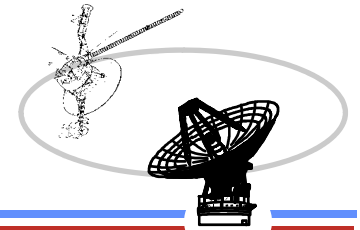


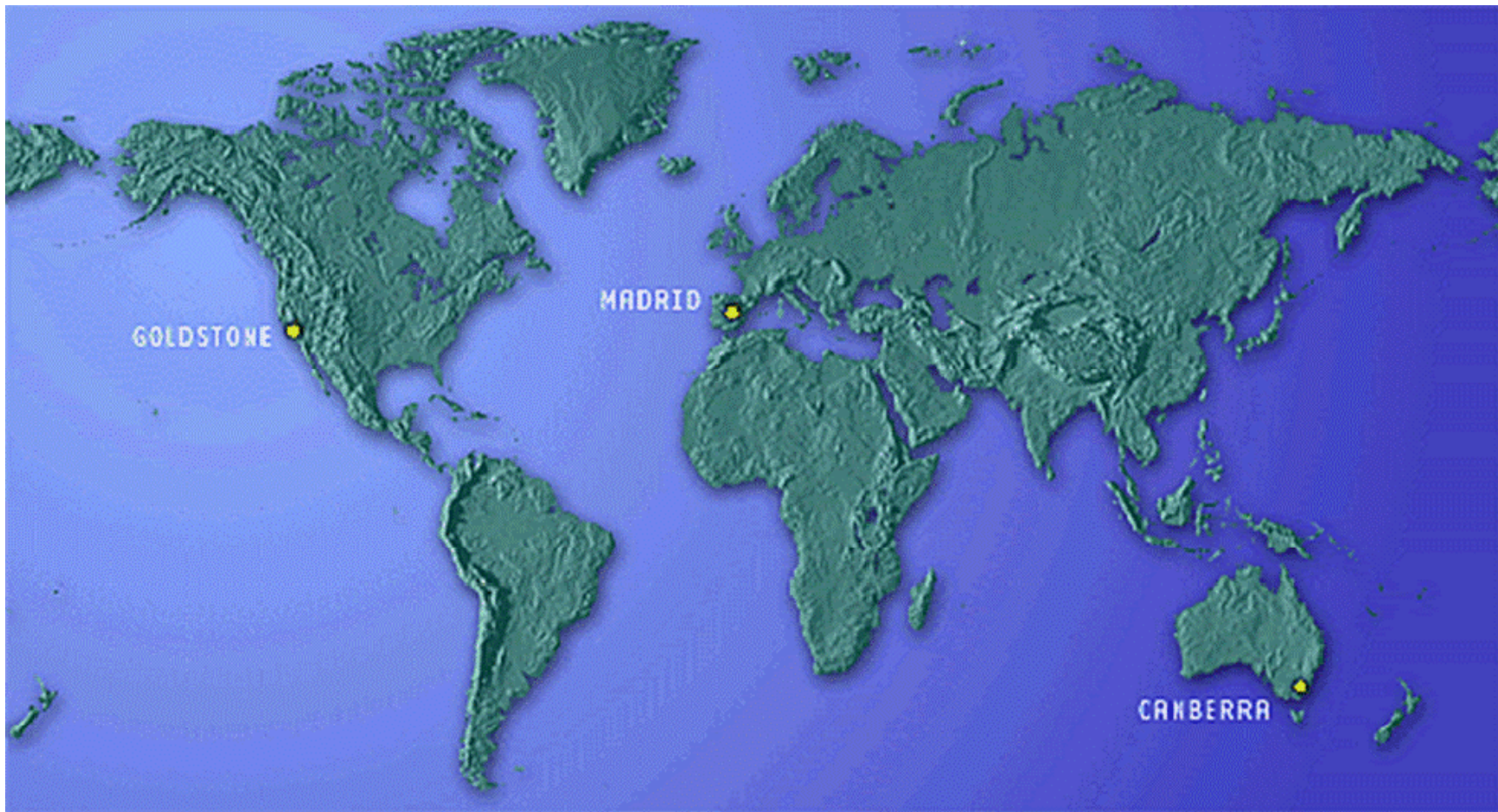


Interplanetary Network Directorate (IND)  
Deep Space Network (DSN)  
Resource Allocation Planning Service



Jet Propulsion Laboratory  
California Institute of Technology

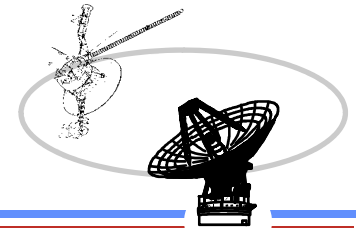
## DSN Antenna Downtime Status and Forecast





Jet Propulsion Laboratory  
California Institute of Technology

# Interplanetary Network Directorate (IND) Deep Space Network (DSN) Resource Allocation Planning Service



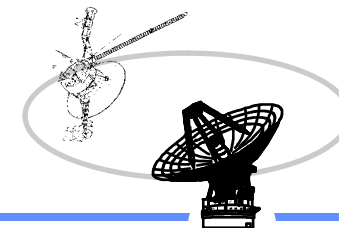
- 2012 -

	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 32 33 34 35	36 37 38 39	40 41 42 43 44	45 46 47 48	49 50 51 52					
2012 Key Project Events	MSL TCM				MSL TCM		MSL FSW Update		MSL ENG C/O 1		MSL TCM/EDL					
	GRAIL A/B PRM				MSL INST C/O 1		MSL TCM/EDL		MSL ENG C/O 2		MSL EDL					
	VEX Drag Pass				GRAIL A/B Science				MSL Approach		MSL Surface Ops					
	DAWN Vesta Orbit				DAWN Vesta Depart				DAWN Forced Coast							
	GSSR Ast 1991 VK				GSSR Venus/Mercury GBT				GRAIL A/B OCM		GSSR Ast 2004 EW9		Dawn Ceres Thrust			
	KEPL MS		KEPL MS		KEPL QR/MS		KEPL MS		KEPL MS		KEPL QR/MS		KEPL MS			
	JUNO TCM		JUNO DSMs DDOR		WIND TCM		GSSR Merc GBT		JUNO DSM		KEPL MS		WIND TCM VEX Drag Pass			
	GSSR Ast Eros		GSSR Ast 2011 CP4		MSGR OCM		GSSR Ast 2007 LE WIND TCM		JUNO TCM		JUNO Per Maint		GSSR Ast 2007 PA8			
	CHDR DC		MSGR TCM/OCM		CHDR DC		GSSR Ast 2001 CQ36		CHDR DC		GRAIL A/B ECM		CHDR Leonid			
	SOHO MNVR		GSSR Ast 2000 ET70		CHDR Earth Eclipse		GSSR Ast 2005 G021		CHDR Earth Eclipse		VEX Drag Pass					
	MRO and M010 Relay															
	SOHO KH		WIND TCM		SOHO KH		GSSR Ast 1998 HE3		SOHO KH		SOHO KH		SOHO KH			
	NHPC Enter Hibernation		SOHO MNVR		SOHO MNVR		SOHO MNVR		SOHO MNVR		SOHO MNVR		GSSR Ast 1998 ST49			
	NHPC Exit Hibernation		VGR1 DTR PB		NHPC Checkout		GSSR Ast 2002 AM31		NHPC Solar Conj		NHPC Solar Conj		NHPC Solar Conj			
	NHPC Solar Conj		NHPC Exit Hibernation		NHPC MNVR		NHPC Enter Hibernation		CAS Atmospheric Occ		GSSR Ast 1994 XD		GSSR Ast 1994 XD			
NHPC C/O		GSSR Ast 2006 CJ		NHPC S/W Load		NHPC 2TWTA		CAS Saturn Rings Occ		DIF TCM		VGR1 DTR PB				
NHPC Radio Occultation		NHPC MNVR		CAS TITAN		CAS Saturn Rings Occ		CAS Saturn Rings Occ		VGR1 DTR PB		CAS Saturn Rings Occ				
CAS TITAN		CAS TITAN		CAS ENCELADUS		CAS TITAN		CAS Saturn Rings Occ		GSSR Ast 1998 ST49		GSSR Ast 4179 Tout				
CAS TITAN		CAS TITAN		CAS ENCELADUS		CAS ENCELADUS Gravity Experiment		CAS TITAN		CAS TITAN		CAS TITAN				
Key Project Events Legend: Level 1 (Red), Level 2 (Yellow), Level 3 (Green), All Others (Grey)																
GDSCC	D15 TXR Manifold Upgrade				D14,15,24,25,26,27 Antenna Inspection											
	D15 Chiller Replacement				Complex NMC Acceptance Test											
	D26 Antenna Controller Replacement				DCD - NIB				D25 Antenna Controller Replacement							
	Complex NMC Test				D26 APCA OP-C				D25 Lightning Survey - NIB							
CDSCC	Complex NMC Test				D24 S-Band Tuner Replacement											
	70M Tune-up/Cal				D24 APCA OP-C - NIB											
	D14 Plug Seal Replacement - NIB				D15 Baldor Amplifier Expansion Board Installation											
	D43 70M Tune-up/Cal				Complex NMC Soak Test				Complex Powerhouse Commission							
MDSCC	DPS Power Upgrade				DCD - NIB											
	D45 XTR Manifold/Waterload Replacement				D45 AMP/CW Installation - NIB											
	D45 XTR Manifold/Waterload Replacement				D34 Baldor Amplifier Expansion Board Installation											
	D45 AMP/CW Installation - NIB				D34 X/Ka Cooldown - NIB											
D63 Grouting				D65 XTR Manifold/Waterload Replacement												
D63 70M Tune-up/Cal - NIB				D65 AMP/CW Installation - NIB												
D55 Chiller Flush				D65 Critical Power Reconfiguration												
				Complex NMC Soak Test				D51 AZ Track Replacement/ACR								
				DCD - NIB				D54 Lightning Survey - NIB								
								D54 AMP Implementation - NIB								

Revised: June 5, 2012



Interplanetary Network Directorate (IND)  
 Deep Space Network (DSN)  
 Resource Allocation Planning Service



Jet Propulsion Laboratory  
 California Institute of Technology

## DSN Downtime 2012

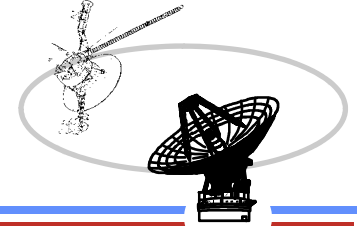
2012							
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 65	Critical Power Reconfiguration	06/07/2012 02:35	06/08/2012 16:30	2	23 - 23	159	160
DSS 25	Antenna Controller Replacement	06/11/2012 13:00	07/15/2012 01:00	34	24 - 28	163	197
DSS 25	Lightning Survey - NIB	06/11/2012 13:00	07/15/2012 01:00	34	24 - 28	163	197
DSS 34	AMP Installation	06/13/2012 22:00	06/16/2012 06:25	2	24 - 24	165	168
DSS 34	X/Ka Cool Down - NIB	06/13/2012 22:00	06/16/2012 06:25	2	24 - 24	165	168
DSS 15	AMP Installation	06/21/2012 08:00	06/22/2012 22:00	2	25 - 25	173	174
SPC 60	DCD 229 - NIB	06/23/2012 21:25	06/24/2012 03:25	0	25 - 25	175	176
SPC 60	NMC D2.2 SOAK	06/23/2012 21:25	06/24/2012 03:25	0	25 - 25	175	176
SPC 40	DCD 229 - NIB	06/27/2012 23:10	06/28/2012 05:10	0	26 - 26	179	180
SPC 40	NMC D2.2 SOAK	06/27/2012 23:10	06/28/2012 05:10	0	26 - 26	179	180
DSS 54	AMP Installation - NIB	09/10/2012 05:00	11/25/2012 18:00	77	37 - 47	254	330
DSS 54	AZ TRK/ACR Replacement	09/10/2012 05:00	11/25/2012 18:00	77	37 - 47	254	330
DSS 54	Lightning Survey - NIB	09/10/2012 05:00	11/25/2012 18:00	77	37 - 47	254	330
DSS 43	HBA Upgrade and Life Extension	11/12/2012 19:00	06/10/2013 07:00	210	46 - 24	317	161
SPC 40	Powerhouse Commission	12/04/2012 04:15	12/04/2012 07:15	0	49 - 49	339	339
SPC 40	Powerhouse Commission	12/04/2012 21:00	12/05/2012 00:00	0	49 - 49	339	340
SPC 40	Powerhouse Commission	12/05/2012 21:00	12/06/2012 00:00	0	49 - 49	340	341
SPC 40	Powerhouse Commission	12/06/2012 21:00	12/07/2012 00:00	0	49 - 49	341	342





Jet Propulsion Laboratory  
California Institute of Technology

# Interplanetary Network Directorate (IND) Deep Space Network (DSN) Resource Allocation Planning Service



## Antenna Downtime Status and Forecast

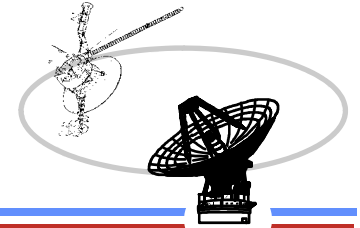
The following are downtimes for 2012

- SPC-10, 40 and 60 requested 4 – 6 hour complex wide downtime for NMC D2.2 Test and SOAK in 2012 - **SPC -10 Completed**
  - SPC-10 acceptance testing was scheduled in week 19 and SOAK in week 20
    - Data Capture and Delivery (DCD 229) was scheduled NIB to SOAK in week 20, the NOCC was also be down during this time frame, all data at the complexes was recorded and sent later.
  - SPC-60 SOAK is scheduled for week 25
    - Data Capture and Delivery (DCD 229) will be scheduled NIB
  - SPC-40 SOAK is scheduled for week 26
    - Data Capture and Delivery (DCD 229) will be scheduled NIB
- DSS-45 and DSS-65 requested 10 days of downtime in 2012 for Waterload and XTXR Manifold Replacement - **Completed**
  - DSS-45 was scheduled for weeks 17 – 19
    - DSS-45 had additional downtime hours added for adequate testing of the Antenna Servo Amplifier.
  - DSS-65 was scheduled for May 16 – 26, weeks 20 and 21.
  - ECR 11.0070 (Baldor amplifier expansion board installation) and ECR 10.0014 (Cable Wrap Protection) implementation was be NIB
- DSS-24 S-Band Tuner Replacement downtime requested - **Completed**
  - Three and ½ days was scheduled for week 19
    - APCA OP-C will be NIB.



Jet Propulsion Laboratory  
California Institute of Technology

# Interplanetary Network Directorate (IND) Deep Space Network (DSN) Resource Allocation Planning Service



## Antenna Downtime Status and Forecast

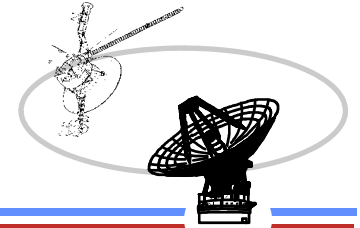
The following are downtimes for 2012 (continued)

- SPC-10 request a 24 hour downtime on each antenna for inspection - **Completed**
  - Antennas include DSS-14, 15, 24, 25, 26 and 27
  - Week 20 inspection times were proposed for 8 hours NIB to maintenance plus 8 hours swing shift ,except for DSS-24, (only 8 hours NIB to maintenance)
  - Week 21 inspection times were proposed for 8 hours NIB to maintenance except DSS-24, (8 hours NIB to maintenance plus 8 hours swing shift )
  
- DSS-65 Critical Power Reconfiguration downtime requested**
  - Scheduled for June 7 and 8, week 23**
  
- DSS-34 and DSS-15 ECR 11.0070 Baldor amplifier expansion board installation
  - DSS-34 Scheduled for June 13 – 16, week 24
    - X/Ka Cool down scheduled NIB**
  - DSS-15 is scheduled for June 21 and 22, week 25 – Moved from 2013 timeframe**
  
- BWG Antenna Controller Replacement
  - DSS-25 is scheduled for June 11 – July 15, 2012, weeks 24 – 28
    - Lightning Survey will be NIB
  - DSS-54 ACR and AZ Track Replacement is scheduled for September 10 – November 25, 2012, weeks 37 – 47
    - Lightning Survey will be NIB
    - ECR 11.0070 (Baldor amplifier expansion board installation) will be NIB



Jet Propulsion Laboratory  
California Institute of Technology

Interplanetary Network Directorate (IND)  
Deep Space Network (DSN)  
Resource Allocation Planning Service



## Antenna Downtime Status and Forecast

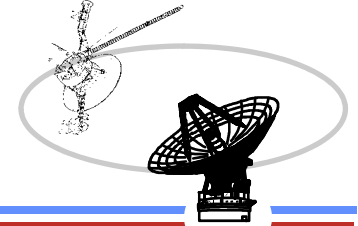
The following are downtimes for 2012 (continued)

- SPC-40 requests 4 blocks of 3 hour complex wide downtime for Power House Commission
  - Week 49 is scheduled, Four days for 3 hours
  
- DSS-43 HBA Upgrade and Life Extension downtime is scheduled
  - DSS-43 HBA Upgrade downtime is scheduled as one continuous downtime for week 46 of 2012 to week 23 of 2013
  - S-Band Maser Replacement will be NIB
  - Power ECO will be scheduled NIB**



Jet Propulsion Laboratory  
California Institute of Technology

# Interplanetary Network Directorate (IND) Deep Space Network (DSN) Resource Allocation Planning Service



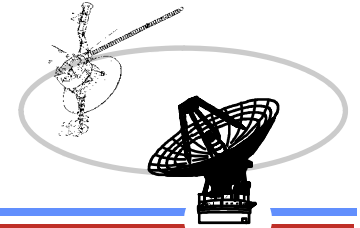
## Antenna Downtime Status and Forecast

The following are downtimes for 2013 – 2014

- SPC-60 requests six 10 hour blocks of Complex Wide Downtime for Power Cutover from January – June of 2013
  - Downtimes are proposed for the following weeks – prime shift hours are requested.
  - Weeks 04, 09,13,17,22 and 26
  
- BWG Antenna Controller Replacement for 2013
  - DSS-55 is proposed for February 18 – March 25, weeks 08 – 13
  - ECR 11.0070 (Baldor amplifier expansion board installation) will be NIB
  
- SPC-10 requests four 10-hour blocks of Complex Wide downtime for G86 Power Cutover and two 12-hour blocks of downtime for Power Robustness in 2013
  - G86 Power cutover downtimes are proposed for the following weeks – night hours are acceptable.
  - Weeks 14, 19, 24 and 31
  - Power Robustness is proposed for the following weeks
  - weeks 31 and 32
  - One of the Power robustness downtimes could co-exist with G86 power cutover, proposed for week 31
  
- SPC-10 requests one 6 – 8 hour complex wide downtime for NMC Automated Link Build (ALB)
  - Proposed for March 21, 2013, week 12



## Interplanetary Network Directorate (IND) Deep Space Network (DSN) Resource Allocation Planning Service



### The following are downtimes for 2013 – 2014 (continued)

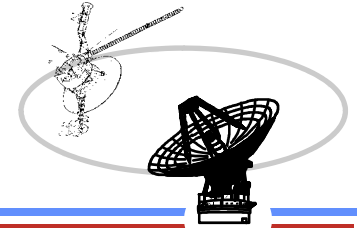
- ❑ SPC-40 request 8 blocks of 3 hour complex downtime for Power House Commission in 2013. The following weeks are proposed
  - ❑ Five blocks, 3 hours in April, week 16
  - ❑ Three blocks, 3 hours in April/May, week 18
  
- ❑ AZ Track Replacement downtime is requested for DSS-24 and DSS-26
  - ❑ DSS-24 is proposed for March 25 – June 3, 2013, weeks 13 – 22
  - ❑ DSS-26 is proposed for March 31 – June 8, 2014, weeks 14 – 23
    - ❑ Reconfiguration Prep is proposed for March 10 – June 30, weeks 11 - 26
    - ❑ 80 kW Facility Preparation will be scheduled NIB March 31 – May 18, weeks 14 – 20
  
- ❑ SPC-40 request a 24 hour downtime on each antenna for inspection in 2013
  - ❑ Antennas include DSS- 34, 43 and 45
  - ❑ Week 23 inspection times are proposed for 8 hours NIB to maintenance plus 8 hours swing shift – Except DSS-43 which will be done during HBA downtime
  - ❑ Week 24 inspection times are proposed for 8 hours NIB to maintenance





Jet Propulsion Laboratory  
California Institute of Technology

## Interplanetary Network Directorate (IND) Deep Space Network (DSN) Resource Allocation Planning Service



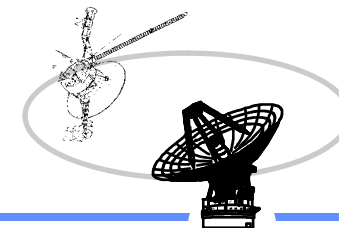
### The following are downtimes for 2013 – 2014 (continued)

- DSS-63 downtime for Grouting 2013
  - Proposed for July 15 – August 2, weeks 29 – 31
    - Note: Stand alone Grouting typically requires 15 days, however, 3 additional days have been requested
  
- DSS-15 Maser Replacement is requested for 2013
  - Seventy seven days are proposed for August 12, – November 4, weeks 33– 44
  
- DSS-63 HBA Upgrade and Life Extension downtime is proposed for 2014
  - Proposed for March 10 – October 5, weeks 11– 40
    - ZDD will be scheduled prior to return to service
  
- SPC-60 request a 24 hour downtime on each antenna for inspection in 2014
  - Antennas include DSS-54, 55, 63 and 65
  - Week 40 inspection times are proposed for 8 hours NIB to maintenance plus 8 hours swing shift – Except DSS-63 which will be done during HBA downtime
  - Week 41 inspection times are proposed for 8 hours NIB to maintenance





Interplanetary Network Directorate (IND)  
 Deep Space Network (DSN)  
 Resource Allocation Planning Service



Jet Propulsion Laboratory  
 California Institute of Technology

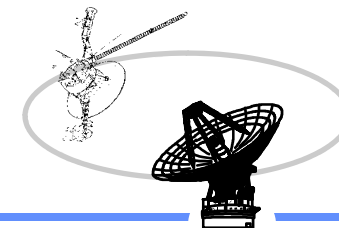
## DSN Downtime 2013

2013							
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 54	Complex Power Cutover - Proposed	01/23/2013 05:00	01/23/2013 17:00	0	04 - 04	23	23
DSS 55	Complex Power Cutover - Proposed	01/23/2013 05:00	01/23/2013 17:00	0	04 - 04	23	23
DSS 63	Complex Power Cutover - Proposed	01/23/2013 05:00	01/23/2013 17:00	0	04 - 04	23	23
DSS 65	Complex Power Cutover - Proposed	01/23/2013 05:00	01/23/2013 17:00	0	04 - 04	23	23
DSS 55	AMP Installation - NIB	02/18/2013 00:00	03/25/2013 00:00	35	08 - 13	49	84
DSS 55	Antenna Controller Replacement - Proposed	02/18/2013 00:00	03/25/2013 00:00	35	08 - 13	49	84
DSS 43	Maser Replacement - NIB	02/25/2013 05:00	04/25/2013 17:00	60	09 - 17	56	115
DSS 54	Complex Power Cutover - Proposed	02/27/2013 05:00	02/27/2013 17:00	0	09 - 09	58	58
DSS 55	Complex Power Cutover - Proposed	02/27/2013 05:00	02/27/2013 17:00	0	09 - 09	58	58
DSS 63	Complex Power Cutover - Proposed	02/27/2013 05:00	02/27/2013 17:00	0	09 - 09	58	58
DSS 65	Complex Power Cutover - Proposed	02/27/2013 05:00	02/27/2013 17:00	0	09 - 09	58	58
SPC 10	NMC Automated Link Build - Proposed	03/21/2013 00:00	03/21/2013 06:00	0	12 - 12	80	80
DSS 24	AZ Track Replacement - Proposed	03/25/2013 00:00	06/03/2013 00:00	70	13 - 23	84	154
DSS 54	Complex Power Cutover - Proposed	03/27/2013 05:00	03/27/2013 17:00	0	13 - 13	86	86
DSS 55	Complex Power Cutover - Proposed	03/27/2013 05:00	03/27/2013 17:00	0	13 - 13	86	86
DSS 63	Complex Power Cutover - Proposed	03/27/2013 05:00	03/27/2013 17:00	0	13 - 13	86	86
DSS 65	Complex Power Cutover - Proposed	03/27/2013 05:00	03/27/2013 17:00	0	13 - 13	86	86
SPC 10	Complex Power Cutover - Proposed	04/01/2013 15:00	04/02/2013 01:00	0	14 - 14	91	92
SPC 40	Powerhouse Commission - Proposed	04/15/2013 21:00	04/16/2013 00:00	0	16 - 16	105	106
SPC 40	Powerhouse Commission - Proposed	04/16/2013 21:00	04/17/2013 00:00	0	16 - 16	106	107
SPC 40	Powerhouse Commission - Proposed	04/17/2013 21:00	04/18/2013 00:00	0	16 - 16	107	108
SPC 40	Powerhouse Commission - Proposed	04/19/2013 21:00	04/20/2013 00:00	0	16 - 16	109	110
DSS 54	Complex Power Cutover - Proposed	04/24/2013 05:00	04/24/2013 17:00	0	17 - 17	114	114
DSS 55	Complex Power Cutover - Proposed	04/24/2013 05:00	04/24/2013 17:00	0	17 - 17	114	114



Jet Propulsion Laboratory  
California Institute of Technology

# Interplanetary Network Directorate (IND) Deep Space Network (DSN) Resource Allocation Planning Service

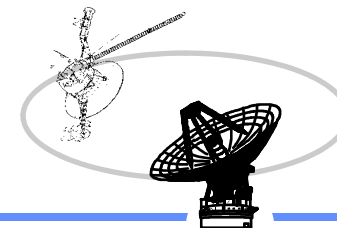


## DSN Downtime 2013

2013							
DSS 63	Complex Power Cutover - Proposed	04/24/2013 05:00	04/24/2013 17:00	0	17 - 17	114	114
DSS 65	Complex Power Cutover - Proposed	04/24/2013 05:00	04/24/2013 17:00	0	17 - 17	114	114
SPC 40	Powerhouse Commission - Proposed	04/29/2013 21:00	04/30/2013 00:00	0	18 - 18	119	120
SPC 40	Powerhouse Commission - Proposed	04/30/2013 21:00	05/01/2013 00:00	0	18 - 18	120	121
SPC 40	Powerhouse Commission - Proposed	05/01/2013 21:00	05/02/2013 00:00	0	18 - 18	121	122
SPC 10	Complex Power Cutover - Proposed	05/06/2013 15:00	05/07/2013 01:00	0	19 - 19	126	127
DSS 54	Complex Power Cutover - Proposed	05/29/2013 05:00	05/29/2013 17:00	0	22 - 22	149	149
DSS 55	Complex Power Cutover - Proposed	05/29/2013 05:00	05/29/2013 17:00	0	22 - 22	149	149
DSS 63	Complex Power Cutover - Proposed	05/29/2013 05:00	05/29/2013 17:00	0	22 - 22	149	149
DSS 65	Complex Power Cutover - Proposed	05/29/2013 05:00	05/29/2013 17:00	0	22 - 22	149	149
DSS 43	Antenna Inspection - Proposed	06/03/2013 22:00	06/04/2013 14:00	1	23 - 23	154	155
DSS 34	Antenna Inspection - Proposed	06/04/2013 22:00	06/05/2013 14:00	1	23 - 23	155	156
DSS 45	Antenna Inspection - Proposed	06/05/2013 22:00	06/06/2013 14:00	1	23 - 23	156	157
SPC 10	Complex Power Cutover - Proposed	06/10/2013 15:00	06/11/2013 01:00	0	24 - 24	161	162
DSS 34	Antenna Inspection - Proposed	06/11/2013 22:00	06/12/2013 06:00	0	24 - 24	162	163
DSS 45	Antenna Inspection - Proposed	06/12/2013 22:00	06/13/2013 06:00	0	24 - 24	163	164
DSS 54	Complex Power Cutover - Proposed	06/27/2013 05:00	06/27/2013 17:00	0	26 - 26	178	178
DSS 55	Complex Power Cutover - Proposed	06/27/2013 05:00	06/27/2013 17:00	0	26 - 26	178	178
DSS 63	Complex Power Cutover - Proposed	06/27/2013 05:00	06/27/2013 17:00	0	26 - 26	178	178
DSS 65	Complex Power Cutover - Proposed	06/27/2013 05:00	06/27/2013 17:00	0	26 - 26	178	178
DSS 63	Grouting - Proposed	07/15/2013 00:00	08/02/2013 00:00	18	29 - 31	196	214
SPC 10	Complex Power Cutover - NIB	07/29/2013 15:00	07/30/2013 01:00	0	31 - 31	210	211
SPC 10	Power Robustness - Proposed	07/29/2013 15:00	07/30/2013 03:00	0	31 - 31	210	211
SPC 10	Power Robustness - Proposed	08/06/2013 15:00	08/07/2013 03:00	0	32 - 32	218	219
DSS 15	Maser Replacement - Proposed	08/12/2013 14:00	11/04/2013 01:00	83	33 - 45	224	308

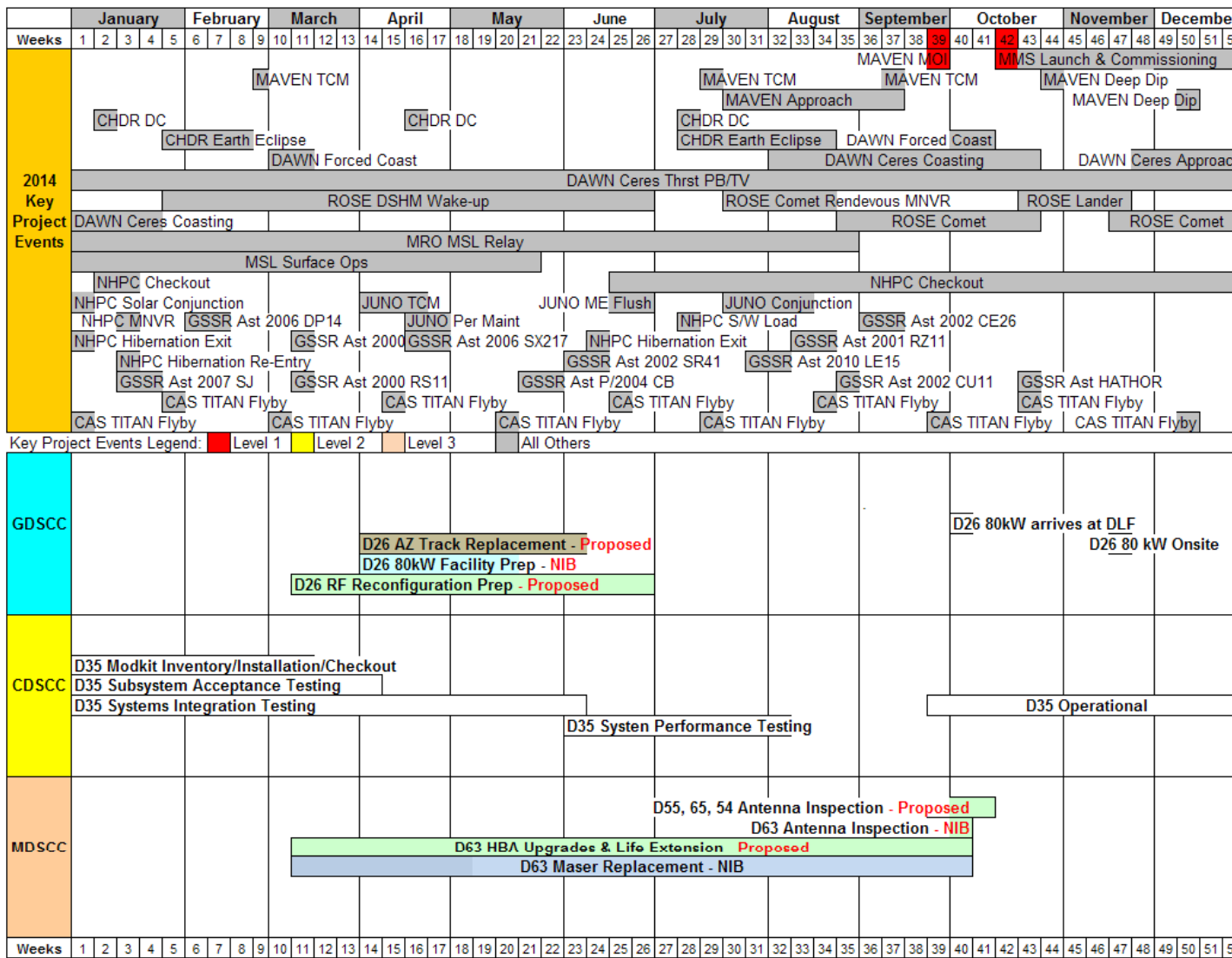


# Interplanetary Network Directorate (IND) Deep Space Network (DSN) Resource Allocation Planning Service



**Jet Propulsion Laboratory**  
California Institute of Technology

**- 2014 -**

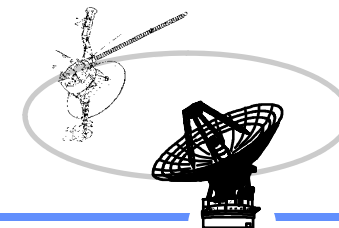


Revised: June 5, 2012





Interplanetary Network Directorate (IND)  
 Deep Space Network (DSN)  
 Resource Allocation Planning Service



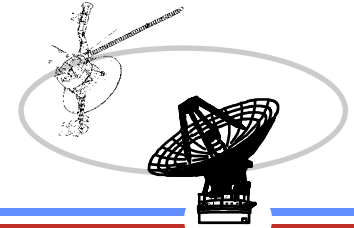
Jet Propulsion Laboratory  
 California Institute of Technology

## DSN Downtime 2014

2014							
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 26	RF Reconfiguration Prep - Proposed	03/10/2014 00:00	06/29/2014 00:00	111	11 - 26	69	180
DSS 63	HBA Upgrades and Life Extension - Proposed	03/10/2014 00:00	10/05/2014 00:00	209	11 - 40	69	278
DSS 63	S-Band Maser Replacement - NIB	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
DSS 55	Antenna Inspection - Proposed	09/29/2014 07:00	09/29/2014 23:00	1	40 - 40	272	272
DSS 65	Antenna Inspection - Proposed	09/30/2014 07:00	09/30/2014 23:00	1	40 - 40	273	273
DSS 63	Antenna Inspection - Proposed	10/01/2014 07:00	10/01/2014 23:00	1	40 - 40	274	274
DSS 54	Antenna Inspection - Proposed	10/03/2014 07:00	10/03/2014 23:00	1	40 - 40	276	276
DSS 55	Antenna Inspection - Proposed	10/06/2014 07:00	10/06/2014 16:30	0	41 - 41	279	279
DSS 65	Antenna Inspection - Proposed	10/07/2014 07:00	10/07/2014 16:30	0	41 - 41	280	280
DSS 54	Antenna Inspection - Proposed	10/10/2014 07:00	10/10/2014 16:30	0	41 - 41	283	283



# Interplanetary Network Directorate (IND) Deep Space Network (DSN) Resource Allocation Planning Service



**Jet Propulsion Laboratory**  
California Institute of Technology

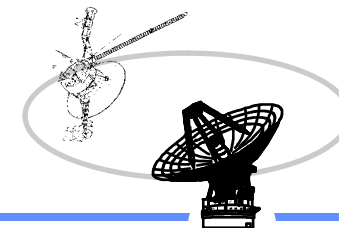
**- 2015 -**

	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	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53																																																																																																																																																
<b>2015 Key Project Events</b>	MMS Commissioning													NHPC TCM						NHPC TCM						NHPC Pluto Encounter						NHPC Checkout																																																																																																																																																																					
	NHPC Pluto Approach																		NHPC Pluto Science PB																																																																																																																																																																																		
	NHPC Solar Conjunction									NHPC TCM									NHPC TCM									NHPC Solar Conjunction																																																																																																																																																																									
	MAVEN Deep Dip										MAVEN Deep Dip										MAVEN Deep Dip										MAVEN Conjunction																																																																																																																																																																						
	ROSE Comet																																																																																																																																																																																																				
	MMS Phase 1 Maneuver																																																																																																																																																																																																				
	DAWN Ceres Approach																		DAWN Ceres Orbit																		JUNO Conjunction																		JUNO Early Approach																																																																																																																																														
	JUNO Per Maint																		JUNO JOI DDOR																		JUNO ME Flush																		GSSR Ast 1994 AW1																		GSSR Ast 2003 SD220																																																																																																																												
	GSSR Ast 1999 JD6																		GSSR Ast 2003 RB																		GSSR Ast 1998 WT24																		GSSR Ast 2004 BL86																																																																																																																																														
	CAS TITAN Flyby																		CAS TITAN Flyby																		CAS TITAN Flyby																		CAS TITAN Flyby																		CAS TITAN Flyby																		CAS TITAN Flyby																		CAS TITAN Flyby																		CAS ENCELADUS Flyby																		CAS ENCELADUS Flyby																		CAS ENCELADUS Flyby																		CAS ENCELADUS Flyby																
Key Project Events Legend: <span style="color: red;">■</span> Level 1 <span style="color: yellow;">■</span> Level 2 <span style="color: orange;">■</span> Level 3 <span style="color: grey;">■</span> All Others																																																																																																																																																																																																					
<b>GDSCC</b>	D26 Install 80kW																		D26 Test 80kW																		D26 80kW DDR																																																																																																																																																																
	D25 AZ Track Replacement - Proposed																		D25 Antenna Inspection - NIB																		D14, 26, 24, 15, 27 Antenna Inspection - Proposed																																																																																																																																																																
<b>CDSCC</b>	D45 Maser Replacement - Proposed																		D45 Antenna Drive Replacement - NIB																		D35 80kW Arrives to DLF																		D35 80kW Onsite																																																																																																																																														
	D36 Modkit Inventory/Installation/Checkout D36 Subsystem Acceptance Testing D36 Systems Integration Testing																																																																																																																																																																																																				
<b>MDSCC</b>	D65 Maser Replacement - Proposed																																																																																																																																																																																																				
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	53																																																																																																																																																

Revised: June 5, 2012



Interplanetary Network Directorate (IND)  
 Deep Space Network (DSN)  
 Resource Allocation Planning Service



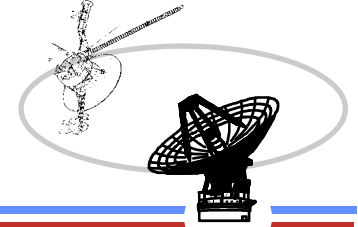
Jet Propulsion Laboratory  
 California Institute of Technology

## DSN Downtime 2015

2015							
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 45	Antenna Drive Replacement - NIB	01/12/2015 00:00	05/04/2015 00:00	112	03 - 19	12	124
DSS 45	Maser Replacement - Proposed	01/12/2015 00:00	05/04/2015 00:00	112	03 - 19	12	124
DSS 25	AZ Track Replacement - Proposed	03/02/2015 00:00	05/11/2015 00:00	70	10 - 20	61	131
DSS 14	Antenna Inspection - Proposed	05/04/2015 15:00	05/05/2015 06:00	1	19 - 19	124	125
DSS 26	Antenna Inspection - Proposed	05/05/2015 15:00	05/06/2015 06:00	1	19 - 19	125	126
DSS 25	Antenna Inspection - NIB	05/06/2015 15:00	05/07/2015 06:00	1	19 - 19	126	127
DSS 15	Antenna Inspection - Proposed	05/07/2015 15:00	05/08/2015 06:00	1	19 - 19	127	128
DSS 27	Antenna Inspection - Proposed	05/08/2015 14:00	05/08/2015 23:00	0	19 - 19	128	128
DSS 14	Antenna Inspection - Proposed	05/11/2015 14:00	05/11/2015 23:00	0	20 - 20	131	131
DSS 26	Antenna Inspection - Proposed	05/12/2015 14:00	05/12/2015 23:00	0	20 - 20	132	132
DSS 24	Antenna Inspection - Proposed	05/13/2015 15:00	05/14/2015 06:00	1	20 - 20	133	134
DSS 15	Antenna Inspection - Proposed	05/14/2015 14:00	05/14/2015 23:00	0	20 - 20	134	134
DSS 27	Antenna Inspection - Proposed	05/15/2015 14:00	05/15/2015 23:00	0	20 - 20	135	135
DSS 65	Maser Replacement - Proposed	08/03/2015 00:00	11/23/2015 00:00	112	32 - 48	215	327



# Interplanetary Network Directorate (IND) Deep Space Network (DSN) Resource Allocation Planning Service



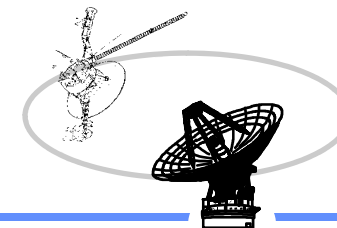
## Antenna Downtime Status and Forecast

The following are downtimes for 2015 – 2017

- ❑ Maser Replacement has been requested for 2015
  - ❑ DSS-45 is proposed for weeks 03 – 18
    - ❑ Antenna Drive Replacement will be NIB
  - ❑ DSS-65 is proposed for weeks 32 – 47
- ❑ AZ Track Replacement is requested for DSS-25 and DSS-55
  - ❑ DSS-25 is proposed for March 2 – May 11, 2015, weeks 10 – 19
  - ❑ 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
    - ❑ Reconfiguration Prep is proposed for February 1 – May 23, weeks 05 – 20
- ❑ SPC-10 request a 24 hour downtime on each antenna for inspection in 2015
  - ❑ Antennas include DSS-14, 15, 24, 25, 26 and 27
  - ❑ Week 19 inspection times are proposed for 8 hours NIB to maintenance plus 8 hours swing shift , – Except DSS-25 which will be done during AZ Track Replacement
  - ❑ Week 20 inspection times are proposed for 8 hours NIB to maintenance
- ❑ DSS-15 Antenna Drive Replacement requested for 2016
  - ❑ Proposed for July 11 – September 12, weeks 28 – 36
- ❑ DSS-65 Antenna Drive Replacement requested for 2017



# Interplanetary Network Directorate (IND) Deep Space Network (DSN) Resource Allocation Planning Service



**Jet Propulsion Laboratory**  
California Institute of Technology

**- 2016 -**

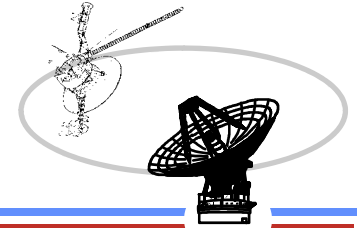
	January	February	March	April	May	June	July	August	September	October	November	December	
Weeks	1 2 3 4	5 6 7 8	9 10 11 12 13	14 15 16 17	18 19 20 21	22 23 24 25 26	27 28 29 30	31 32 33 34	35 36 37 38 39	40 41 42 43	44 45 46 47	48 49 50 51 52	
2016 Key Project Events	ExoMars	NHPC Solar Conjunction	NHPC Pluto Science PB	NHPC Kuiper Belt Approach	JUNO Approach	JUNO TCM	JUNO JOI	JUNO Capture Orbit	JUNO Conjunction	JUNO Orbit Ops	ORX Launch		
	MMS Phase 1 Maneuver	MMS Phase 2a1	MMS Phase 2a2	MMS Phase 2b Maneuver	JUNO TCM	JUNO Approach	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	
	JUNO Approach	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	
	JUNO Approach	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	
	JUNO Approach	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	
	JUNO Approach	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	
	JUNO Approach	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	
	JUNO Approach	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	
	JUNO Approach	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	
	JUNO Approach	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	CAS TITAN Flyby	
Key Project Events Legend: <span style="color: red;">■</span> Level 1 <span style="color: yellow;">■</span> Level 2 <span style="color: orange;">■</span> Level 3 <span style="color: gray;">■</span> All Others													
GDSCC	D15 Antenna Drive Replacement - Proposed												
CDSCC	D35 Install 80kW D36 Modkit Inventory/Installation/Checkout D36 Subsystem Acceptance Testing D36 Systems Integration Testing D35 80kW Test D36 System Performance Testing D35 DDR D36 Operational												
MDSCC	D55 AZ Track Replacement - Proposed D55 80 kW Facility Prep NIB D55 RF Reconfiguration Prep - Proposed D55 80kW to DLF D55 80kW on site												
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	

Revised: June 5, 2012





Interplanetary Network Directorate (IND)  
Deep Space Network (DSN)  
Resource Allocation Planning Service



Jet Propulsion Laboratory  
California Institute of Technology

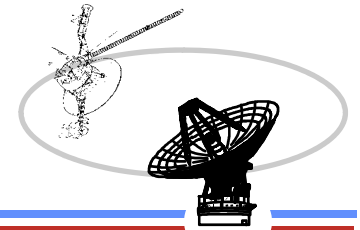
## DSN Downtime 2016

2016							
Site	Details	Start	End	Duration (Days)	Weeks	Start 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
DSS 55	RF Reconfiguration Prep - Proposed	02/01/2016 00:00	05/23/2016 00:00	112	05 - 21	32	144
DSS 15	Antenna Drive Replacement - Proposed	07/11/2016 00:00	09/07/2016 00:00	58	28 - 36	193	251



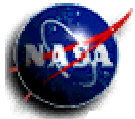


Interplanetary Network Directorate (IND)  
Deep Space Network (DSN)  
Resource Allocation Planning Service



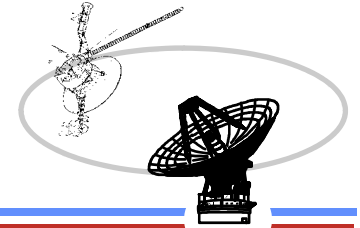
Jet Propulsion Laboratory  
California Institute of Technology

2017							
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 65	Antenna Drive Replacement	08/07/2017 00:00	10/02/2017 00:00	56	32 - 40	219	275



Jet Propulsion Laboratory  
California Institute of Technology

# Interplanetary Network Directorate (IND) Deep Space Network (DSN) Resource Allocation Planning Service

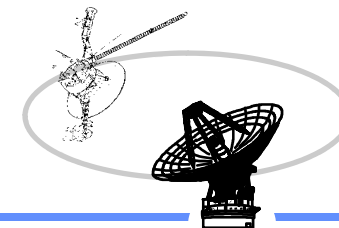


## Future assets new/upgrades

- ❑ DSS-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-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-35 80kW Installation 2016 – A placeholder has been set awaiting dates
- ❑ DSS-36 Installation and Operational 2016 – A placeholder has been set awaiting dates
- ❑ DSS-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



Interplanetary Network Directorate (IND)  
 Deep Space Network (DSN)  
 Resource Allocation Planning Service



### Antenna Downtime Status and Forecast

Complex	Station	Subnet	S-Band		X-Band		Ka-Band		Ka Phase 2	X-Band ACQ AID	80KW
			Down	Up	Down	Up	Down	Up			
10	DSS-27	34HSB	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10	DSS-24	34B1	✓	✓	✓	✓	N/A	N/A	✓	✓	N/A
40	DSS-34	34B1	✓	✓	✓	✓	✓	N/A	✓	✓	N/A
60	DSS-54	34B1	✓	✓	✓	✓	✓	N/A	✓	✓	N/A
10	DSS-25	34B2	N/A	N/A	✓	✓	✓	✓	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	✓	✓	N/A	N/A	N/A	N/A	N/A
40	DSS-45	34HEF	✓	✓	✓	✓	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	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
60	DSS-63	70M	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A

N/A = Capability Not Planned

xx/xx/xx = Capability Date Recently Changed

As of: 1/5/2012

✓ ✓ ✓ = Capability Recently Exists

✓ = Capability Exists

\* = To Be Commissioned