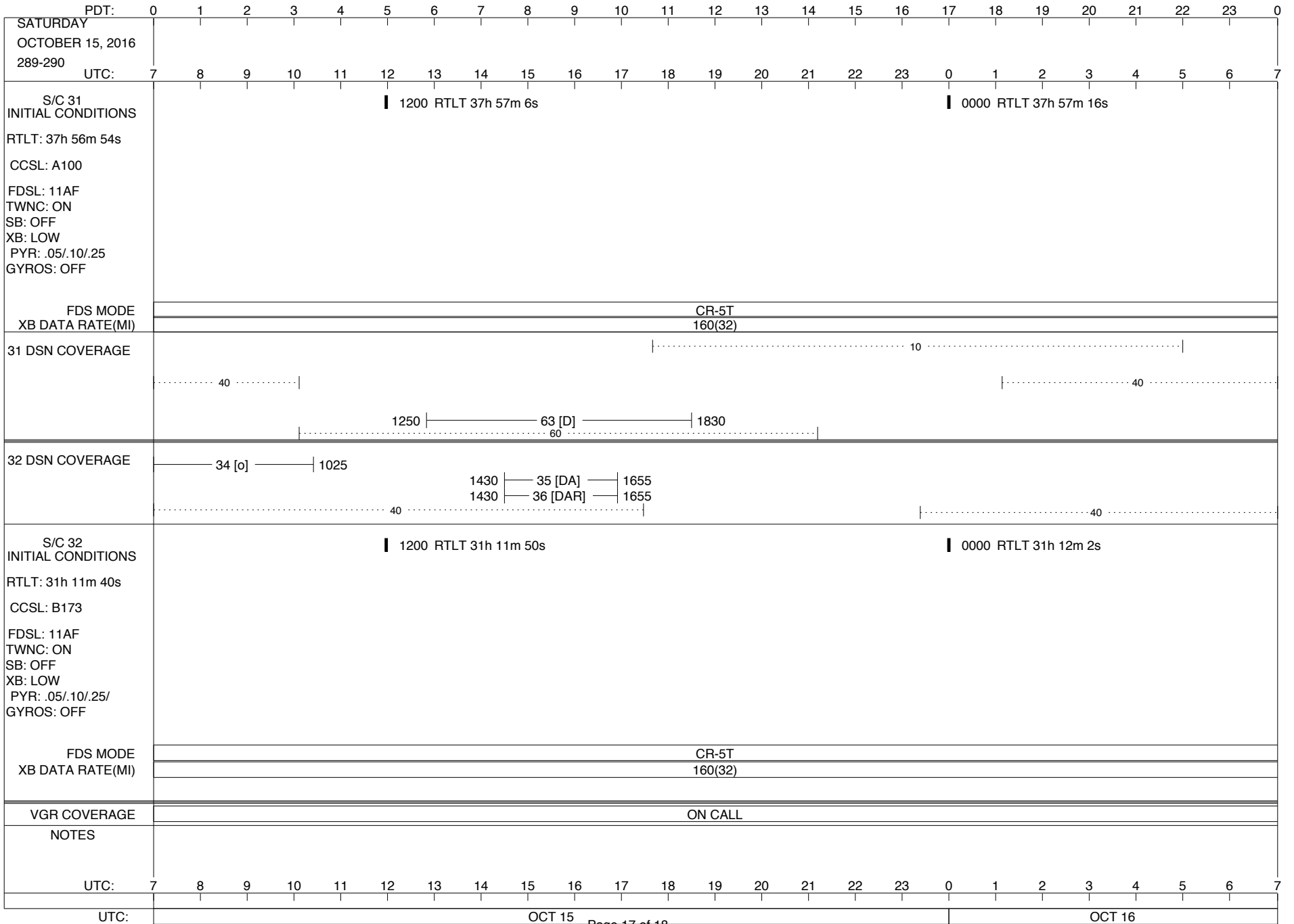
PDT:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0			
UTC:	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7			
<b>WEDNESDAY</b> OCTOBER 12, 2016 286-287																												
S/C 31 <b>INITIAL CONDITIONS</b> RTLT: 37h 55m 52s CCSL: A100 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 37h 56m 2s														0000 RTLT 37h 56m 12s													
FDS MODE XB DATA RATE(MI)															CR-5T 160(32)													
<b>31 DSN COVERAGE</b>	<p>Detailed description: This chart shows coverage for 31 DSN. It features a horizontal axis representing time from UTC 07:00 to 07:00. A solid line indicates coverage duration, with segments from 2200 to 0505 and 0945 to 1735. A dotted line shows signal strength, with values of 40 and 60. A vertical dashed line at 14:00 is labeled '14 [T]'. A note 'U/L 2255   -   - - - - - TLC (SHORT-FORM)' is present.</p>																											
<b>32 DSN COVERAGE</b>	<p>Detailed description: This chart shows coverage for 32 DSN. It features a horizontal axis representing time from UTC 07:00 to 07:00. A solid line indicates coverage duration from 0945 to 1735. A dotted line shows signal strength with a value of 40. A note '43 [o]' is present near the 1735 mark.</p>																											
S/C 32 <b>INITIAL CONDITIONS</b> RTLT: 31h 10m 32s CCSL: B173 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	1200 RTLT 31h 10m 44s														0000 RTLT 31h 10m 54s													
FDS MODE XB DATA RATE(MI)															CR-5T 160(32)													
<b>VGR COVERAGE</b>	ON CALL														VGR				ON CALL									
<b>NOTES</b>																												
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:	OCT 12														OCT 13													

ISSUE DATE: 09/27/16 14:28

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 OCTOBER 13, 2016 287-288																									
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: 37h 56m 12s CCSL: A100 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 37h 56m 24s												0000 RTLT 37h 56m 34s												
FDS MODE XB DATA RATE(MI)	CR-5T 160(32)												CR-5T 160(32)												
31 DSN COVERAGE	.....40.....												1950  ----- 24 [DAR] -----  2350 1950  ----- 25 [DA] -----  2350 .....10.....												
32 DSN COVERAGE	----- 35 [D] -----  0715 - 1035 .....40.....												1350  ----- 43 [B] -----  1735 .....40.....												
S/C 32 INITIAL CONDITIONS RTLT: 31h 10m 54s CCSL: B173 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	1200 RTLT 31h 11m 6s												0000 RTLT 31h 11m 18s												
FDS MODE XB DATA RATE(MI)	CR-5T 160(32)												CR-5T 160(32)												
VGR COVERAGE	ON CALL						VGR						ON CALL												
NOTES	▼ 1427 DUMMY (5 MIN BRACKETED 21:39)																								
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:	OCT 13												OCT 14												







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		
SUNDAY OCTOBER 16, 2016 290-291	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: 37h 57m 16s CCSL: A100 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	<p style="text-align: center;">█ 1200 RTLTL 37h 57m 26s</p> <p>0928 █ 0929 TAPPOS</p> <p>1230 █ 1231 PWS/RH</p> <p>1241 █ 1254 TAPPOS</p> <p style="text-align: center;">↓ 1229 GS-4B 1231</p>																										
FDS MODE XB DATA RATE(MI)	CR-5T 160(32)													CR-5T 160(32)													
31 DSN COVERAGE	<p>.....40..... </p> <p style="text-align: center;"> .....60..... </p>													<p>1945  ----- 25 [DAR] -----  2345</p> <p>1945  ----- 26 [DA] -----  2345</p>													
32 DSN COVERAGE	<p>1050  ----- 35 [DA] -----  1650</p> <p>1050  ----- 36 [DAR] -----  1650</p> <p style="text-align: center;">.....40..... </p>																										
S/C 32 INITIAL CONDITIONS RTLTL: 31h 12m 2s CCSL: B173 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	<p style="text-align: center;">█ 1200 RTLTL 31h 12m 14s</p>																										
FDS MODE XB DATA RATE(MI)	CR-5T 160(32)																										
VGR COVERAGE	ON CALL																										
NOTES	[1] S/C 31=GS-4B @ 1229 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:	OCT 16													OCT 17													