

VOYAGER

Space Flight Operations Schedule (SFOS)

Issue Date: December 16, 2015

For the Period: 12/17/15 to 01/04/16 (15-349 – 16-004)

DSN OPSCHIEF (1) 230-102

DSOT (1) 230-102

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 *gdyke@airmail.ftops.jpl.nasa.gov
 *John.M.Grant@jpl.nasa.gov
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 *mrobles@airmail.ftops.jpl.nasa.gov
 *rwilliam@airmail.ftops.jpl.nasa.gov

OTHER

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 * Belinda.Arroyo@jpl.nasa.gov
 *DL-DSSN-MPSETA@dsn.nasa.gov

SCIENCE

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 PLS *vgr@space.mit.edu
 PWS *wsk@space.physics.uiowa.edu
 *Leonard.F.Burlaga@nasa.gov
 *Donald-Gurnett@uiowa.edu

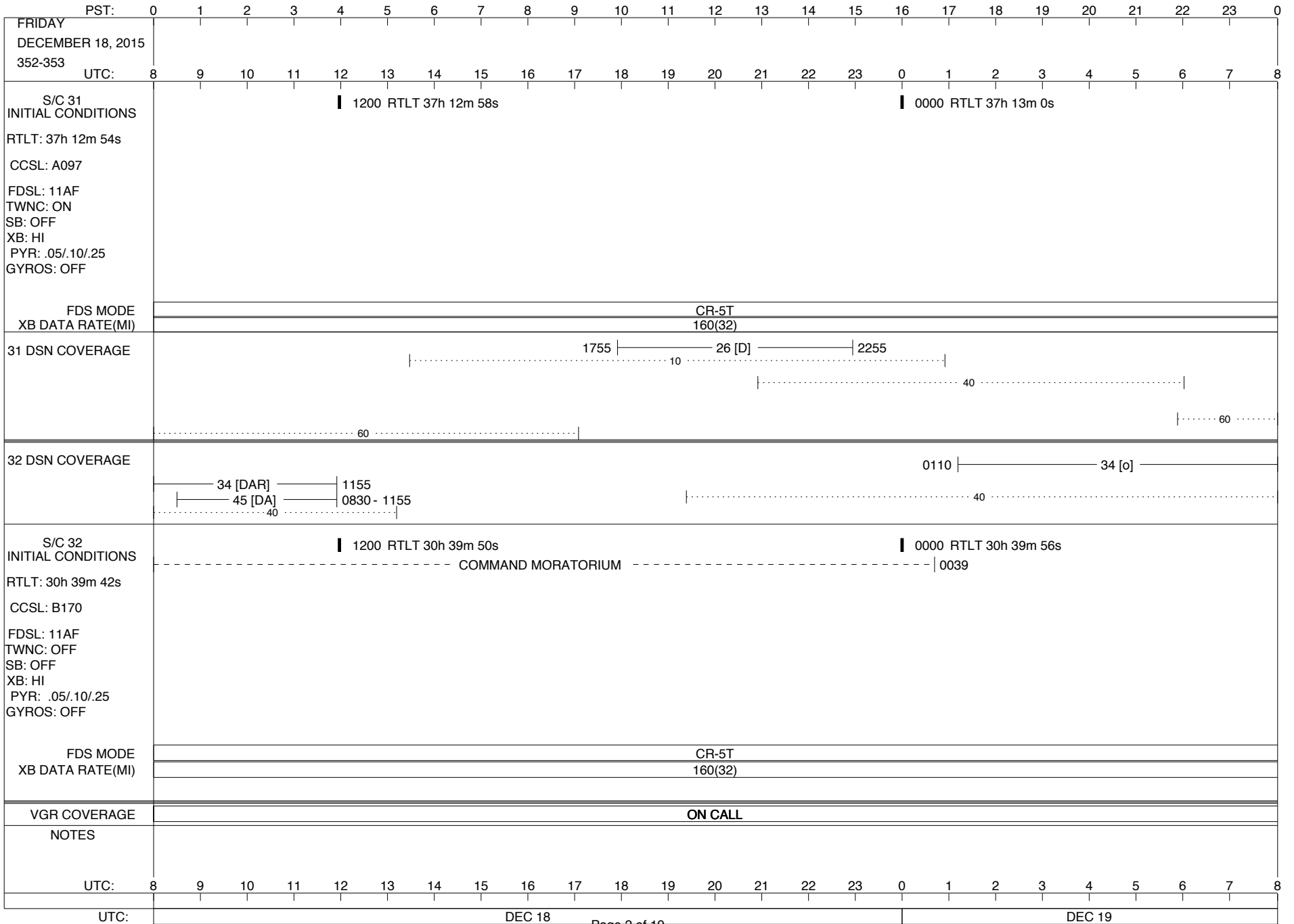
FLIGHT TEAM (14) 600-100

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

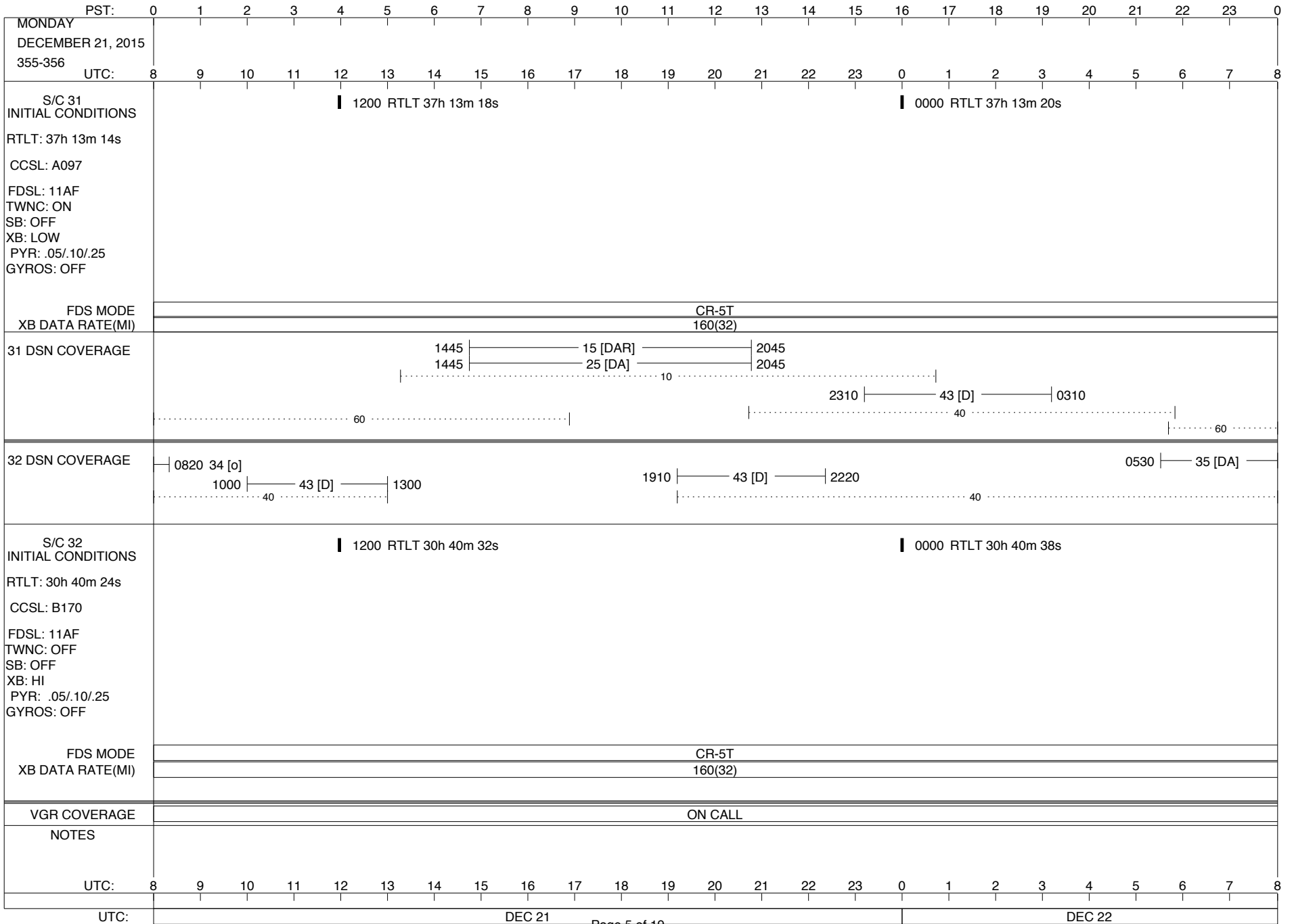
*Electronic Copy Only
 (16 – Dist/N: Paper Copies)
 09/08/10

ISSUE DATE: 12/17/15 06:58



ISSUE DATE: 12/17/15 06:58

| 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 | |
|---|---|---|----|----|----|----|----|----|----|----|----|----|---|----|----|----|----|----|----|----|----|----|----|----|---|--|
| SUNDAY DECEMBER 20, 2015 354-355 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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: 37h 13m 8s CCSL: A097 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/10/25 GYROS: OFF | █ 1200 RTLT 37h 13m 12s | | | | | | | | | | | | █ 0000 RTLT 37h 13m 14s | | | | | | | | | | | | | |
| | 0855 0857 PWS/RH 0907 TAPPOS - 1045 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | ↓ 0855 GS-4B 0857 | | | | | | | | | | | | | | | | | | | | | | | | | |
| FDS MODE XB DATA RATE(MI) | CR-5T | | | | | | | | | | | | CR-5T 160(32) | | | | | | | | | | | | | |
| 31 DSN COVERAGE | 1320 ----- 14 [D] ----- 1720 | | | | | | | | | | | | 10 40 60 | | | | | | | | | | | | | |
| 32 DSN COVERAGE | 1000 ----- 43 [D] ----- 1305 | | | | | | | | | | | | 40 40 0400 ----- 34 [o] ----- | | | | | | | | | | | | | |
| S/C 32 INITIAL CONDITIONS RTLT: 30h 40m 10s CCSL: B170 FDSL: 11AF TWNC: OFF SB: OFF XB: HI PYR: .05/10/25 GYROS: OFF | █ 1200 RTLT 30h 40m 18s | | | | | | | | | | | | █ 0000 RTLT 30h 40m 24s | | | | | | | | | | | | | |
| FDS MODE XB DATA RATE(MI) | | | | | | | | | | | | | CR-5T 160(32) | | | | | | | | | | | | | |
| VGR COVERAGE | | | | | | | | | | | | | ON CALL | | | | | | | | | | | | | |
| NOTES | [1] S/C 31=GS-4B @ 0855 XB=2.8K(41) NOT RECOVERABLE | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 20 | | | | | | | | | | | | DEC 21 | | | | | | | | | | | | | |



ISSUE DATE: 12/17/15 06:58

| 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 23, 2015 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 357-358 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | █ 1200 RTLT 37h 13m 30s | | | | | | | | | | | | | | █ 0000 RTLT 37h 13m 32s | | | | | | | | | | | | | |
| RTLT: 37h 13m 26s | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCSL: A097 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | <p>Timeline for 31 DSN COVERAGE:</p> <ul style="list-style-type: none"> 1710 - 1800 [DA] (90 min) 1710 - 1800 [DAR] (90 min) 1350 - 1710 [DAR] (360 min) 1350 - 1710 [DA] (360 min) 1530 - 1710 [DA] (180 min) 0535 - 0600 [D] (65 min) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 DSN COVERAGE | | <p>Timeline for 32 DSN COVERAGE:</p> <ul style="list-style-type: none"> 1115 - 1115 (0 min) 0810 - 1115 (305 min) 1110 - 1250 (140 min) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S/C 32 INITIAL CONDITIONS | | █ 1200 RTLT 30h 40m 58s | | | | | | | | | | | | | | █ 0000 RTLT 30h 41m 4s | | | | | | | | | | | | | |
| RTLT: 30h 40m 52s | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCSL: B170 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FDSL: 11AF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TWNC: OFF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SB: OFF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XB: HI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PYR: .05/10/25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GYROS: OFF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FDS MODE | | CR-5T | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XB DATA RATE(MI) | | 160(32) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| VGR COVERAGE | | ON CALL | | | | | | | VGR | | | | | | | ON CALL | | | | | | | | | | | | | |
| NOTES | | <p>▼ 1217 DUMMY (5 MIN BRACKETED 18:58)</p> <p>0324 0330 CCSTIMB FINE</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 23 | | | | | | | | | | | | | | DEC 24 | | | | | | | | | | | | | |

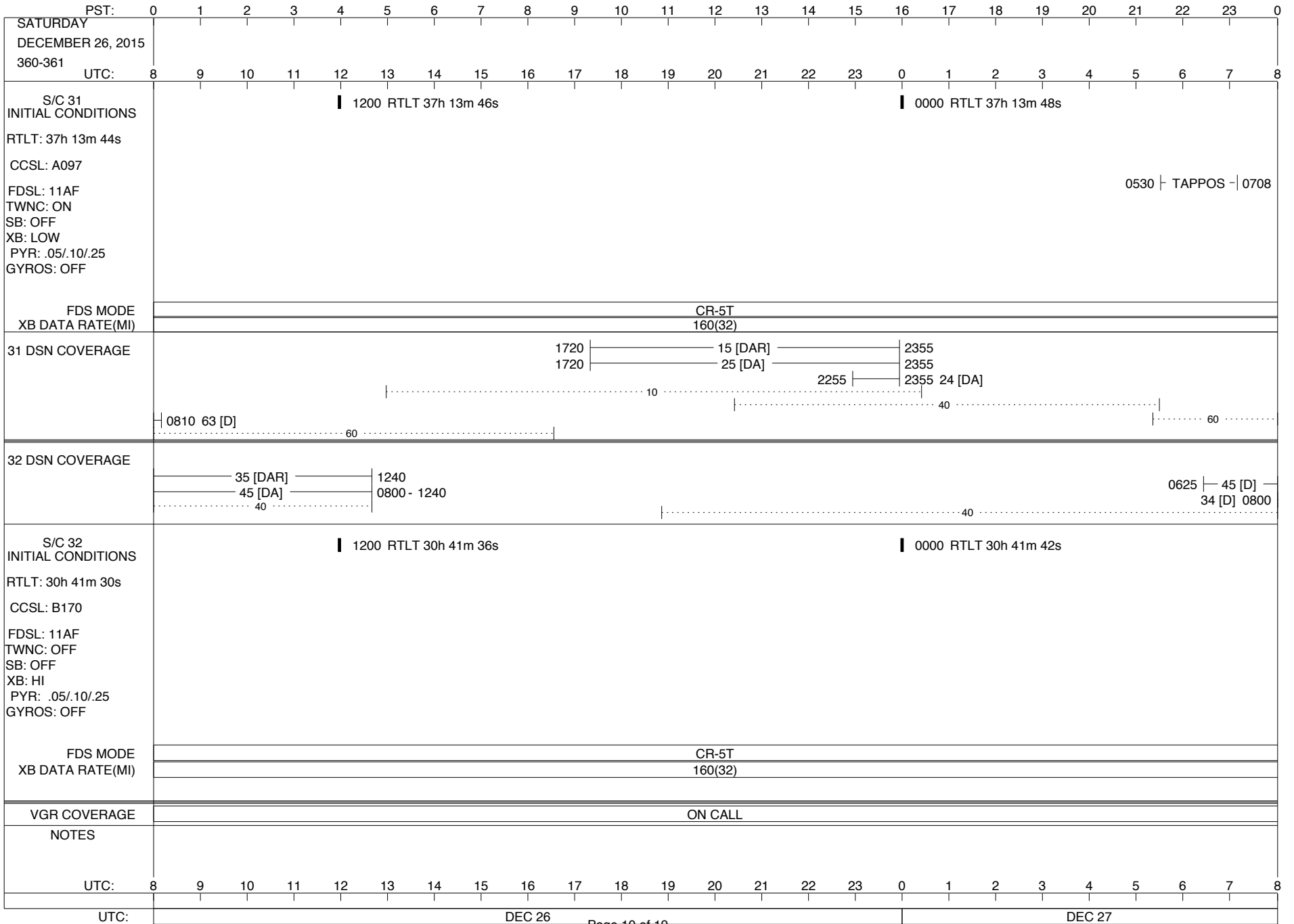
ISSUE DATE: 12/17/15 06:58

| 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 24, 2015 358-359 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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: 37h 13m 32s CCSL: A097 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/10/25 GYROS: OFF | 1200 RTLTL 37h 13m 36s | | | | | | | | | | | | 0000 RTLTL 37h 13m 38s | | | | | | | | | | | | |
| FDS MODE | CR-5T | | | | | | | | | | | | CR-5T | | | | | | | | | | | | |
| XB DATA RATE(MI) | 160(32) | | | | | | | | | | | | 160(32) | | | | | | | | | | | | |
| 31 DSN COVERAGE | <p>1305 ----- 14 [D] ----- 1705</p> <p>0815 63 [D] ----- 60 ----- </p> <p>0610 ----- 63 [D] ----- </p> | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 DSN COVERAGE | <p>0850 ----- 43 [D] ----- 1250</p> <p>40 ----- 40 ----- </p> | | | | | | | | | | | | | | | | | | | | | | | | |
| S/C 32 INITIAL CONDITIONS RTLTL: 30h 41m 4s CCSL: B170 FDSL: 11AF TWNC: OFF SB: OFF XB: HI PYR: .05/10/25 GYROS: OFF | 1200 RTLTL 30h 41m 10s | | | | | | | | | | | | 0000 RTLTL 30h 41m 18s | | | | | | | | | | | | |
| 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 @ 0531 XB=2.8K(41) NOT RECOVERABLE 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: | DEC 24 | | | | | | | | | | | | DEC 25 | | | | | | | | | | | | |

ISSUE DATE: 12/17/15 06:58

| | 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 25, 2015 359-360 | 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: 37h 13m 38s CCSL: A097 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF | | | | | | 1200 | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FDS MODE XB DATA RATE(MI) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 31 DSN COVERAGE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 DSN COVERAGE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S/C 32 INITIAL CONDITIONS RTLT: 30h 41m 18s CCSL: B170 FDSL: 11AF TWNC: OFF SB: OFF XB: HI PYR: .05/.10/.25 GYROS: OFF | | | | | | 1200 | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FDS MODE XB DATA RATE(MI) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| VGR COVERAGE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 25 | | | | | | | | | | | | DEC 26 | | | | | | | | | | | | | |

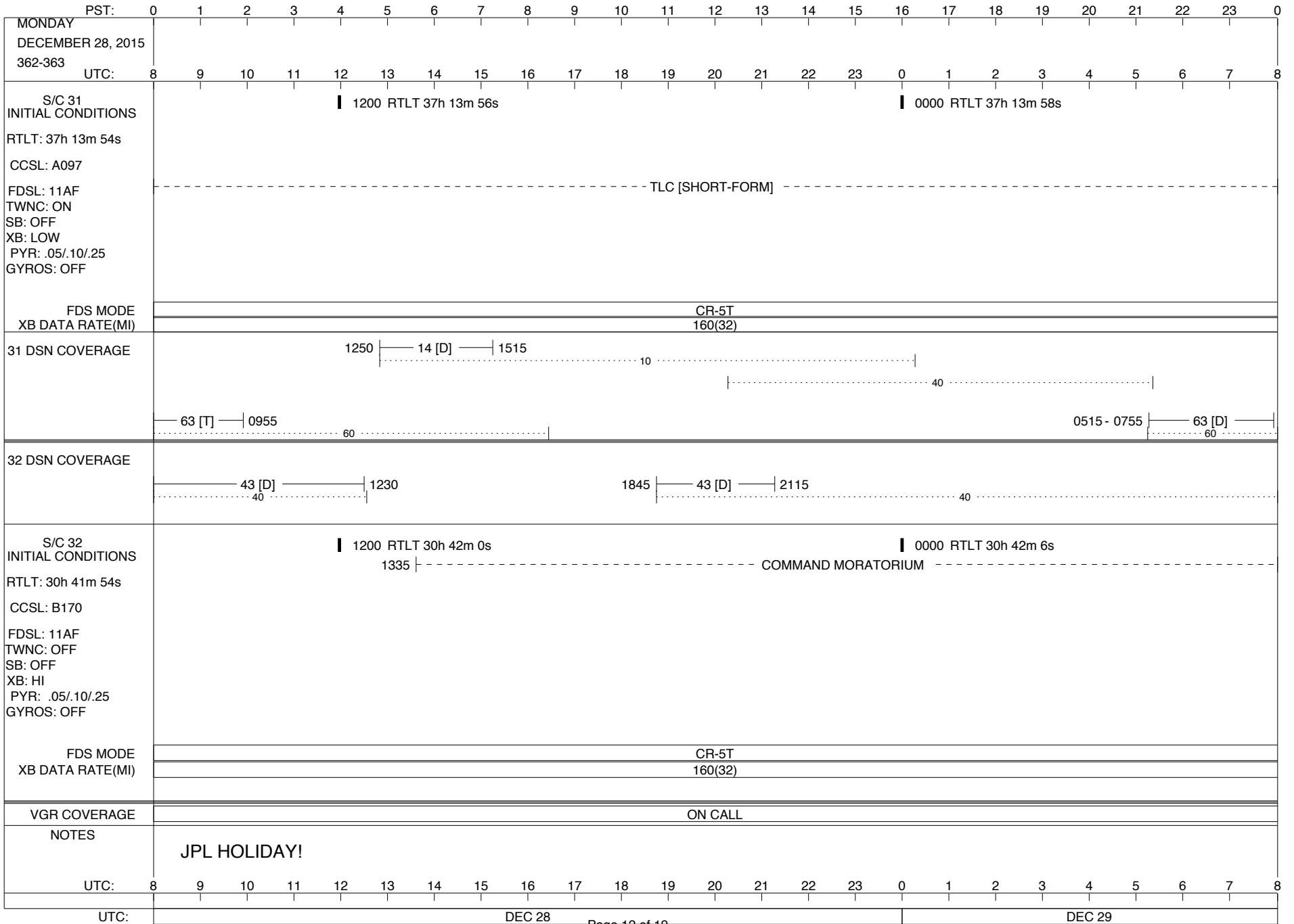
ISSUE DATE: 12/17/15 06:58



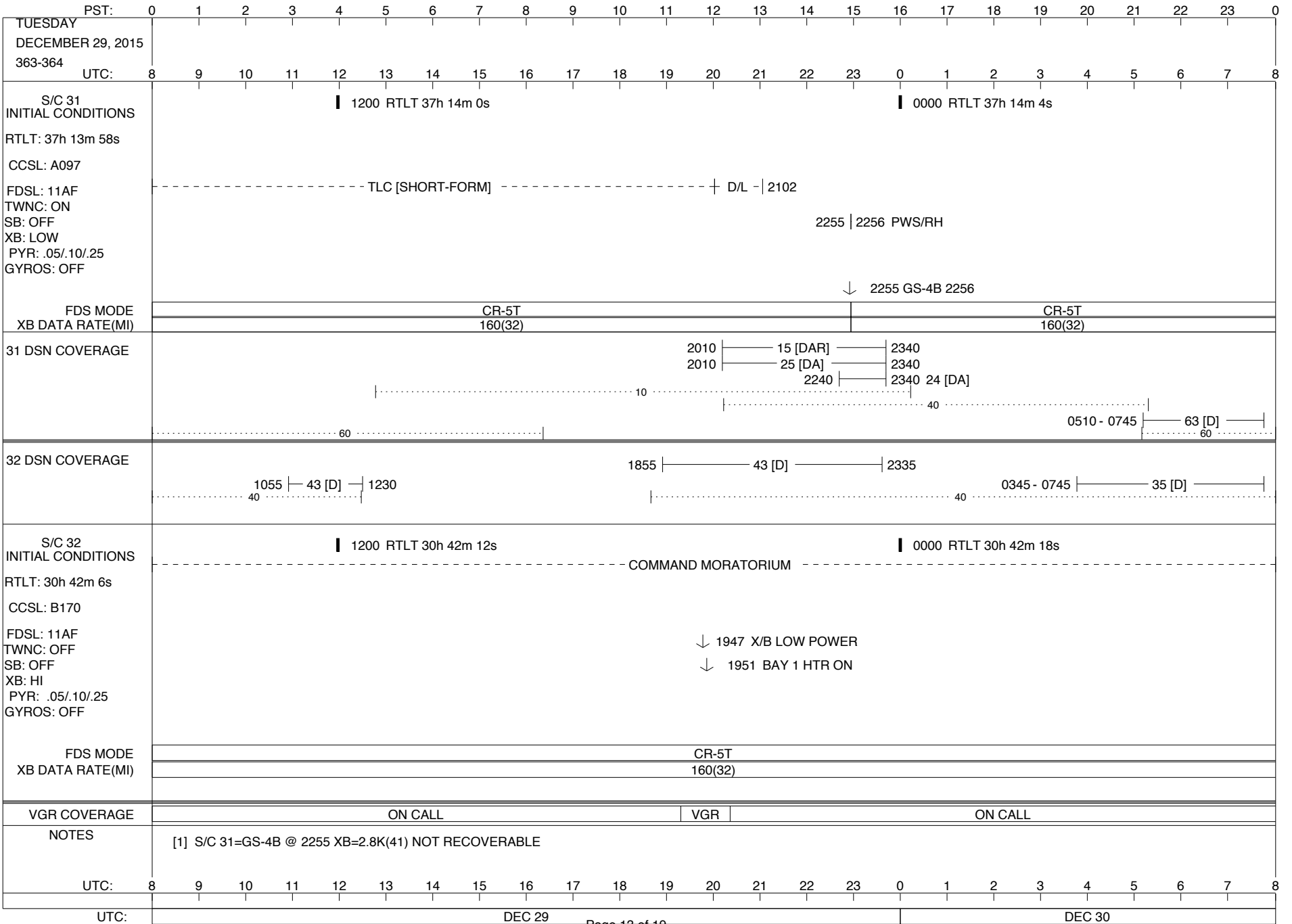
ISSUE DATE: 12/17/15 06:58

| 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 | |
|--|---|---|----|----|----|----|----|----|----|----|----|----|--|--------|----|----|----|----|----|----|----|----|----|----|---|--|
| SUNDAY DECEMBER 27, 2015 361-362 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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: 37h 13m 48s CCSL: A097 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/10/25 GYROS: OFF | █ 1200 RTLTL 37h 13m 52s | | | | | | | | | | | | █ 0000 RTLTL 37h 13m 54s | | | | | | | | | | | | | |
| | █ 0831 - 0833 PWS/RH TAPPOS 0843 - 1008 | | | | | | | | | | | | U/L 0620 - TLC [SHORT-FORM] - - - - - | | | | | | | | | | | | | |
| | ↓ 0831 GS-4B 0833 | | | | | | | | | | | | | | | | | | | | | | | | | |
| FDS MODE | | | | | | | | | | | | | CR-5T | | | | | | | | | | | | | |
| XB DATA RATE(MI) | | | | | | | | | | | | | 160(32) | | | | | | | | | | | | | |
| 31 DSN COVERAGE | 1255 ----- 14 [D] ----- 1655 | | | | | | | | | | | | 10 40 60 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | 0555 ----- 63 [T] ----- 60 | | | | | | | | | | | | | |
| 32 DSN COVERAGE | 45 [D] ----- 1050 | | | | | | | | | | | | 1850 ----- 43 [D] ----- 2340 | | | | | | | | | | | | | |
| | 34 [D] ----- 0800 - 1050 | | | | | | | | | | | | 40 | | | | | | | | | | | | | |
| | 40 | | | | | | | | | | | | 43 [D] 0730 ----- | | | | | | | | | | | | | |
| S/C 32 INITIAL CONDITIONS RTLTL: 30h 41m 42s CCSL: B170 FDSL: 11AF TWNC: OFF SB: OFF XB: HI PYR: .05/10/25 GYROS: OFF | █ 1200 RTLTL 30h 41m 48s | | | | | | | | | | | | █ 0000 RTLTL 30h 41m 54s | | | | | | | | | | | | | |
| FDS MODE | | | | | | | | | | | | | CR-5T | | | | | | | | | | | | | |
| XB DATA RATE(MI) | | | | | | | | | | | | | 160(32) | | | | | | | | | | | | | |
| VGR COVERAGE | | | | | | | | | | | | | ON CALL | | | | | | | | | | | | | |
| NOTES | [1] S/C 31=GS-4B @ 0831 XB=2.8K(41) NOT RECOVERABLE | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 27 | | | | | | | | | | | | | DEC 28 | | | | | | | | | | | | |

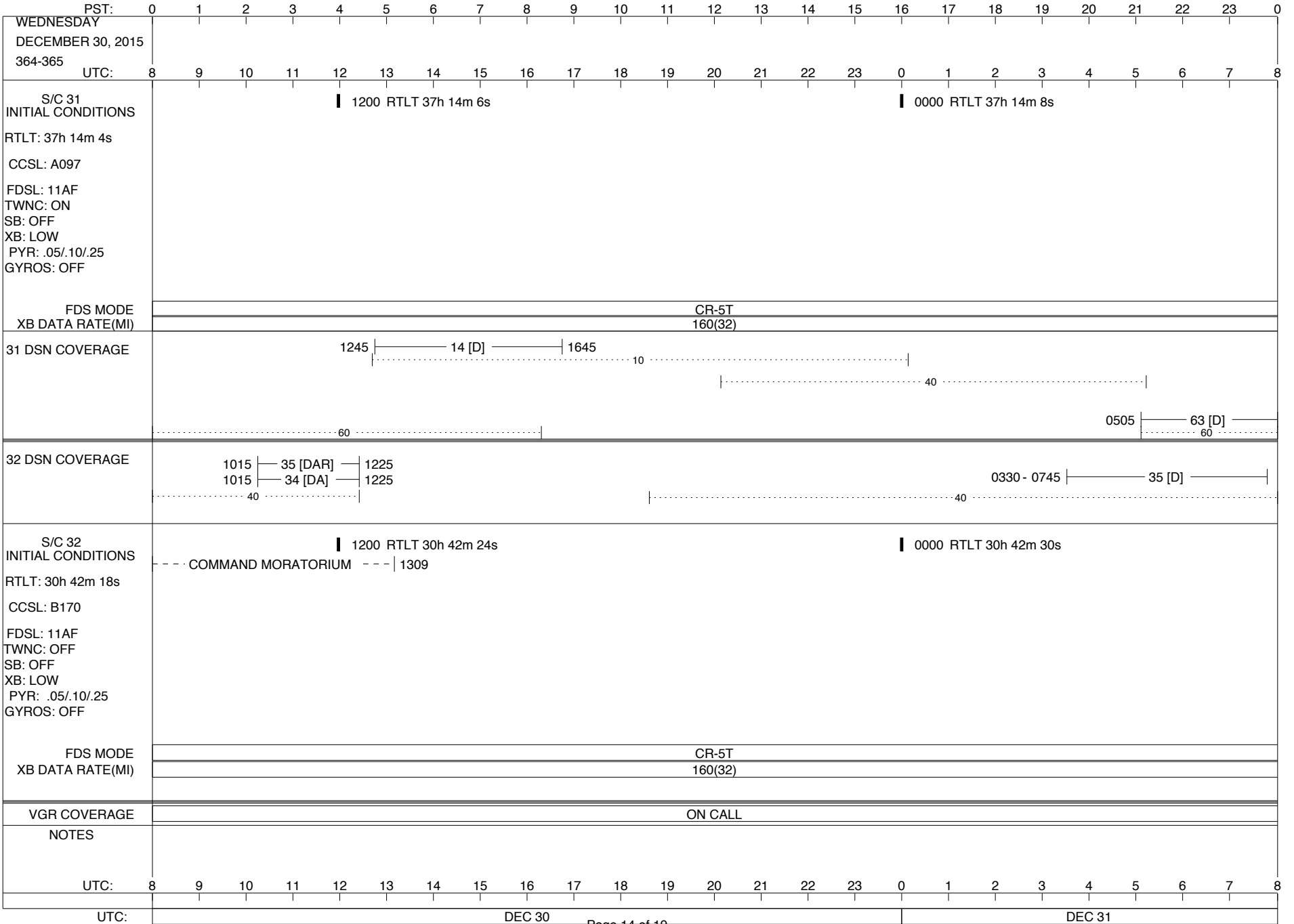
ISSUE DATE: 12/17/15 06:58



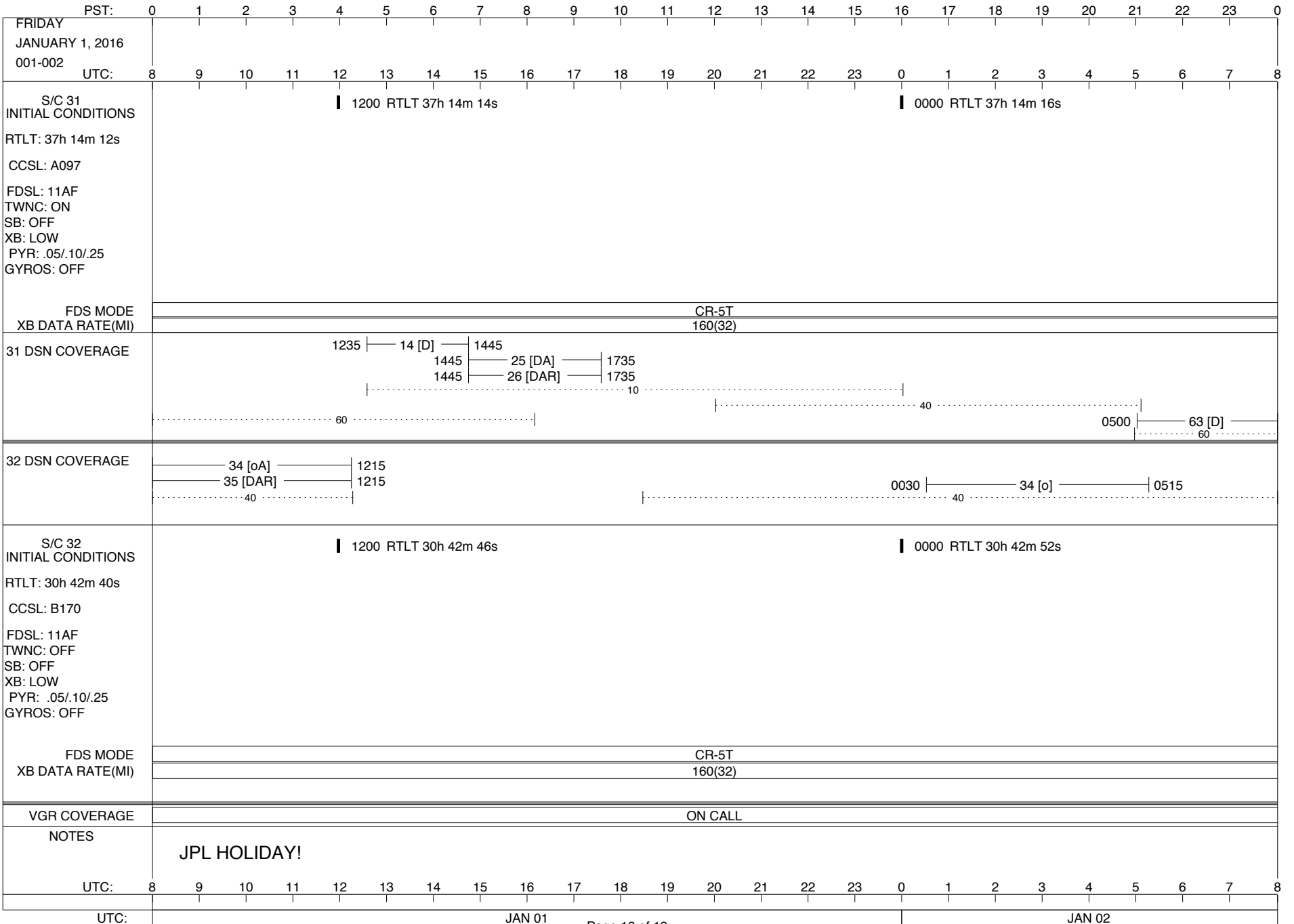
ISSUE DATE: 12/17/15 06:58



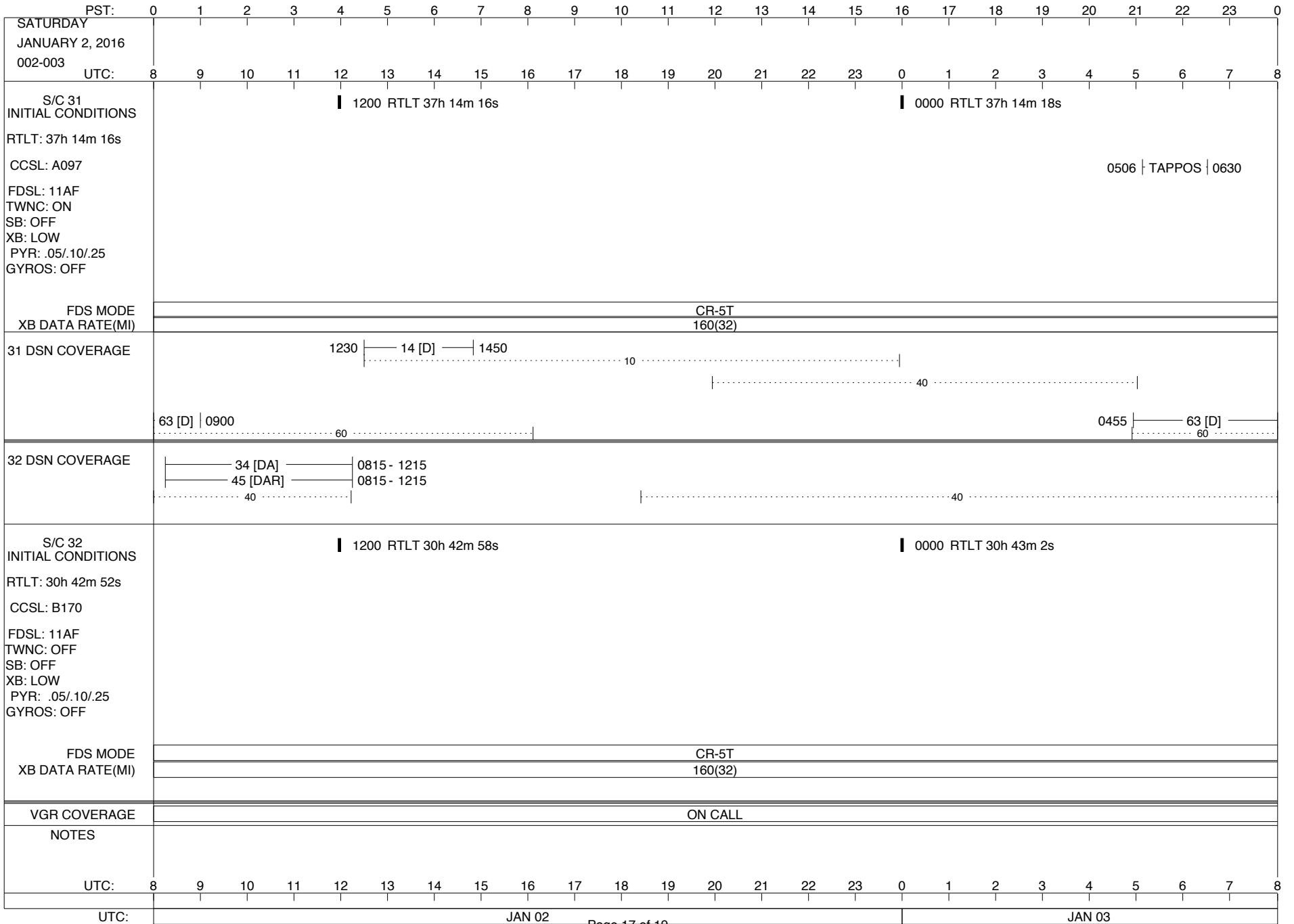
ISSUE DATE: 12/17/15 06:58



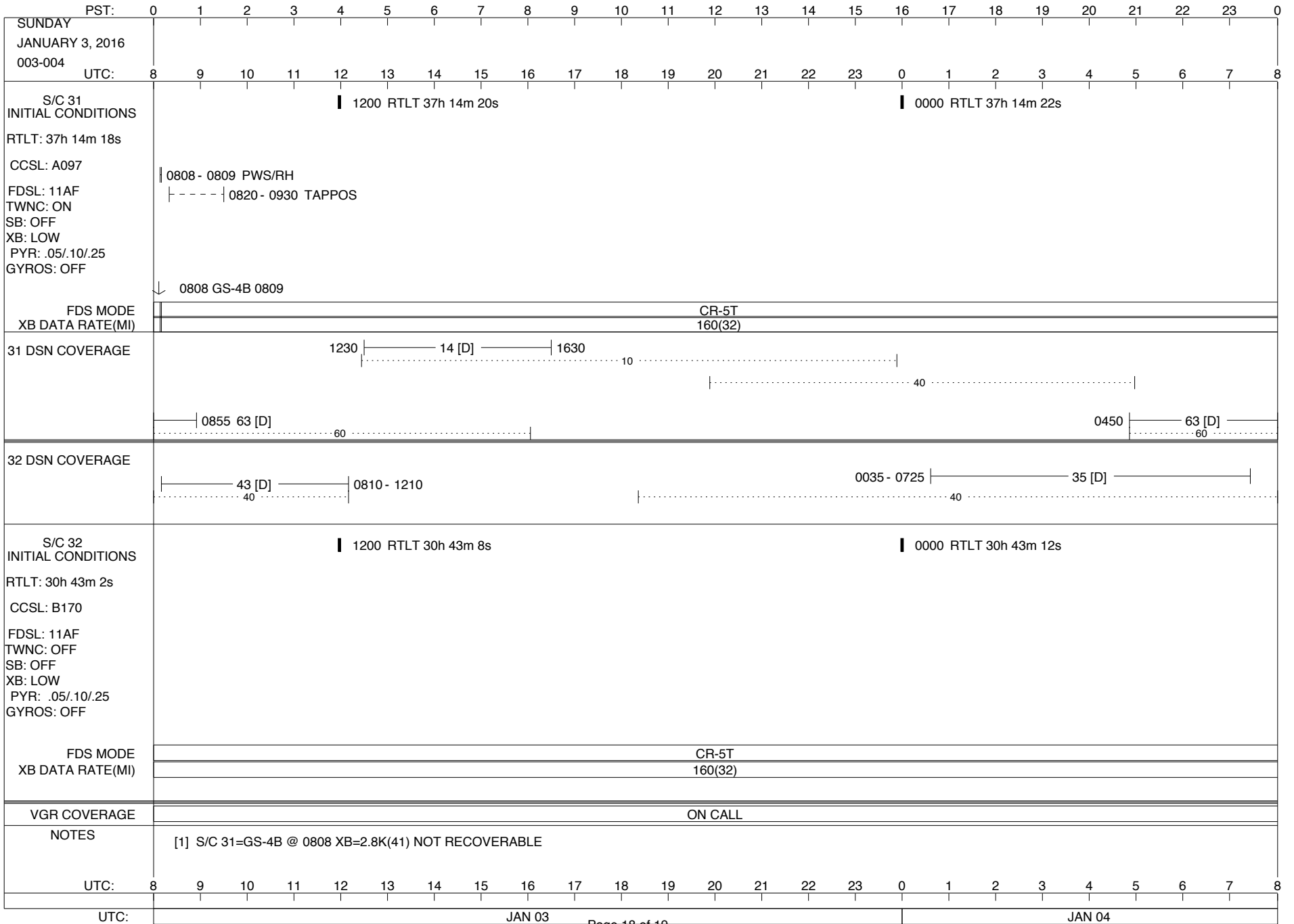
ISSUE DATE: 12/17/15 06:58



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ISSUE DATE: 12/17/15 06:58



ISSUE DATE: 12/17/15 06:58

| 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 JANUARY 4, 2016 004-005 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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: 37h 14m 22s CCSL: A097 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/10/25 GYROS: OFF | <div style="text-align: center;"> <p>1200 RTLT 37h 14m 24s</p> </div> | | | | | | | | | | | | | | | | | | | | | | | | |
| FDS MODE XB DATA RATE(MI) | | | | | | | | | | | | | CR-5T 160(32) | | | | | | | | | | | | |
| 31 DSN COVERAGE | <div style="text-align: center;"> </div> | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 DSN COVERAGE | <div style="text-align: center;"> </div> | | | | | | | | | | | | | | | | | | | | | | | | |
| S/C 32 INITIAL CONDITIONS RTLT: 30h 43m 12s CCSL: B170 FDSL: 11AF TWNC: OFF SB: OFF XB: LOW PYR: .05/10/25 GYROS: OFF | <div style="text-align: center;"> <p>1200 RTLT 30h 43m 18s</p> </div> | | | | | | | | | | | | | | | | | | | | | | | | |
| 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: | JAN 04 | | | | | | | | | | | | JAN 05 | | | | | | | | | | | | |