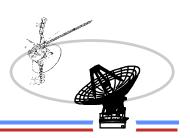
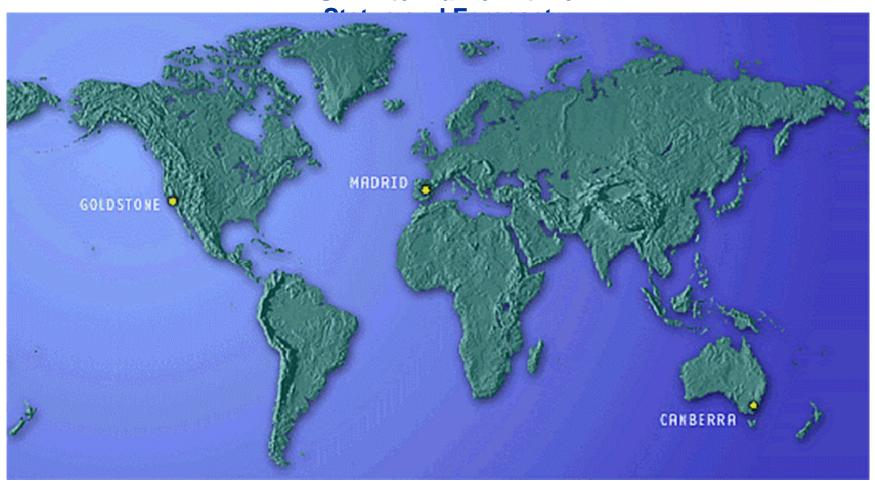


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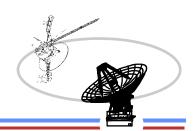
#### **DSN Antenna Downtime**



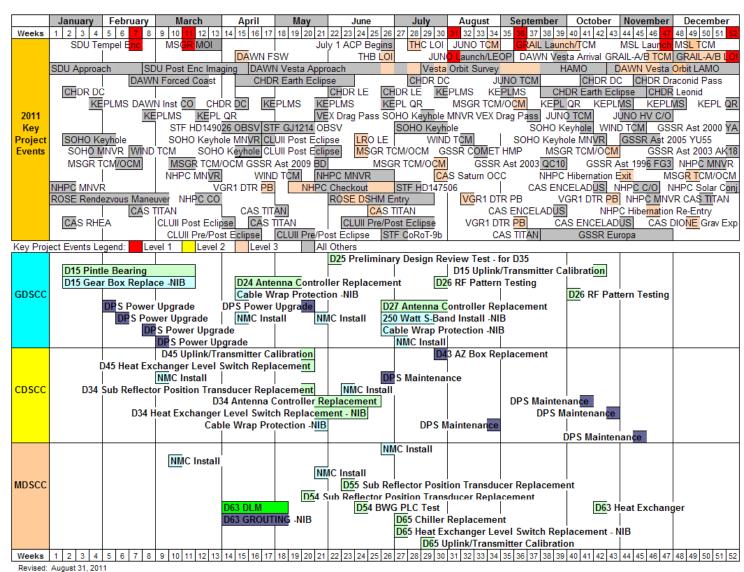
# (ASA)

## Interplanetary Network Directorate (IND) Deep Space Network (DSN)

#### Resource Allocation Planning Service

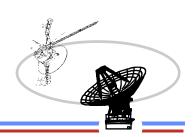


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- 2011 -



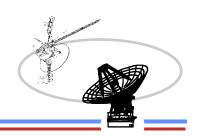


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|        |                        | 2011             |                  |                 |         |              |         |
|--------|------------------------|------------------|------------------|-----------------|---------|--------------|---------|
| Site   | Details                | Start            | End              | Duration (Days) | Weeks   | Start<br>DOY | End DOY |
| DSS 26 | RF Pattern Testing     | 10/03/2011 00:00 | 10/06/2011 02:20 | 3               | 40 - 40 | 276          | 279     |
| SPC 40 | DPS Maintenance        | 10/13/2011 16:50 | 10/14/2011 06:05 | 1               | 41 - 41 | 286          | 287     |
| DSS 63 | Heat Exchanger         | 10/18/2011 16:30 | 10/23/2011 16:20 | 5               | 42 - 42 | 291          | 296     |
| DSS 15 | Uplink/Transmitter Cal | 10/20/2011 10:00 | 10/21/2011 22:00 | 2               | 42 - 42 | 293          | 294     |
| SPC 40 | DPS Maintenance        | 10/24/2011 15:35 | 10/25/2011 03:30 | 0               | 43 - 43 | 297          | 298     |
| SPC 40 | DPS Maintenance        | 11/10/2011 17:45 | 11/11/2011 04:30 | 0               | 45 - 45 | 314          | 315     |



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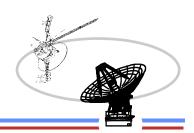
#### Antenna Downtime Status and Forecast

| The following | are d | lowntimes | for | 2011 |
|---------------|-------|-----------|-----|------|
|---------------|-------|-----------|-----|------|

☐ 34HEF Uplink and Transmitter Calibration downtime is requested on DSS-65 (completed) and DSS-15 for 36 hours in 2011 □ DSS-15 is scheduled for week 42 October 20 – 21, DOY 293/1000 – 294/2200 ☐ Canberra requested six 8 – 12 hour blocks of Complex Wide DSCC Power Substation (DPS) Maintenance Downtime for April – November □ Scheduled/completed for weeks listed ☐ August 25, week 34, DOY 237/0100 – 1300 completed □ October 13, week 41, DOY 286/1650 – 287/0605 □ October 24, week 43, DOY 299/1535 – 0330/0330 □ November 10, week 45, DOY 314/1745 – 315/0430 ☐ There is a possibility that downtimes may be affected by GRAIL if the launch slips into week 40 □ DSS-26 RF Pattern Testing is requested for July and September □ One block is scheduled in October, week 40, DOY 276/0000 – 279/0220 □ DSS-63 Heat Exchanger is scheduled for October, 2011 □ DSS-63 needs downtime due to a heat exchanger leak. This downtime is scheduled for

October 18 – 23, DOY 291/1630 – 296/1620, week 42

## Resource Allocation Planning Service



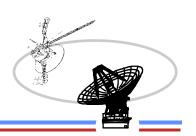
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Revised: August 31, 2011

|          |            | _             |               |                            | _     |            |         |         |          |      |                     |                    |                  |                  |                 |             |
|----------|------------|---------------|---------------|----------------------------|-------|------------|---------|---------|----------|------|---------------------|--------------------|------------------|------------------|-----------------|-------------|
|          | Januar     |               | February      | March                      |       | April      |         | ay      | Jun      |      | July                | August             | September        | October          | November        | December    |
| Weeks    | 1 2 3      | 4             | 5 6 7 8       | 9 10 11 12                 | 13 14 | 15 16 17   | 18 19 2 | 0 21 22 | 23 24 2  | 5 26 | 27 28 29 30         | 31 32 33 34 35     | 36 37 38 39      | 40 41 42 43      | 44 45 46 47 48  | 49 50 51 52 |
|          | CDAIL A    | /D I          | OI/OPR/TSF    | IST C/O 1 MS               | - ICN | /I IVISL   | FSW Up  | MSL T   |          |      | C/O 1 M<br>NG C/O 2 | MSL EDL            |                  |                  |                 |             |
|          | VEX Drad   |               |               | MSGR TCM/0                 | CM    |            |         | MSL I   | CIVI     |      | SL Approach         |                    |                  | L<br>MSL Surface | One             |             |
|          | VEX DIA    | j Pa          | 55            | DAWN V                     |       | Orbit      |         |         | _        |      | .WN Vesta D         |                    |                  | VISE Surface     | DAWN Forced     | Const       |
|          | GSSR /     | \et '         | 1991 VK       |                            |       | . A/B Scie | nce     | _       |          | JUA  | WWW Vesta L         |                    | L<br>AWN Ceres T | hruet            | I DAVVIN Forced | Coast       |
|          | 000107     | $\overline{}$ |               |                            | (EPL  |            | KEPL N  | AS KE   | EPL MS   | KE   | PL MS               | KEPL MS            |                  | PL MS            | GSSR Ast 200    | 7 PA8       |
|          |            |               | WIND TCM      | IKE I E MIO                |       | ND TCM     | IXE, E  | 10 10   | KEPL     |      |                     | SM KEPL MS         |                  | PL QR KE         |                 | 1           |
| 2012     | GS         |               |               | UNO D <mark>SM</mark> s DI |       |            | DTR PE  | 3       |          |      | Ms DDOR             |                    |                  |                  | Per Maint       |             |
| Key      | CHDF       |               |               | SR Mars                    |       | CHDR DO    | _       |         |          |      | CM CHDR D           |                    |                  | CM CHDR D        |                 |             |
| Project  |            |               |               | on Re-Entry                |       |            |         |         |          |      | t 2005 G021         |                    | Earth Eclipse    |                  | CHDR Le         | eonid       |
| Events   |            |               |               |                            |       |            |         |         |          |      | Relay               |                    |                  |                  |                 |             |
|          | SOHO K     | eyho          | ole           |                            | SC    | HO Keyh    |         |         |          |      |                     | SOHO Keyho         | le               |                  | S               | OHO Keyhole |
|          | SOHO       |               |               |                            |       | SOHO M     | NVR     | NHPC T  | CM SC    | HOI  | MNVR                | MRO MSL Rela       | y SOHO           | MNVR             | VEX Drag P      | ass         |
|          |            |               | ation Exit    |                            |       | _          |         | NHPC (  | Checkout |      | VEX Dra             | g Pass             | 1                | NHI              | C MNVR NH       |             |
|          | NHPC So    |               |               | ]                          |       |            |         |         | ion Exit |      | PC MNVR             |                    |                  |                  | NHPC Chec       |             |
|          | NHPC CI    |               |               | Ast 2000 ET                | 0     |            | GSS     |         | 1998 HE3 |      |                     |                    |                  | l                | VGR1 DTR PE     | 3           |
|          | NHP        |               |               |                            |       |            |         |         | TITAN    |      |                     | Ast 2002 AM3       | 1 V              | GR1 DTR PB       |                 |             |
|          | CAS TITA   |               | CAS           |                            |       | CAS EN     |         |         | CAS TIT  | AN   | C                   | AS TITAN           | GSSR Ast 1       |                  | GSSR Ast 417    |             |
| 14 B :   | CAS        |               |               | S ENCELAD                  |       |            | CAS EI  |         |          |      |                     |                    | CA               | STITAN C         | AS IIIAN CA     | AS TITAN    |
| Key Proj | ect Events | s Le          | gend: Le      | vel 1 Lev                  | 912   | Level      | 3       | All O   | thers    |      |                     | 1                  | 1                | ı                |                 | 1           |
|          |            |               |               |                            |       |            |         |         |          |      |                     |                    |                  |                  |                 |             |
|          |            |               |               |                            |       |            |         |         | D25      | Anto | nna Contro          | <br> ler Replaceme | <br>ent          |                  |                 |             |
| GDSCC    |            |               | TRY           | ı<br>Manifold Upgı         | ada   | Propose    | l<br>I  |         |          |      | rap Protecti        |                    |                  |                  |                 |             |
| ODJCC    |            |               | TICK I        | <br>                       |       | 26 Antenr  |         | oller R |          |      | <br>                |                    |                  |                  |                 |             |
|          |            |               |               |                            |       | ble Wrap   |         |         |          |      |                     |                    |                  |                  |                 |             |
|          |            |               |               | 70M Tu                     |       | p/Calibra  |         |         |          |      |                     |                    |                  |                  |                 |             |
|          |            |               |               |                            |       | eal Repla  |         |         | Ī        |      |                     |                    |                  |                  |                 |             |
|          |            |               |               |                            |       |            |         |         |          |      |                     |                    |                  |                  |                 |             |
|          |            |               |               |                            |       |            |         |         |          |      |                     |                    |                  |                  |                 |             |
|          |            |               |               |                            |       |            |         |         |          |      |                     |                    |                  |                  |                 |             |
| CDSCC    |            |               |               | Tune-up/Cali               |       |            | osed    |         |          |      |                     |                    |                  |                  |                 |             |
|          |            |               | DPS Pov       | ver Upgrade                | Prop  | oosed      |         |         |          |      |                     | D43 HB/            | A Upgrades 8     | Life Extens      | sion - Proposed | I           |
|          |            |               |               |                            |       |            |         |         |          |      |                     |                    |                  |                  |                 |             |
|          |            |               |               |                            |       |            |         |         |          |      |                     |                    |                  |                  |                 |             |
|          |            |               |               |                            |       |            |         |         |          |      |                     |                    |                  |                  |                 |             |
|          |            |               |               | 3 Grouting - I             |       |            |         |         |          |      |                     |                    |                  |                  |                 |             |
|          |            |               | D6            | 3 70M Tune-u               | p/Ca  | libration  | - NIB   |         |          |      |                     |                    |                  |                  |                 |             |
|          |            |               |               |                            |       |            |         |         |          |      |                     |                    | l                |                  |                 |             |
| MDSCC    |            |               |               |                            |       |            |         |         |          |      |                     | D54 AZ Track       |                  |                  |                 |             |
|          |            |               |               |                            |       |            |         |         |          |      |                     | D54 Antenna        | Controller F     | Replacemen       | t - Proposed    |             |
|          |            |               |               |                            |       |            |         |         |          |      |                     |                    |                  | Ca               | able Wrap Prote | ection-NIB  |
|          |            |               |               |                            |       |            |         |         |          |      |                     |                    |                  |                  |                 |             |
| 1111     | 4 0 0      |               | 5 0 7 5       |                            |       | 45 40 47   | 40 40 5 | 0 04 00 | 100 04 0 | 5 00 | 07 00 00 00         | 104 00 00 00 00    | 00 07 00 00      | 40 44 40 45      | 44 45 40 47 10  | 40 50 54 50 |
| Weeks    | 1 2 3      | 4             | 5   6   7   8 | 9   10   11   12           | 13 14 | 15 16 17   | 18 19 2 | 0 21 22 | 23 24 2  | 5 26 | 27 28 29 30         | 31 32 33 34 35     | 36 37 38 39      | 40 41 42 43      | 44 45 46 47 48  | 49 50 51 52 |

- 2012 -



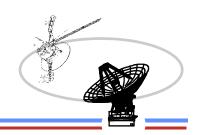


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|        |  | 2012             |                  |                    |         |              |         |
|--------|--|------------------|------------------|--------------------|---------|--------------|---------|
| Site   | Details  | Start            | End              | Duration<br>(Days) | Weeks   | Start<br>DOY | End DOY |
| DSS 43 | 70m Tune-up/Calibration - Proposed                 | 02/06/2012 19:00 | 02/12/2012 07:00 | 6                  | 06 - 06 | 37           | 43      |
| SPC 40 | DPS Maintenance - Proposed                         | 02/08/2012 20:00 | 02/09/2012 10:00 | 1                  | 06 - 06 | 39           | 40      |
| DSS 63 | 70m Tune-up/Calibration - NIB                      | 02/20/2012 06:00 | 03/11/2012 17:00 | 20                 | 10 - 10 | 51           | 71      |
| DSS 63 | Grouting - Proposed                                | 02/20/2012 06:00 | 03/11/2012 17:00 | 20                 | 08 - 10 | 51           | 71      |
| DSS 15 | TXR Manifold Upgrade-Proposed                      | 03/05/2012 14:00 | 03/10/2012 00:00 | 4                  | 10 - 10 | 65           | 70      |
| DSS 14 | 70m Tune-up/Calibration - Proposed                 | 03/12/2012 14:00 | 04/01/2012 01:00 | 19                 | 12 - 12 | 72           | 92      |
| DSS 14 | Plug Seal Replacement - NIB                        | 03/12/2012 14:00 | 04/01/2012 01:00 | 19                 | 12 - 12 | 72           | 92      |
| DSS 26 | Cable Wrap Protection - NIB                        | 04/02/2012 13:00 | 04/05/2012 05:00 | 3                  | 14 - 14 | 93           | 96      |
| DSS 26 | Antenna Controller Replacement                     | 04/02/2012 13:00 | 04/29/2012 01:00 | 26                 | 14 - 17 | 93           | 120     |
| DSS 25 | Cable Wrap Protection - NIB                        | 06/11/2012 00:00 | 06/14/2012 00:00 | 3                  | 24 - 24 | 163          | 166     |
| DSS 25 | Antenna Controller Replacement                     | 06/11/2012 00:00 | 07/15/2012 00:00 | 34                 | 24 - 28 | 163          | 197     |
| DSS 54 | AZ Track Replacement - Proposed                    | 09/10/2012 00:00 | 10/28/2012 00:00 | 48                 | 37 - 43 | 254          | 302     |
| DSS 43 | HBA Upgrades and Life Extension Phase 1 - Proposed | 10/15/2012 00:00 | 12/02/2012 00:00 | 48                 | 42 - 48 | 289          | 337     |
| DSS 54 | Cable Wrap Protection - NIB                        | 10/22/2012 00:00 | 10/25/2012 00:00 | 3                  | 43 - 43 | 296          | 299     |
| DSS 54 | Antenna Controller Replacement - Proposed          | 10/22/2012 00:00 | 11/25/2012 00:00 | 34                 | 43 - 47 | 296          | 330     |



#### Resource Allocation Planning Service

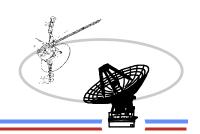


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#### Antenna Downtime Status and Forecast

| The following are downtimes for 2012 – 2014   |                         |
|---|-------------------------|
| <ul> <li>DSS-15 Downtime for TXR Manifold Upgrade requested</li> <li>One week of downtime is requested for January – May time frame,</li> <li>Proposed for March 5 – 9, week 10, 1400 – 0000, DOY 65 – 69</li> </ul>  |                         |
| <ul> <li>BWG Antenna Controller Replacement for 2012 – 2013</li> <li>DSS-26 is Scheduled for April 2 – 29, 2012, weeks 14 – 17, DOY 093/1300 –</li> <li>DSS-25 is Scheduled for June 11 – July 15, 2012, weeks 24 – 28, DOY 163/0000 – 197/0000</li> </ul>  | 120/0100                |
| <ul> <li>DSS-54 is proposed for October 22 – November 25, 2012, weeks 43 – 47,<br/>DOY 296/0000 – 330/0000</li> </ul>   |                         |
| <ul> <li>DSS-55 is proposed for January 14 – February 17, 2013, weeks 03 – 07,</li> <li>DOY 014/0000 – 048/0000</li> </ul>  |                         |
| Note: Cable Wrap Protection for each BWG ACR requires 3 days and will be NIB  |                         |
| <ul> <li>□ DSS-63 downtime for Grouting is requested once per year</li> <li>□ Proposed for February 20 – March 11, 2012, weeks 08 – 10, DOY 051/0600 -</li> <li>□ Tune-up/Calibration is requested NIB to grouting</li> <li>□ Proposed for September 2 – 17, 2013, weeks 36 – 38, DOY 245/0600 – 260/Note: Stand alone Grouting requires 15 days</li> </ul>   |                         |
| <ul> <li>DSS-43 downtime for Tune-up/Calibration is requested for 2012</li> <li>Tune-up/Calibration is proposed for February 6 – 12, week 06, DOY 037/190</li> <li>An additional SPC-40 DPS 8-12 hour power task is proposed for week 06, DOY 039/2000 – 040/1000</li> <li>Initially requested for December 2011, but due to contention/high level</li> </ul> |                         |
| proposed for February 2012  | Downtime September 7, 2 |





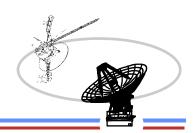
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#### Antenna Downtime Status and Forecast

The following are downtimes for 2012 – 2014 (continued)

| □ DSS-14 downtime for Tune-up/Calibration and Plug Seal Replacement is requested for 2012  |
|--|
| <ul> <li>☐ Tune-up/Calibration and Plug Seal Replacement is proposed for March 12 — April 1 weeks 11 — 13, DOY 072/1400 — 092/0000</li> <li>☐ 20 days of downtime is requested to complete the task</li> </ul>   |
| <ul> <li>□ AZ Track Replacement is requested for DSS-54, 24 and 26 beginning in the fall of 2012. The following sequence is proposed</li> <li>□ DSS-54 is proposed for September 10 – October 28, 2012, weeks 37 – 43</li> <li>□ DSS-24 is proposed for April 22 – June 30, 2013, weeks 17 – 26</li> <li>□ DSS-26 is proposed for March 31 – June 8, 2014, weeks 14 – 23</li> <li>□ 80 kW Facility Preparation will be scheduled NIB March 31 – May 18, weeks 14 – 20</li> </ul> |
| <ul> <li>□ DSS-43 HBA Upgrade downtime is proposed for 2012 – 2013</li> <li>□ Details being worked internally</li> <li>□ Phase one for downtime phase one is proposed for late 2012, possibly week 42 – 48</li> <li>□ Phase two for extended downtime is proposed for 27 weeks in 2013</li> <li>□ ZDD will be scheduled prior to return to service</li> <li>NOTE: This downtime is currently under review</li> </ul>   |
| □ DSS-63 HBA Upgrade downtime is proposed for 2014 □ Proposed for March 10 – October 5, weeks 11– 40 □ ZDD will be scheduled prior to return to service  |

## Resource Allocation Planning Service

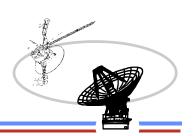


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|          |    | Ja      | nuai        | v    | F        | ebru     | ary    | M        | larch        |          | April               |             | May       |      | June          |          | July            |            | August                     | Sen     | tember           | October                        | November            | December       |
|----------|----|---------|-------------|------|----------|----------|--------|----------|--------------|----------|---------------------|-------------|-----------|------|---------------|----------|-----------------|------------|----------------------------|---------|------------------|--------------------------------|---------------------|----------------|
| Weeks    | 1  |         | 3           |      |          |          |        |          | 1 12         | 13       | 14 15 16 17         | 18          | 19 20 21  | 22   | 23 24 25 26   | 27       | 28 29 30        | 31 3       |                            | 36 3    | 7 38 39          |                                | 45 46 47 48         |                |
|          |    | •       |             |      |          |          |        |          |              | T        |                     | LA          | DEE Lau   | nch  |               |          |                 |            |                            |         |                  |                                |                     | N Launch       |
|          |    |         |             |      |          |          |        |          |              |          |                     |             |           |      |               |          |                 |            |                            |         |                  |                                |                     | <b>La</b> unch |
|          | L  |         |             |      | L        |          |        | oxdot    |              | $\perp$  |                     |             |           |      |               | 上        |                 |            |                            |         |                  |                                | MAVEN TO            | CM             |
|          | L  |         |             |      |          |          |        |          |              |          |                     |             |           |      | DAWN Ceres    | s Th     | rst PB/TV       | /          |                            |         |                  |                                |                     |                |
|          | 10 | W 10    | TO.         |      |          |          |        | DAV      | <u>VN</u> Fo |          | d Coast             |             |           |      |               | 101      | ND TOM          |            |                            |         | I A (II A II A   |                                | es Coasting         |                |
| 2013     | V١ |         | TCN<br>DR I |      | [<br>C   | ront     |        |          |              | Н        | WIND TCM<br>CHDR Da | l<br>orle C | Surront   |      |               | VV       | ND TCM          | l<br>rlc C | urront                     |         | WIND T           | CHDR Dark                      | N Forced Coa        | St             |
| Key      |    | U       | IDK I       | Jaik | Cui<br>I | CHE      | D F    | arth F   | clips        |          | CHUK D              | irk C       | unent     |      |               |          |                 |            | Earth Eclips               |         |                  | CHUR Dalk                      | CHDR Le             | onid           |
| Project  | S  | оно     | ) Kev       | hole |          | OFF      | //\ Lc |          | .ciipa       | 1        |                     |             |           |      |               |          |                 | HUIN       | JUNO TCM                   |         |                  | JUNO TCM                       | OHDIX Le            | l              |
| Events   | ř  |         | , , , ,     |      |          |          |        |          |              |          |                     |             |           |      | JUNO ME FI    | ush      | JU              | INO        | EFB DDOR                   |         |                  | JUNO EFB                       |                     |                |
|          |    |         |             |      |          |          |        |          |              |          |                     |             |           |      | MRO M         |          |                 |            |                            |         |                  |                                |                     |                |
|          |    |         |             |      |          |          |        |          |              |          |                     |             |           |      | MSL Su        |          | e Ops           |            |                            |         |                  |                                |                     |                |
|          | N  |         | Sola        |      |          |          | n      |          |              |          |                     |             |           | NH   | PC Checkou    | t        |                 |            |                            |         |                  |                                | NHPC Ch             | eckout         |
|          |    |         | IPC (       |      |          | t        |        |          |              |          |                     |             |           |      |               |          |                 |            |                            |         | N                | HPC Beacon                     |                     |                |
|          | _  | _       | PC I        |      |          |          |        |          |              |          |                     |             |           |      |               | <u> </u> |                 |            | Maneuver                   |         |                  | ]                              | NHPC MI             |                |
|          |    |         | R Ast       |      |          |          |        |          |              |          |                     |             | G         |      | Ast 2002 O    |          |                 |            | SR Ast 2005<br>SR Ast 1999 |         | 4 GSSI           | Ast 1998 FW4<br>SSR Ast 2002 Q | NHPC Solai          | Conjunction    |
|          | G  | i O O F | ASI         | APC  | 1513<br> | •        |        | CAS      | RHE          | , F      | livby               |             |           | GO   |               |          | ⊏∠<br>「AN Flyby |            |                            |         | 1998 M           |                                | AZZ <u>IGOOR</u> AS | 1 2001 AV43    |
|          |    |         |             |      |          | CAS      | S TITA | AN FI    | vhv          |          | CAS TITAN I         | l<br>Flyb   | v C       | AS T | TTAN Flyby    | Ϊ'''     | CAS TITA        | M F        | lvhv                       | l Asi   | AS TIT           | AN Flyby                       | CAS TITAL           | l Flyhy        |
|          |    |         |             |      | $\vdash$ | 0/10     | 7 1117 |          | уюу          | 7        | O/IO III/IIV        | lyio        | y  0/     |      | 117 dv 1 lyby | $\vdash$ | 0/10/111/       | 441        | iyoy                       |         | <i>/</i> (0 111/ | I                              | 0/10/11/14          | VI Iyoy        |
|          |    |         |             |      |          |          |        |          |              |          | D2                  | 4 A         | Z Track I | Rep  | lacement - l  | Pro      | posed           |            |                            |         |                  |                                |                     |                |
|          |    |         |             |      |          |          |        |          |              |          |                     |             |           |      |               | 1        | •               |            |                            |         |                  |                                |                     |                |
| GDSCC    |    |         |             |      |          |          |        |          |              |          |                     |             |           |      |               |          |                 |            |                            |         |                  |                                |                     |                |
|          |    |         |             |      |          |          |        |          |              |          |                     |             |           |      |               |          |                 |            |                            |         |                  |                                |                     |                |
|          |    |         |             |      |          |          |        |          |              |          |                     |             |           |      |               |          |                 |            |                            |         |                  |                                |                     |                |
|          |    |         |             |      |          |          |        |          |              |          |                     |             |           |      |               |          |                 |            |                            |         |                  |                                |                     |                |
|          | H  |         |             |      | ├        |          |        | $\vdash$ |              | $\dashv$ |                     |             |           |      |               | ⊢        |                 |            |                            |         |                  |                                |                     |                |
|          |    |         |             |      |          |          |        |          |              |          |                     |             |           |      |               |          |                 |            |                            |         |                  |                                |                     |                |
|          |    |         |             |      |          |          |        |          |              |          |                     |             |           |      |               |          |                 |            |                            |         | D35              | Modkit Invento                 | rv/Installatio      | n/Checkout     |
| CDSCC    |    |         |             |      | _        | - [      | D43 H  | IBA I    | Jpgra        | de       | s & Life Ext        | ensi        | on - Pro  | pos  | ed            | _        |                 |            |                            |         | 200              | D35 Subsys                     | tem Accepta         | nce Testing    |
|          |    |         |             |      |          |          |        |          |              | П        |                     |             |           | •    |               | Π        |                 |            |                            |         |                  |                                | ms Integrata        |                |
|          |    |         |             |      |          |          |        |          |              |          |                     |             |           |      |               |          |                 |            |                            |         |                  |                                |                     |                |
|          |    |         |             |      |          |          |        |          |              |          |                     |             |           |      |               |          |                 |            |                            |         |                  |                                |                     |                |
|          | -  |         |             |      | _        |          |        | —        |              | 4        |                     |             |           |      |               | _        |                 |            |                            |         |                  |                                |                     |                |
|          |    |         |             |      |          |          |        |          |              |          |                     |             |           |      |               |          |                 |            |                            |         |                  |                                |                     |                |
|          |    |         |             |      |          |          |        |          |              |          |                     |             |           |      |               |          |                 |            |                            |         |                  |                                |                     |                |
| MDSCC    |    |         | DSS         | Ante | L nn     | <u> </u> | ntrol  | <br>  or | onla         |          | nent - Propo        |             |           |      |               |          |                 |            |                            |         |                  |                                |                     |                |
| WIDSC.C. |    |         |             |      |          |          |        |          | on - N       |          | ieni - Propi        | sec         |           |      |               |          |                 |            |                            | D63     | GROUT            | ।<br>「ING - Proposed           |                     |                |
|          |    |         | <u> </u>    | Oun  | Ĭ.       |          |        |          |              |          |                     |             |           |      |               |          |                 |            |                            | 200     | OILO O           |                                |                     |                |
|          |    |         |             |      |          |          |        | 1        |              |          |                     |             |           |      |               |          |                 |            |                            |         |                  |                                |                     |                |
|          | L  |         |             |      | L        |          |        | L        |              |          |                     | L           |           |      |               | L        |                 | L          |                            | <u></u> |                  |                                |                     |                |
| Weeks    | 1  |         |             | 4 5  | 6        | 7        | 8 9    | 10 1     | 1 12         | 13       | 14 15 16 17         | 18          | 19 20 21  | 22   | 23 24 25 26   | 27       | 28 29 30        | 31         | 32 33 34 35                | 36 3    | 7 38 39          | 40 41 42 43 44                 | 45 46 47 48         | 49 50 51 52    |
| Revised: | A  | ugus    | t 31, 2     | 011  |          |          |        |          |              |          |                     |             |           |      |               |          |                 |            |                            |         |                  |                                |                     |                |

- 2013 -





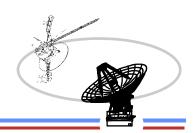
**Jet Propulsion Laboratory California Institute of Technology** 

|        |  | 2013             |                  |                 |         |              |         |
|--------|--|------------------|------------------|-----------------|---------|--------------|---------|
| Site   | Details  | Start            | End              | Duration (Days) | Weeks   | Start<br>DOY | End DOY |
| DSS 43 | HBA Upgrades and Life Extension Phase 2 - Proposed | 01/07/2013 00:00 | 08/11/2013 00:00 | 216             | 02 - 32 | 7            | 223     |
| DSS 55 | Cable Wrap Protection - NIB                        | 01/14/2013 00:00 | 01/17/2013 00:00 | 3               | 03 - 03 | 14           | 17      |
| DSS 55 | Antenna Controller Replacement - Proposed          | 01/14/2013 00:00 | 02/17/2013 00:00 | 34              | 06 - 07 | 14           | 48      |
| DSS 24 | AZ Track Replacement - Proposed                    | 04/22/2013 00:00 | 06/30/2013 00:00 | 69              | 17 - 26 | 112          | 181     |
| DSS 63 | Grouting - Proposed                                | 09/02/2013 00:00 | 09/17/2013 00:00 | 15              | 36 - 38 | 245          | 260     |

- 2014 -

## Interplanetary Network Directorate (IND) Deep Space Network (DSN)

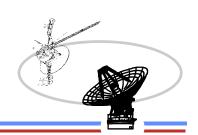
## Resource Allocation Planning Service



**Jet Propulsion Laboratory California Institute of Technology** 

|                | January                         | February    | March        | April         | May                 | June         | July            | August       | September          | October        | November                 | December     |
|----------------|---------------------------------|-------------|--------------|---------------|---------------------|--------------|-----------------|--------------|--------------------|----------------|--------------------------|--------------|
| Weeks          | 1 2 3 4 5                       | 6 7 8 9     | 10 11 12 13  | 14 15 16 17   | 18 19 20 21 22      | 23 24 25 26  | 27 28 29 30 31  |              | 36 37 <b>38</b> 39 |                | 45 46 47 48              | 49 50 51 52  |
|                |                                 |             | ANCEN TON    |               |                     |              | MAVE            | N Approach   | NI TONA DE ANTONIO | MMS Lai        | unch & Comm              |              |
|                |                                 | IV          | AVEN TCM     | libernation W | ako un              |              |                 | net Ren Mnvi | N TCM MAVE         | Comet M        | AVEN Deep D<br>MAVEN Dee | ip<br>op Din |
|                | CHDR Dark                       | Current     | RUSET        | CHDR          | R Dark Current      | 1            | CHDR Dark       |              | RUSE               |                | E Lander                 | sh nihi      |
|                | CH                              | IDR Earth E | l<br>clipse  | 011011        |                     |              | CHDR Earth      |              | AWN Forced         |                |                          | SE Comet     |
|                |                                 |             | DAWN Force   | ed Coast      |                     |              |                 | DAV          | VN Ceres Coa       | asting         | DAWN Cer                 | es Approach  |
| 2014           |                                 |             |              |               | T                   | DAWN Cere    | s Thrst PB/TV   |              | ı                  | ı              |                          |              |
| Key<br>Project | DAWN Ceres C                    | oosting.    |              |               |                     |              |                 |              | -                  |                |                          |              |
| Events         | DAVIN Celes C                   | vasting     |              | MRO           | MSL Relay           |              |                 |              | 1                  |                |                          |              |
|                |                                 | MS          | L Surface Op |               | ,                   |              |                 |              |                    |                |                          |              |
|                | NHPC Check                      |             |              |               |                     |              |                 |              | NHPC Ch            | eckout         |                          |              |
|                | NHPC Solar Co                   | njunction   |              | JUNO TCM      | D M-i-i             | JU           | NO ME Flush     |              |                    |                |                          |              |
|                | INHPC MINVE                     | ₹<br>I      |              | JUNO          | Per Maint           |              |                 |              |                    |                |                          |              |
|                |                                 |             |              |               |                     | GSSR Ast 2   | 002SR41         |              |                    |                |                          |              |
|                |                                 |             | GSSR As      | t 2000 RS11   |                     | Ast P/2004   | CB              |              | SR Ast 2002        |                | Ast HATHO                | ί.           |
|                |                                 | S TITAN FI  |              | CAS TITA      | AN Flyby            | CAST         | IITAN Flyby     |              | TITAN Flyby        | CAS            | TITAN Flyby              | _            |
|                | CAS TITAN Flyk                  | by<br>I     | CAS TITAN I  | Flyby         | CAS TITA            | N Flyby      | CAS TITA        | N Flyby      | C.A                | S TITAN Flyby  | CAS TITAN                | Flyby        |
|                |                                 |             |              |               |                     |              |                 |              |                    |                |                          |              |
|                |                                 |             |              |               |                     |              |                 |              |                    |                |                          |              |
| <b>GDSCC</b>   |                                 |             |              |               |                     |              |                 |              |                    | D26 80kW arriv |                          |              |
|                |                                 |             |              | D26 AZ Trac   | ck Replacemen       | t - Proposed |                 |              |                    |                | D2 <u>6 8</u> 0 kV       | N Onsite     |
|                |                                 |             |              | D26 80kW F    | acility Prep - N    | IB<br>I      |                 |              |                    |                |                          |              |
|                |                                 |             |              |               |                     |              |                 |              |                    |                |                          |              |
|                |                                 |             |              |               |                     |              |                 |              |                    |                |                          |              |
|                |                                 |             |              |               |                     |              |                 |              |                    |                |                          |              |
| 00000          | D35 Modkit Inv                  |             |              | ckout         |                     |              |                 |              |                    |                |                          |              |
| CDSCC          | D35 Subsystem<br>D35 Systems Ir |             |              |               |                     | <u> </u>     |                 |              |                    | D25            | <br>Operational          |              |
|                | D33 Systems II                  | legration   | esung        |               |                     | D35 Systen   | Performance T   | L<br>estina  |                    |                | Operational              |              |
|                |                                 |             |              |               |                     |              |                 |              |                    |                |                          |              |
|                |                                 |             |              |               |                     |              |                 |              |                    |                |                          |              |
|                |                                 |             |              |               |                     |              |                 |              |                    |                |                          |              |
|                |                                 |             |              |               |                     |              |                 |              |                    |                |                          |              |
| MDSCC          |                                 |             |              | D6            | L<br>53 HBA Upgrade | s & Life Ext | ension - Propos | ed           |                    |                |                          |              |
|                |                                 |             |              |               |                     |              |                 |              |                    |                |                          |              |
|                |                                 |             |              |               |                     |              |                 |              |                    |                |                          |              |
|                |                                 |             |              |               |                     |              |                 |              |                    |                |                          |              |
| Weeks          | 1 2 3 4 5                       | 6 7 8 9     | 10 11 12 13  | 14 15 16 17   | 18 19 20 21 22      | 23 24 25 26  | 27 28 29 30 31  | 32 33 34 35  | 36 37 38 39        | 40 41 42 43 44 | 45 46 47 48              | 49 50 51 52  |
|                | August 31, 2011                 | -   -   -   |              |               |                     |              |                 |              |                    |                |                          |              |





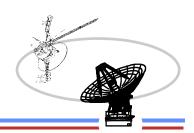
**Jet Propulsion Laboratory California Institute of Technology** 

|        | 2014                                       |                  |                  |                 |         |              |         |  |  |  |  |  |  |  |  |
|--------|--|------------------|------------------|-----------------|---------|--------------|---------|--|--|--|--|--|--|--|--|
| Site   | Details                                    | Start            | End              | Duration (Days) | Weeks   | Start<br>DOY | End DOY |  |  |  |  |  |  |  |  |
| DSS 63 | HBA Upgrades and Life Extension - Proposed | 03/10/2014 00:00 | 10/05/2014 00:00 | 209             | 11 - 40 | 69           | 278     |  |  |  |  |  |  |  |  |
| DSS 26 | 80 kW Facility Prep - NIB                  | 03/31/2014 00:00 | 05/18/2014 00:00 | 48              | 14 - 20 | 90           | 138     |  |  |  |  |  |  |  |  |
| DSS 26 | AZ Track Replacement - Proposed            | 03/31/2014 00:00 | 06/08/2014 00:00 | 69              | 14 - 23 | 90           | 159     |  |  |  |  |  |  |  |  |

- 2015 -

#### Interplanetary Network Directorate (IND) Deep Space Network (DSN)

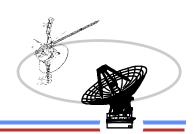
## Resource Allocation Planning Service



**Jet Propulsion Laboratory California Institute of Technology** 

|         | lancer        |       | Fahm:-    |          | Marah                | Λ            | -21      | Marri         |          | _      | l       |       | J. J.                    |              | Δ        |       | Cantagal |      | Ost-1        |         | Nevember                    | December                   |
|---------|---------------|-------|-----------|----------|----------------------|--------------|----------|---------------|----------|--------|---------|-------|--------------------------|--------------|----------|-------|----------|------|--------------|---------|-----------------------------|----------------------------|
| W1      | Januar        | У     | Februa    |          | March<br>10 11 12 13 | Apı          | 111      | May           |          | 20 0   | June    |       | Jul                      | ly<br>lanlar | Augu     | IST   | Septemb  | per  | Octob        | oer     | November                    | December<br>49 50 51 52 53 |
| Weeks   | MMS Com       |       |           | 9        | 10 11 12 13          | 14   15   16 |          | PC MNVF       |          |        |         |       | 27   28   29<br>to Encou |              | 32 33 3  | 34 35 | 36 37 38 | 39   | 40 41 42     |         | 45 46 47 48<br>IPC Checkout |                            |
|         | IVIIVIS COMI  | nissi | oning     | N        | IHPC Pluto A         | pproach      | INFI     | VIVINVE       | <b>\</b> | I I    | NITTE F | Tu    | to Encou                 | unter        |          |       | NHDC     | Dlut | to Science   |         | IPC Checkout                |                            |
|         | NHPC Sola     | r Cor | niunction | IN       | II IFC FIGIO A       | фричаст      |          | NIH           | DC I     | MNV    | D N     | IHE   | PC MNV                   | D            | Т        |       | INITECT  | Flui | o Science    | еги     | NHDC S                      | olar Conjunction           |
|         | INITE SUIA    | 001   | ijunction |          |                      |              |          | INI           |          |        |         |       | eep Dip                  | K            |          |       |          |      |              |         | MIFCS                       | olar Conjunction           |
|         |               |       |           | M        | AVEN Deep I          | Dip M        | AVENI    | l<br>Deep Dip |          | MA     | /EN Co  | nnii  | unction                  |              |          |       |          |      |              |         |                             |                            |
|         |               |       |           | 140      | WEIT BOOK            | - P          |          | Joop Dip      |          | 1417   |         |       | E Comet                  |              |          |       |          |      |              |         |                             |                            |
| 2015    |               |       |           |          |                      |              |          |               |          |        |         |       | me Miss                  |              |          |       |          |      |              |         |                             |                            |
| Key     |               |       |           |          | [                    | DAWN Ce      | eres Ork | oit           |          |        |         |       |                          |              |          |       |          |      |              |         |                             |                            |
| Project | DAWN Cer      | es A  | pproach   | П        |                      |              |          |               |          |        |         | Т     |                          |              | J        | UNO   | JOI DDOI | R    |              |         | JUNO                        | JOI DDOR                   |
| Events  |               | _     |           |          |                      | JL           | NO Pe    | r Maint       | JUI      | NO J   | OI DDG  | ρŔ    | JL                       | JNO ME       | E Flush  |       |          |      |              | JUN     | O Early Appro               |                            |
|         |               |       |           |          |                      | _            | _        |               |          | ]      |         |       | _                        |              |          |       |          |      |              |         |                             |                            |
|         |               |       |           |          |                      |              |          |               |          |        |         |       |                          |              |          |       |          |      |              |         |                             |                            |
|         |               |       |           |          |                      |              |          |               |          |        |         |       |                          |              |          |       |          |      |              |         |                             |                            |
|         |               |       |           |          |                      |              |          |               |          |        |         |       |                          |              |          |       |          |      |              |         |                             |                            |
|         |               |       |           |          |                      |              |          |               |          |        |         |       |                          |              | _        |       |          |      |              |         | GSSR /                      | Ast 2003 SD220             |
|         |               |       |           |          |                      |              |          |               |          | ١      |         |       |                          |              |          |       | Ast 2003 |      |              |         | SR Ast 1998                 |                            |
|         |               | GS    | SR Ast 2  | 2004     | 4 BL86               |              |          | GSSF          |          |        |         |       | GSSR A                   |              |          |       |          |      | US Flyby     |         | CAS TITA                    |                            |
|         | CAS TIT       | AN F  | lyby      |          | CAS I                | ITAN Fly     | by       | CAS           | DIO      | NE F   | -lyby   |       | GSS                      | R Ast 1      | 1994 AVV | 1 C   | AS TITAN | Fly  | /by          | 1 0     | S ENCELAD                   | US Flyby                   |
|         |               |       | CAS       | 1117     | AN Flyby             | CAS          | TITAN F  | -iyby         |          | CA     | SIIIA   | N I   | Flyby C                  | AS DIC       | INE FIYE | )y    | CAS      | Ш    | AN Flyby     | C/      | AS ENCELAD                  | US Flyby                   |
|         |               |       |           |          |                      |              |          |               |          |        |         |       |                          |              |          |       |          |      |              |         |                             |                            |
|         |               |       |           |          | D26 Instal           | LOUPIN       |          |               |          |        |         |       |                          |              |          |       |          |      |              |         |                             |                            |
| GDSCC   |               |       |           | П        | DZ0 IIIStai          | IOUKVV       |          |               |          | П      |         |       | D26 1                    | Test 80      | kW       |       | -        |      |              |         |                             |                            |
| ODSCC   |               |       |           |          |                      |              |          |               |          |        |         | Т     | DZU                      | 1631 00      |          |       |          | 6.8  | ı<br>OkW DDR | •       |                             |                            |
|         |               |       |           |          |                      |              |          |               |          |        |         |       |                          |              |          |       | D2       |      |              | •       |                             |                            |
|         |               |       |           |          |                      | D25 AZ       | Track R  | Replacer      | nent     | t - Pr | opose   | d     |                          |              |          |       |          |      |              |         |                             |                            |
|         |               |       |           |          |                      |              |          |               |          |        |         |       |                          |              |          |       |          |      |              |         |                             |                            |
|         |               |       |           |          |                      |              |          |               |          |        |         | Т     |                          |              |          |       |          |      |              |         |                             |                            |
|         |               |       |           |          |                      |              |          |               |          |        |         |       |                          |              |          |       |          | D3   | 5 80kW A     | Arrives |                             |                            |
|         |               |       |           |          |                      |              |          |               |          |        |         |       |                          |              |          |       |          |      |              |         | D35 80kW                    | Onsilte                    |
| CDSCC   |               |       |           |          |                      |              |          |               |          |        |         |       |                          |              |          |       |          |      |              |         |                             |                            |
|         |               |       |           |          |                      |              |          |               |          |        |         |       |                          |              |          |       |          |      |              |         |                             |                            |
|         |               |       |           |          |                      |              |          |               |          |        |         |       |                          |              |          |       |          |      |              |         |                             |                            |
|         |               |       |           |          |                      |              |          |               |          |        |         |       |                          |              |          |       |          |      |              |         |                             |                            |
|         |               |       |           | $\dashv$ |                      |              |          |               |          | _      |         | +     |                          |              |          |       |          |      |              |         |                             |                            |
|         |               |       |           |          |                      |              |          |               |          |        |         |       |                          |              |          |       |          |      |              |         |                             |                            |
|         |               |       |           |          |                      |              |          |               |          |        |         |       |                          |              |          |       |          |      |              |         |                             |                            |
| MDSCC   |               |       |           |          |                      |              |          |               |          |        |         |       |                          |              |          |       |          |      |              |         |                             |                            |
| MDSCC   |               |       |           |          |                      |              |          |               |          |        |         |       |                          |              |          |       |          |      |              |         |                             |                            |
|         |               |       |           |          |                      |              |          |               |          |        |         |       |                          |              |          |       |          |      |              |         |                             |                            |
|         |               |       |           |          |                      |              |          |               |          |        |         |       |                          |              |          |       |          |      |              |         |                             |                            |
|         |               |       |           |          |                      |              |          |               |          |        |         |       |                          |              |          |       |          |      |              |         |                             |                            |
| Weeks   | 1 2 3 4       | 5     | 6 7 8     | 9        | 10 11 12 13          | 14 15 16     | 17 18    | 19 20 21      | 1 22     | 23 2   | 4 25 2  | 6 :   | 27 28 29                 | 30 31        | 32 33 3  | 34 35 | 36 37 38 | 39   | 40 41 42     | 43 44   | 45 46 47 48                 | 49 50 51 52 53             |
|         | August 31, 20 |       | 21110     |          | .5    12  15         |              |          | .0 20 2       |          | 20 2   |         | -   4 |                          | 00 01        | 122 00 0 |       | 20 01 00 |      | // //2       | .5 44   |                             | 55   51   52   55          |

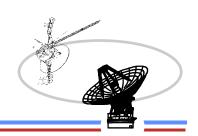




**Jet Propulsion Laboratory California Institute of Technology** 

|        |                                 | 2015             |                  |                 |         |              |         |
|--------|---------------------------------|------------------|------------------|-----------------|---------|--------------|---------|
| Site   | Details                         | Start            | End              | Duration (Days) | Weeks   | Start<br>DOY | End DOY |
| DSS 25 | AZ Track Replacement - Proposed | 03/31/2015 00:00 | 06/07/2015 00:00 | 68              | 14 - 23 | 90           | 158     |





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#### Antenna Downtime Status and Forecast

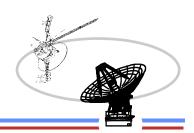
The following are downtimes for 2015 - 2016

- ☐ AZ Track Replacement is requested for DSS-25 and 55
  - $\square$  DSS-25 is proposed for March 31 June 7, 2015, weeks 14 23
  - □ DSS-55 is proposed for February 1 April 10, 2016, weeks 05 14
    - □ 80 kW Facility Preparation is scheduled NIB for February 1 March 20, weeks 05 11

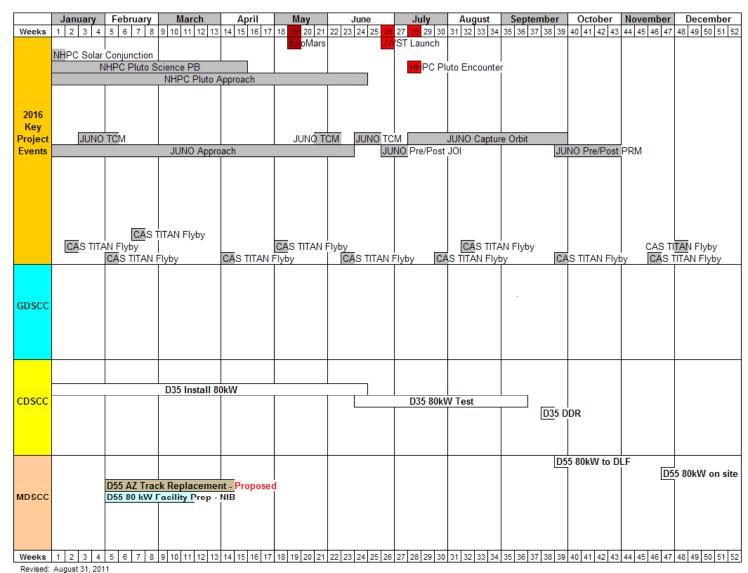
- 2016 -

#### Interplanetary Network Directorate (IND) Deep Space Network (DSN)

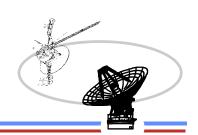
#### Resource Allocation Planning Service



**Jet Propulsion Laboratory** California Institute of Technology







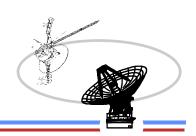
**Jet Propulsion Laboratory California Institute of Technology** 

|        |                                 | 2016             |                  |                 |         |              |         |
|--------|---------------------------------|------------------|------------------|-----------------|---------|--------------|---------|
| Site   | Details                         | Start            | End              | Duration (Days) | Weeks   | Start<br>DOY | End DOY |
| DSS 55 | 80 kW Facility Prep - NIB       | 02/01/2016 00:00 | 03/20/2016 00:00 | 48              | 05 - 11 | 32           | 80      |
| DSS 55 | AZ Track Replacement - Proposed | 02/01/2016 00:00 | 04/10/2016 00:00 | 69              | 05 - 14 | 32           | 101     |

- 2017 -

## Interplanetary Network Directorate (IND) Deep Space Network (DSN)

## Resource Allocation Planning Service

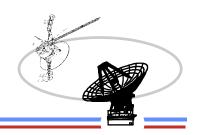


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|                                  | , | Janu | ıary | F | ebru | iary |      | Marc | :h    |      | April   |      | May      |    |       | June   |       | ,    | July   |      | Au    | igust   |      | Sept  | embe | er   | Octobe             | r  | Nov   | embe  | er   | Decem   | ber  |
|----------------------------------|---|------|------|---|------|------|------|------|-------|------|---------|------|----------|----|-------|--------|-------|------|--------|------|-------|---------|------|-------|------|------|--------------------|----|-------|-------|------|---------|------|
| Weeks                            | 1 | 2    | 3 4  | 5 | 6    | 7 8  | 9 10 | 0 11 | 12 13 | 14 1 | 5 16 17 | 7 18 | 19 20    | 21 | 22 23 | 3 24 2 | 25 26 | 27 2 | 8 29 3 | 30 3 | 31 32 | 33 34 3 | 35 3 | 36 37 | 38 3 | 39 4 | Octobe<br>40 41 42 | 43 | 44 45 | 46 47 | 48   | 49 50 5 | 1 52 |
| 2017<br>Key<br>Project<br>Events |   |      |      |   |      |      |      |      |       |      |         |      | AN Flyi  |    |       |        |       |      |        |      |       |         |      |       |      |      | JUNO Dec           |    |       |       |      |         |      |
| GDSCC                            |   |      |      |   |      |      |      |      |       |      | JUAS    |      | -14 T Ty | Бу |       |        |       |      |        |      |       |         | -    |       |      |      |                    |    |       |       |      |         |      |
| CDSCC                            |   |      |      |   |      |      |      |      |       |      |         |      |          |    |       |        |       |      |        |      |       |         |      |       |      |      |                    |    |       |       |      |         |      |
| MDSCC                            | 1 | 121  | 3 4  | 5 | 6    | 7 8  |      |      | Insta |      |         | 7 18 | 19 20    | 21 | 22 21 | 3 24 3 | 25 26 |      | 955 Te |      |       | 33 34 1 | 35 2 | 36 37 |      |      | 5 DDR              | 43 | 44 45 | 46 47 | 7 48 | 49 50 5 | 1 52 |

Revised: August 31, 2011

#### Resource Allocation Planning Service



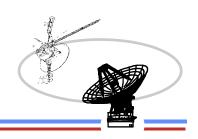
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#### Future assets new/upgrades

| Ч | DS3  | 5-35 Installation and Operational 2013 – 2014  |
|---|------|--|
|   |      | Modkit Installation October 1, 2013 – March 14, 2014 weeks 40 – 11                   |
|   |      | Acceptance Testing November 22, 2013 – April 4, 2014, weeks 47 – 14                  |
|   |      | System Integration Testing December 17, 2013 – June 2, 2014 weeks 51 – 23            |
|   |      | Operations Systems Performance Testing June 2, 2014 – August 15, 2014, weeks 23 – 33 |
|   |      | Operational September 26, 2014   |
|   | DSS  | S-26 80kW Installation 2014 – 2015   |
|   |      | 80kW arrive at DLF October, 2014, week 40  |
|   |      | 80kW arrive on-site November, 2014, week 47  |
|   |      | 80kW install January – June, 2015, weeks 02 – 25                                     |
|   |      | 80 kW test June – September, 2015, weeks 24 – 36                                     |
|   |      | DDR September, 2015, week 38   |
|   | DSS  | S-35 80kW Installation 2016 – A placeholder has been set awaiting dates              |
|   | DSS  | S-36 Installation and Operational 2016 – A placeholder has been set awaiting         |
|   | date | es .   |
|   | DSS  | S-55 80kW Installation 2016 – 2017   |
|   |      | 80kW Facility Prep – February 2016, weeks 05 – 10                                    |
|   |      | 80kW at DLF September, 2016, week 39   |
|   |      | 80kW on-site November, 2016, week 47   |
|   | _    | 80kW install January – June, 2017, weeks 01 – 24                                     |
|   |      | 80kW test June – September, 2017, weeks 24 – 37                                      |
|   |      | DDR September 2017 week 39   |



#### Resource Allocation Planning Service



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#### Antenna Downtime Status and Forecast

|         |         |        | S-B      | and | Х-В         | and      | Ka-E     | Band     | Ka Phase 2   | X-Band  | 80KW     |  |
|---------|---------|--------|----------|-----|-------------|----------|----------|----------|--------------|---------|----------|--|
| Complex | Station | Subnet | Down Up  |     | Down        | Up       | Down     | Up       | rta i naco 2 | ACQ AID |          |  |
| 10      | DSS-27  | 34HSB  | >        | >   | N/A         | N/A      | N/A      | N/A      | N/A          | N/A     | N/A      |  |
| 10      | DSS-24  | 34B1   | <b>,</b> | *   | 4           | 4        | N/A      | N/A      | •            | ~       | N/A      |  |
| 40      | DSS-34  | 34B1   | <b>\</b> | •   | <b>&gt;</b> | >        | >        | N/A      | •            | •       | N/A      |  |
| 60      | DSS-54  | 34B1   | <b>\</b> | •   | <b>&gt;</b> | >        | >        | N/A      | •            | •       | N/A      |  |
| 10      | DSS-25  | 34B2   | N/A      | N/A | *           | *        | *        | 05/17/11 | N/A          | N/A     | 10/01/15 |  |
| 10      | DSS-26  | 34B2   | N/A      | N/A | *           | *        | *        | N/A      | N/A          | N/A     | N/A      |  |
| 40      | DSS-35* | 34B2   | N/A      | N/A | 11/01/14    | 11/01/14 | 11/01/14 | N/A      | N/A          | N/A     | 11/01/16 |  |
| 40      | DSS-36* | 34B2   | N/A      | N/A | 11/01/16    | 11/01/16 | 11/01/16 | N/A      | N/A          | N/A     | N/A      |  |
| 60      | DSS-55  | 34B2   | N/A      | N/A | *           | >        | >        | N/A      | N/A          | N/A     | 10/01/17 |  |
| 10      | DSS-15  | 34HEF  | *        | N/A | 4           | 4        | N/A      | N/A      | N/A          | N/A     | N/A      |  |
| 40      | DSS-45  | 34HEF  | <b>,</b> | *   | *           | *        | N/A      | N/A      | N/A          | N/A     | N/A      |  |
| 60      | DSS-65  | 34HEF  | ~        | ~   | *           | *        | N/A      | N/A      | N/A          | N/A     | N/A      |  |
| 10      | DSS-14  | 70M    | *        | *   | *           | >        | N/A      | N/A      | N/A          | N/A     | N/A      |  |
| 40      | DSS-43  | 70M    | <b>~</b> | •   | *           | <b>Y</b> | N/A      | N/A      | N/A          | N/A     | N/A      |  |
| 60      | DSS-63  | 70M    | ~        | •   | <b>&gt;</b> | >        | N/A      | N/A      | N/A          | N/A     | N/A      |  |

N/A = Capability Not Planned

xx/xx/xx = Capability Date Recently Changed

✓ ✓ ✓ = Capability Recently Exists

**▼** = Capability Exists

8/4/2011 As of:

\* = To Be Commissioned