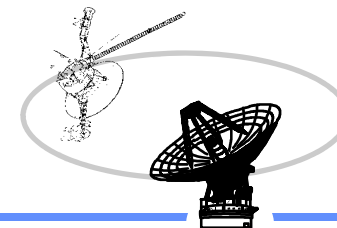


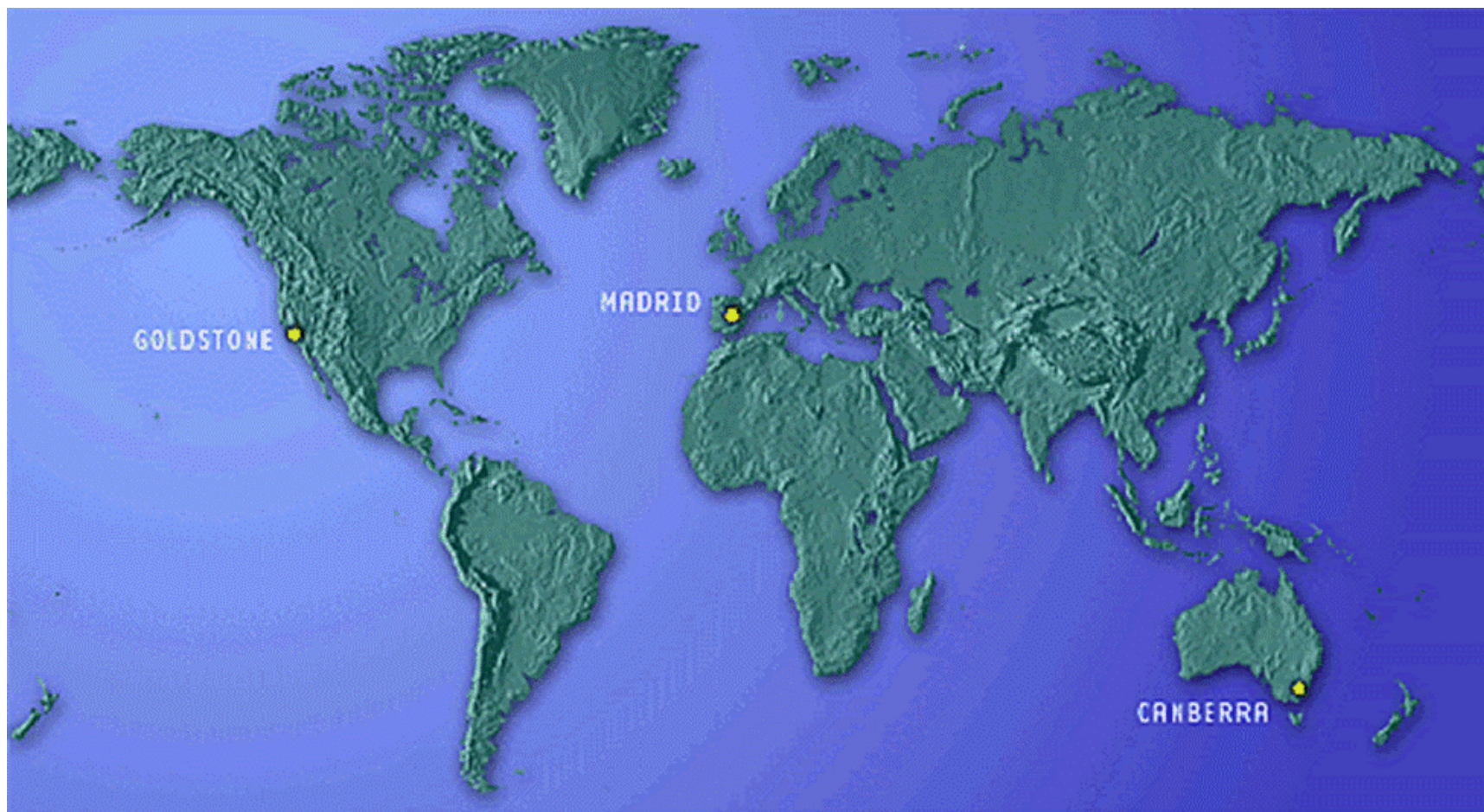


Interplanetary Network Directorate (IND)
Deep Space Network (DSN)
Resource Allocation Planning Service



JPL Jet Propulsion Laboratory
California Institute of Technology

DSN Antenna Downtime Status and Forecast

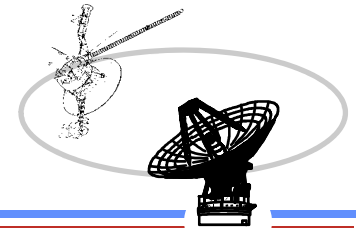




JPL

Jet Propulsion Laboratory
California Institute of Technology

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



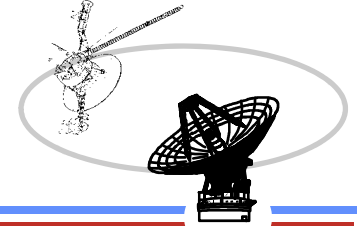
- 2012 -

	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/SOL				
	GRAIL A/B PRM		MSL INST C/O 1		MSL TCM/EDL		MSL ENG C/O 2		MSL EDL		LRO Station Keeping MNVR		
	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
	KEPL MS		KEPL QR/MS		KEPL MS		KEPL QR/MS		KEPL MS		KEPL QR/MS		KEPL MS
	JUNO TCM		JUNO DSMs DDOR		WIND TCM		GSSR Merc GBT		M010 OTM-7		JUNO DSM		KEPL MS/WIND TCM VEX OCC #13
	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 DC
	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		CHDR ACA DC MESR		SOHO KH
	NHPC Enter Hibernation		SOHO MNVR		SOHO MNVR		CAS Saturn Rings Occ		SOHO MNVR		GSSR Ast 1998 ST49		SOHO KH
	NHPC Exit Hibernation		VGR1 DTR PB		NHPC Checkout		GSSR Ast 2002 AM31				NHPC Solar Conj		
NHPC Solar Conj		NHPC Exit Hibernation		NHPC MNVR		NHPC Enter Hibernation		CAS Atmospheric Occ		GSSR Ast 1994 XD			
NHPC C/O		GSSR Ast 2006 CJ		NHPC S/W Load		NHPC 2TWTA		CAS USO Recovery Attempt		DIF TCM		VGR1 DTR PB	
NHPC Radio Occultation		CAS TITAN		CAS TITAN		CAS Saturn Rings Occ		CAS Saturn Rings Occ		VGR1 DTR PB		CAS Saturn Rings Occ	
NHPC MNVR		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 Atmos DE		CAS TITAN	
Key Project Events Legend: Level 1 Level 2 Level 3 All Others													
GDSCC			D15 TXR Manifold Upgrade		D14,15,24,25,26,27 Antenna Inspection								
			D15 Chiller Replacement		Complex NMC Acceptance Test		D25 Antenna Controller Replacement						
			D26 Antenna Controller Replacement		DCD - NIB		D25 Lightning Survey - NIB						
			Complex NMC Test		D26 APCA OP-C		Complex NMC Soak Test						
CDSCC			70M Tune-up/Cal		D24 S-Band Tuner Replacement								
			D14 Plug Seal Replacement -NIB		D24 APCA OP-C - NIB		D15 Baldor Amplifier Expansion Board Installation						
			D43 70M Tune-up/Cal		Complex NMC Soak Test		DCD - NIB						
			DPS Power Upgrade		D45 XTXR Manifold/Waterload Replacement		D45 AMP/CW Installation - NIB				D43 HBA Upgrade		
MDSCC			D63 Grouting		D65 XTXR Manifold/Waterload Replacement								
			D63 70M Tune-up/Cal - NIB		D65 AMP/CW Installation - NIB		D65 Critical Power Reconfiguration		D54 AZ Track Replacement/ACR				
			D55 Chiller Flush		D65 Emergency Grouting		D54 Lightning Survey - NIB						
					Complex NMC Soak Test		DCD - NIB						
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: December 3, 2012



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



JPL Jet Propulsion Laboratory
California Institute of Technology

DSN Downtime 2012

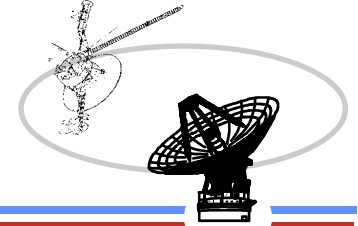
2012							
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 54	AZ TRK/ACR Replacement	09/10/2012 05:00	03/24/2013 16:30	195	37 - 12	254	83
DSS 43	HBA Upgrade and Life Extension	11/12/2012 19:00	06/10/2013 07:00	210	46 - 24	317	161



JPL

Jet Propulsion Laboratory
California Institute of Technology

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



Antenna Downtime Status and Forecast

Downtimes continued from 2012

- BWG Antenna Controller Replacement
 - DSS-54 ACR and AZ Track Replacement is scheduled for September 10 – April 12, 2013, weeks 37 – 15 due to serious issues discovered with the concrete core in the pedestal.

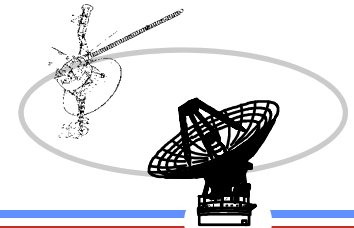
- DSS-43 request downtime for HBA Upgrade and Life Extension
 - DSS-43 HBA Upgrade downtime is scheduled as one continuous downtime for week 46 of 2012 to week 23 of 2013
 - S-Band Maser Replacement is NIB
 - Power ECO is NIB



JPL

Jet Propulsion Laboratory
California Institute of Technology

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



- 2013 -

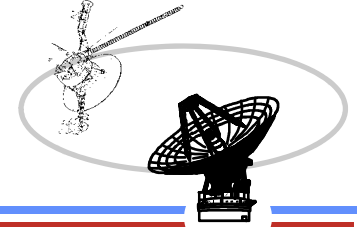
	January	February	March	April	May	June	July	August	September	October	November	December																																								
Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
2013 Key Project Events	WIND TCM					GSSR Ast 2002 AY1/APOPHIS					GSSR Ast 1993 UC					GSSR Ast 2002 OD20					LADEE Launch					MOM Launch					MAVEN Launch																					
	MSGR MET Rollover					DAWN Forced Coast					GSSR Ast 2005 NZ6					GSSR Ast 2001 PJ9					GSSR Ast 2007 CN26					DAWN Forced Coast																										
	DAWN Ceres Thrst PB/TV												DAWN Ceres Coasting																																							
	KEPL QR/MS			KEPL MS			KEPL QR/MS			KEPL MS			WIND TCM			GSSR Ast 1998 QE2			GSSR Ast 2005 WK4			KEPL MS			KEPL QR/MS			KEPL MS																								
	SOHO KH			GSSR Ast Camillo			SOHO KH			CHDR DC			KEPL MS			SOHO KH			CHDR DC			KEPL MS			SOHO KH			CHDR DC			CHDR Leonid			KEPL MS																		
	SOHO MNVR			CHDR Earth Eclipse			SOHO MNVR			NHPC REX and Hibernation Re-Entry			VGR2 MAGROL			SOHO MNVR			CHDR Earth Eclipse			SOHO MNVR			SOHO KH			SOHO MNVR																								
	NHPC C&D S/W Load			NHPC Hibernation Exit			JUNO ME Flush			JUNO EFB DDOR			JUNO EFB			NHPC Hibernation Re-Entry																																				
	MRO MSL Relay												MSL Surface Ops																																							
	NHPC Solar Conj			VGR1 L3 PB			NHPC Checkout			GSSR Ast 1998 FW4			NHPC Checkout																																							
	NHPC Hibernation Exit			VGR2 ASCAL/MAGROL			NHPC Autonomy Load			NHPC 2TWTA			NHPC Hibernation Re-Entry			NHPC Hibernation Exit																																				
	NHPC Checkout			CAS Saturn Atm Occ			VGR1 L3 PB			CAS Saturn Occ			CAS Saturn			NHPC Maneuver			GSSR Ast 2002 NV16			NHPC MNVR																														
	NHPC MNVR			CAS TITAN Gravity Obs			VGR2 MAGROL NHPC Enc Rehearsal			CAS Saturn Rings Egress Occ			VGR1 L3 PB																																							
	CAS Saturn Rings Occ			CAS Saturn Atm Occ			CAS Saturn			GSSR Ast 1999 CF9			GSSR Ast 2002 QA22			GSSR Ast 2001 AV43																																				
	CAS Saturn Rings/Atm Occ			CAS RHEA Gravity Obs			CAS Saturn Atm Occ			CAS TITAN Flyby			GSSR Ast 1998 ML14			CAS TITAN Flyby																																				
	CAS Saturn Atm Occ			CAS TITAN Flyby			CAS TITAN Flyby			CAS TITAN Flyby			CAS TITAN Flyby			CAS TITAN Flyby																																				
Key Project Events Legend: ■ Level 1 ■ Level 2 ■ Level 3 ■ All Others																																																				
GDSCC	Complex Wide Power Cutover					D24 AZ Track Replacement					D15 Maser Replacement																																									
	Complex NMC Automated Link Build					Complex Wide Power Cutover					Complex Wide Power Cutover																																									
	Complex Wide ARC-Flash Testing					Complex Wide Power Cutover					Complex NMC Automated Link Build																																									
	Complex Wide Power Cutover					Complex Wide Power Cutover					Complex NMC Automated Link Build																																									
CDSCC	Complex Wide Powerhouse Commission					Complex Wide Powerhouse Commission					Complex Wide Powerhouse Commission																																									
	Complex Wide Powerhouse Commission - Proposed					Complex Wide Powerhouse Commission - Proposed					Complex Wide Powerhouse Commission - Proposed																																									
	D43 HBA Upgrade					D43 Maser Replacement - NIB					D35 Modkit Inventory/Installation/Checkout																																									
	D43 Maser Replacement - NIB					D34, 43, 45 Antenna Inspection					D35 Subsystem Acceptance Testing																																									
MDSCC	Complex Wide Powerhouse Commission - Proposed					VGR2 Proof of Performance					D55 Antenna Controller Replacement - Proposed																																									
	D54 AZ Track Replacement/ACR					D63 Grouting					Complex Wide Power Cutover																																									
	Complex Wide Power Cutover					Complex Wide Power Cutover					Complex Wide Power Cutover																																									
	Complex Wide Power Cutover					Complex Wide Power Cutover					Complex Wide Power Cutover																																									

Revised: January 7, 2013



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

- ❑ SPC-60 requests six 10 hour blocks of complex wide downtime for Power Cutover from January – June of 2013
 - ❑ Downtimes are scheduled for the following weeks
 - ❑ Weeks 22, 26, 31, 34, 39, 44 – prime shift hours are requested but not necessary.

- ❑ SPC-10 requests seven 12-hour blocks of complex wide downtime for G86 Power Cutover and two 12-hour block of downtime for Power Robustness in 2013
 - ❑ G86 Power cutover downtimes are scheduled **during maintenance blocks**
 - ❑ Weeks 08, 12, 17, 22, 25, 28, 37, and 46 – Day shift requested
 - ❑ The week 8 downtime has been changed to ARC-FLASH TESTING
 - ❑ Power Robustness is scheduled for the following week
 - ❑ Week 23 – 2 12-hour days, daylight hours only

- ❑ SPC-10 requests seven 6 – 8 hour complex wide downtime for NMC Automated Link Build (ALB) activities in 2013
 - ❑ Requested for March - October
 - ❑ Scheduled for weeks 10, 12, 15, 24, 32, 38, 42

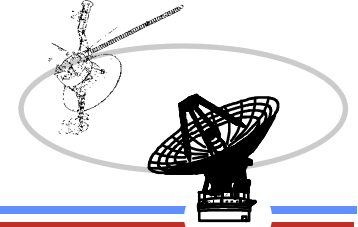
- ❑ **DSS- 27 request 2 days of downtime for Diplexer Replacement for 2013**
 - ❑ **Scheduled for March 4, week 12**



JPL

Jet Propulsion Laboratory
California Institute of Technology

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



2013 Downtimes (cont.)

- SPC-40 request a total of 12 blocks of 3 hours each, complex downtime for Power House Commission in 2013. The following weeks are scheduled
 - Four blocks, 3 hours each, 2 consecutive blocks each in weeks 3 and 4
 - Five blocks, 3 hours each in May, split between weeks 21 and 22
 - Two blocks, 3 hours each in June, week 25
 - Added three additional 3 hour blocks in February, week 09, the station also requested two additional blocks of time in April, week 14

- SPC-40 antenna for inspection in 2013
 - Scheduled for Weeks 19 and 20

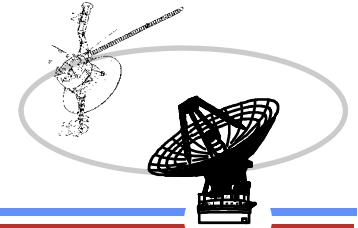
- BWG Antenna Controller Replacement for 2013
 - DSS-55 is scheduled for June 10 – July 11, weeks 24 – 28

- DSS-15 Maser and S-Band Transmitter Replacement is requested for 2013
 - Seventy seven days are scheduled for August 5, – October 26, weeks 32 – 43, date and weeks changed to better optimize the downtime prior to MAVEN launch



Jet Propulsion Laboratory
California Institute of Technology

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



2013 – 2014 Downtimes

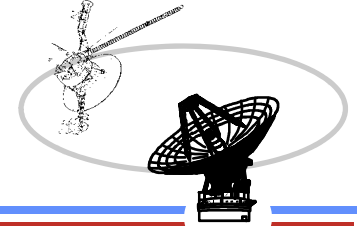
- DSS-63 downtime for Grouting 2013 - 2014
 - Scheduled for July 15 – August 2, weeks 29 – 31, 2013
 - Requesting 2 additional groutings in 2014 to replace HBA Upgrade and Life Extension
 - Proposed for 4 weeks each in March, weeks 10 – 13
 - Proposed for 4 weeks in November, weeks 45 – 48.
 - S-Band Maser Replacement will be NIB

- AZ Track Replacement downtime is requested for DSS-24 and DSS-26
 - DSS-24 is scheduled for April 29, – July 12, 2013, weeks 18 – 28.
 - ZDD is required during this time
 - 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 NIB March 31 – May 18, weeks 14 – 20

- SPC-60 antenna for inspection in 2014
 - Proposed for weeks 12 and 13



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



Jet Propulsion Laboratory
California Institute of Technology

2014 Downtimes

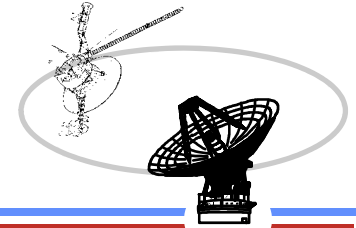
- DCD 4.1 downtime requested for software installation and SOAK for 2014
 - GDSCC and NOCC proposed for January 8, week 02
 - CDSCC is proposed for **January, week 03** and February week 08
 - MDSCC is proposed for **February, week 05** March week 10

- DSS-14 70M Tune-up request 2014**
 - Proposed for December, weeks 49 - 50



Jet Propulsion Laboratory
California Institute of Technology

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



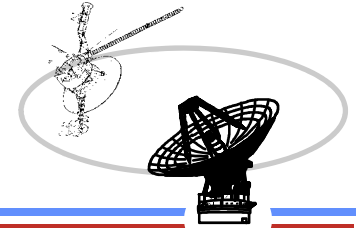
DSN Downtime 2013

2013							
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
SPC 40	Powerhouse Commission	01/14/2013 21:00	01/15/2013 00:00	0	03 - 03	14	15
SPC 40	Powerhouse Commission	01/15/2013 21:00	01/16/2013 00:00	0	03 - 03	15	16
SPC 40	Powerhouse Commission	01/21/2013 20:00	01/21/2013 23:00	0	04 - 04	21	21
SPC 40	Powerhouse Commission	01/22/2013 20:00	01/22/2013 23:00	0	04 - 04	22	22
SPC 10	ARC-Flash Testing	02/21/2013 15:00	02/22/2013 03:00	0	08 - 08	52	53
SPC 40	Powerhouse Commission	02/25/2013 09:10	02/25/2013 13:00	0	09 - 09	56	56
SPC 40	Powerhouse Commission	02/27/2013 08:35	02/27/2013 12:45	0	09 - 09	58	58
SPC 40	Powerhouse Commission	03/01/2013 09:05	03/01/2013 13:45	0	09 - 09	60	60
SPC 10	NMC Automated Link Build	03/07/2013 00:00	03/07/2013 08:00	0	10 - 10	66	66
SPC 10	Complex Power Cutover	03/20/2013 15:00	03/21/2013 03:00	0	12 - 12	79	80
SPC 10	NMC Automated Link Build	03/21/2013 00:00	03/21/2013 08:00	0	12 - 12	80	80
SPC 40	Powerhouse Commission	04/02/2013 21:00	04/03/2013 03:00	0	14 - 14	92	93
SPC 40	Powerhouse Commission	04/03/2013 21:00	04/04/2013 03:00	0	14 - 14	93	94
SPC 10	NMC Automated Link Build	04/10/2013 00:00	04/10/2013 08:00	0	15 - 15	100	100
SPC 10	Complex Power Cutover	04/24/2013 15:00	04/25/2013 03:00	0	17 - 17	114	115
DSS 24	AZ Track Replacement	04/29/2013 15:00	07/12/2013 00:00	73	18 - 28	119	193
DSS 43	Antenna Inspection	05/06/2013 22:00	05/07/2013 14:00	1	19 - 19	126	127
DSS 34	Antenna Inspection	05/07/2013 22:00	05/08/2013 14:00	1	19 - 19	127	128
DSS 45	Antenna Inspection	05/08/2013 22:00	05/09/2013 14:00	1	19 - 19	128	129
DSS 34	Antenna Inspection	05/14/2013 22:00	05/15/2013 06:00	0	20 - 20	134	135
DSS 45	Antenna Inspection	05/15/2013 22:00	05/16/2013 06:00	0	20 - 20	135	136
SPC 40	Powerhouse Commission	05/20/2013 21:00	05/21/2013 00:00	0	21 - 21	140	141



Jet Propulsion Laboratory
California Institute of Technology

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



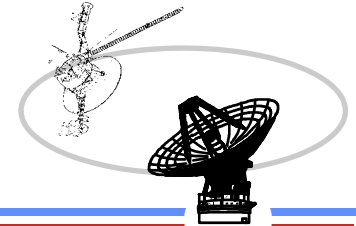
DSN Downtime 2013

2013							
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
SPC 40	Powerhouse Commission	05/21/2013 21:00	05/22/2013 00:00	0	21 - 21	141	142
SPC 40	Powerhouse Commission	05/22/2013 21:00	05/23/2013 00:00	0	21 - 21	142	143
SPC 40	Powerhouse Commission	05/27/2013 21:00	05/28/2013 00:00	0	22 - 22	147	148
SPC 10	Complex Power Cutover	05/28/2013 15:00	05/29/2013 03:00	0	22 - 22	148	149
SPC 40	Powerhouse Commission	05/28/2013 21:00	05/29/2013 00:00	0	22 - 22	148	149
DSS 54	Complex Power Cutover	05/29/2013 05:00	05/29/2013 17:00	0	22 - 22	149	149
DSS 55	Complex Power Cutover	05/29/2013 05:00	05/29/2013 17:00	0	22 - 22	149	149
DSS 63	Complex Power Cutover	05/29/2013 05:00	05/29/2013 17:00	0	22 - 22	149	149
DSS 65	Complex Power Cutover	05/29/2013 05:00	05/29/2013 17:00	0	22 - 22	149	149
SPC 10	Power Robustness	06/03/2013 15:00	06/04/2013 03:00	0	23 - 23	154	155
SPC 10	Power Robustness	06/04/2013 15:00	06/05/2013 03:00	0	23 - 23	155	156
DSS 55	Antenna Controller Replacement - Proposed	06/10/2013 05:00	07/12/2013 17:00	32	24 - 28	161	193
SPC 10	NMC Automated Link Build	06/11/2013 00:00	06/11/2013 08:00	0	24 - 24	162	162
SPC 40	Powerhouse Commission	06/17/2013 21:00	06/18/2013 00:00	0	25 - 25	168	169
SPC 40	Powerhouse Commission	06/18/2013 21:00	06/19/2013 00:00	0	25 - 25	169	170
SPC 10	Complex Power Cutover	06/19/2013 15:00	06/20/2013 03:00	0	25 - 25	170	171
SPC 40	Powerhouse Commission	06/19/2013 21:00	06/20/2013 00:00	0	25 - 25	170	171
DSS 54	Complex Power Cutover	06/27/2013 05:00	06/27/2013 17:00	0	26 - 26	178	178
DSS 55	Complex Power Cutover	06/27/2013 05:00	06/27/2013 17:00	0	26 - 26	178	178
DSS 63	Complex Power Cutover	06/27/2013 05:00	06/27/2013 17:00	0	26 - 26	178	178
DSS 65	Complex Power Cutover	06/27/2013 05:00	06/27/2013 17:00	0	26 - 26	178	178
SPC 10	Complex Power Cutover	07/10/2013 15:00	07/11/2013 03:00	0	28 - 28	191	192



Jet Propulsion Laboratory
California Institute of Technology

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



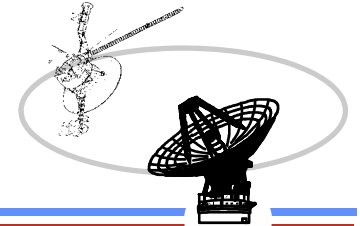
DSN Downtime 2013

2013							
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 63	Grouting	07/15/2013 06:00	08/02/2013 17:00	18	29 - 31	196	214
SPC 60	Complex Power Cutover	07/31/2013 05:00	07/31/2013 17:00	0	31 - 31	212	212
SPC 10	NMC Automated Link Build	08/05/2013 00:00	08/05/2013 08:00	0	32 - 32	217	217
DSS 15	250W S-Band - NIB	08/05/2013 15:00	10/26/2013 00:00	81	32 - 43	217	299
DSS 15	Maser Replacement	08/05/2013 15:00	10/26/2013 00:00	81	32 - 43	217	299
SPC 60	Complex Power Cutover	08/22/2013 05:00	08/22/2013 17:00	0	34 - 34	234	234
SPC 10	Complex Power Cutover - Proposed	09/10/2013 15:00	09/11/2013 03:00	0	37 - 37	253	254
SPC 10	NMC Automated Link Build	09/19/2013 00:00	09/19/2013 08:00	0	38 - 38	262	262
DSS 54	Complex Power Cutover	09/26/2013 05:00	09/26/2013 17:00	0	39 - 39	269	269
DSS 55	Complex Power Cutover	09/26/2013 05:00	09/26/2013 17:00	0	39 - 39	269	269
DSS 63	Complex Power Cutover	09/26/2013 05:00	09/26/2013 17:00	0	39 - 39	269	269
DSS 65	Complex Power Cutover	09/26/2013 05:00	09/26/2013 17:00	0	39 - 39	269	269
SPC 10	NMC Automated Link Build - SOAK	10/17/2013 00:00	10/17/2013 08:00	0	42 - 42	290	290
DSS 54	Complex Power Cutover	10/31/2013 05:00	10/31/2013 17:00	0	44 - 44	304	304
DSS 55	Complex Power Cutover	10/31/2013 05:00	10/31/2013 17:00	0	44 - 44	304	304
DSS 63	Complex Power Cutover	10/31/2013 05:00	10/31/2013 17:00	0	44 - 44	304	304
DSS 65	Complex Power Cutover	10/31/2013 05:00	10/31/2013 17:00	0	44 - 44	304	304
SPC 10	Complex Power Cutover	11/13/2013 15:00	11/14/2013 03:00	0	46 - 46	317	318



Jet Propulsion Laboratory
California Institute of Technology

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



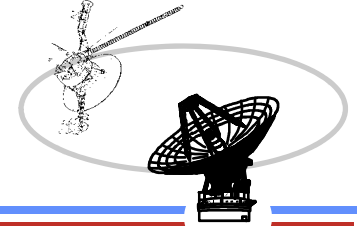
DSN Downtime 2014

2014							
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
GCF 20	DCD 4.1 - Proposed	01/08/2014 23:10	01/09/2014 05:10	0	02 - 02	8	9
SPC 10	DCD 4.1 - Proposed	01/08/2014 23:10	01/09/2014 05:10	0	02 - 02	8	9
SPC 40	NMC Automated Link Build - SOAK Proposed	01/15/2014 21:00	01/16/2014 05:00	0	03 - 03	15	16
SPC 60	NMC Automated Link Build - SOAK Proposed	01/29/2014 06:00	01/29/2014 14:00	0	05 - 05	29	29
SPC 40	DCD 4.1 - Proposed	02/20/2014 23:00	02/21/2014 05:00	0	08 - 08	51	52
DSS 63	Grouting - Proposed	03/03/2014 06:00	03/28/2014 17:00	25	10 - 13	62	87
SPC 60	DCD 4.1 - Proposed	03/06/2014 07:00	03/06/2014 13:00	0	10 - 10	65	65
DSS 26	RF Reconfiguration Prep - Proposed	03/10/2014 00:00	06/29/2014 00:00	111	11 - 26	69	180
DSS 55	Antenna Inspection - Proposed	03/17/2014 07:00	03/17/2014 23:00	1	12 - 12	76	76
DSS 65	Antenna Inspection - Proposed	03/18/2014 07:00	03/18/2014 23:00	1	12 - 12	77	77
DSS 63	Antenna Inspection - Proposed	03/19/2014 07:00	03/19/2014 23:00	1	12 - 12	78	78
DSS 54	Antenna Inspection - Proposed	03/20/2014 07:00	03/20/2014 23:00	1	12 - 12	79	79
DSS 55	Antenna Inspection - Proposed	03/24/2014 07:00	03/24/2014 15:00	0	13 - 13	83	83
DSS 65	Antenna Inspection - Proposed	03/25/2014 07:00	03/25/2014 15:00	0	13 - 13	84	84
DSS 54	Antenna Inspection - Proposed	03/26/2014 07:00	03/26/2014 15:00	0	13 - 13	85	85
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 63	Grouting - Proposed	11/03/2014 06:00	11/28/2014 17:00	25	45 - 48	307	332
DSS 63	S-Band Maser Replacement - NIB	11/03/2014 06:00	11/28/2014 17:00	25	45 - 48	307	332
DSS 14	70M Tune-up/Calibration - Proposed	12/01/2014 15:00	12/14/2014 00:00	12	49 - 50	335	348



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 2015 – 2018

- Maser Replacement has been requested
 - DSS-65 is proposed for August – November 2015 weeks 34 – 43
 - DSS-45 is proposed for April – June 2016 weeks 16 – 25

- SPC-10 antenna for inspection in 2015
 - Proposed for weeks 19 and 20

- SPC- 40 antenna for inspection in 2016
 - Proposed for weeks 18 and 19

- AZ Track Replacement
 - DSS-55 Proposed for January - May 2015 weeks 03 – 18
 - 80kW will be NIB
 - RF reconfiguration prep will be NIB
 - DSS-25 is proposed for January 29 – April 08, 2018, weeks 05 – 14
 - XX/Ka Installation will be NIB

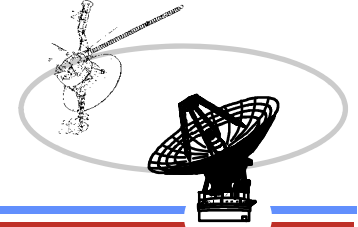
- DSS-43 70M Tune-up for 2015
 - Proposed for weeks 11-12



JPL

Jet Propulsion Laboratory
California Institute of Technology

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



Antenna Downtime Status and Forecast

2015 – 2018 Downtimes cont.

- ❑ **DSS-63 grouting and 70M Tune-up 2015 - 2016**
 - ❑ 2015 grouting proposed for May, weeks 19-20
 - ❑ DSS-63 70M tune-up will be NIB
 - ❑ 2015 grouting proposed for August, week 32 - 33.
 - ❑ 2016 grouting proposed for May, weeks 18-21
 - ❑ 2016 grouting proposed for November, weeks 44-47

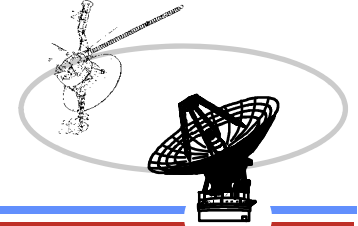
- ❑ **DSS-65 Maser Replacement for 2015**
 - ❑ Proposed for August – October weeks 34 – 43

- ❑ **SPC-40 request three twelve-hour downtimes for UPS Installation in 2016**
 - ❑ Proposed February and March, weeks 05, 07, 09

- ❑ **HEF Transmitter Replacement**
 - ❑ DSS-15 Proposed for July 11 – September 12, 2016 weeks, 28 – 39
 - ❑ DSS-45 Proposed for May 15 – August 7, 2017, weeks, 20 – 31
 - ❑ DSS-65 Proposed for **September 11 – December 1, 2017, weeks 37 – 48**



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



Jet Propulsion Laboratory
California Institute of Technology

2015 – 2018 Downtimes cont.

- DSS-63 HBA Upgrade and Life Extension downtime is requested for 2017
 - Proposed for weeks 05 - 36
 - Maser Replacement is scheduled NIB

- SPC-60 Antenna Inspections for 2017
 - Proposed for September, weeks 35 and 36

- DSS-25 AZ Track Replacement for 2018
 - Proposed for January 29 – April 9, weeks 05 – 15
 - XX/Ka Installation will be NIB

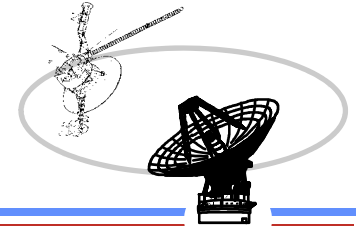
- DSS-54 Pedestal Rehab for 2018
 - Proposed for February – October, weeks 05 - 43

- DSS-24 XX/Ka Installation requested for 2018
 - Proposed for April 30 – July 9, weeks 18 – 27



Jet Propulsion Laboratory
California Institute of Technology

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



DSN Downtime 2015

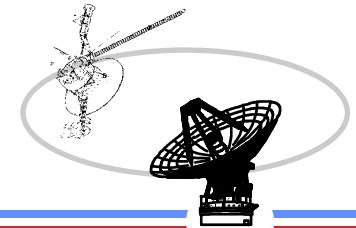
2015							
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 55	80 kW Facility Prep - NIB	01/12/2015 00:00	05/03/2015 00:00	111	03 - 18	12	123
DSS 55	AZ Track Replacement - Proposed	01/12/2015 00:00	05/03/2015 00:00	111	03 - 18	12	123
DSS 55	RF Reconfiguration Prep - Proposed	01/12/2015 00:00	05/03/2015 00:00	111	03 - 03	12	123
DSS 43	70m Tune-up/Calibration - Proposed	03/08/2015 21:00	03/20/2015 06:00	11	10 - 12	67	79
DSS 63	70m Tune-up/Calibration - NIB	05/04/2015 06:00	05/17/2015 17:00	13	19 - 20	124	137
DSS 63	Grouting - Proposed	05/04/2015 06:00	05/17/2015 17:00	13	19 - 20	124	137
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 - Proposed	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 63	Grouting - Proposed	08/03/2015 05:00	08/16/2015 17:00	14	32 - 33	215	228
DSS 65	Maser Replacement - Proposed	08/17/2015 06:00	10/25/2015 17:00	69	34 - 43	229	298



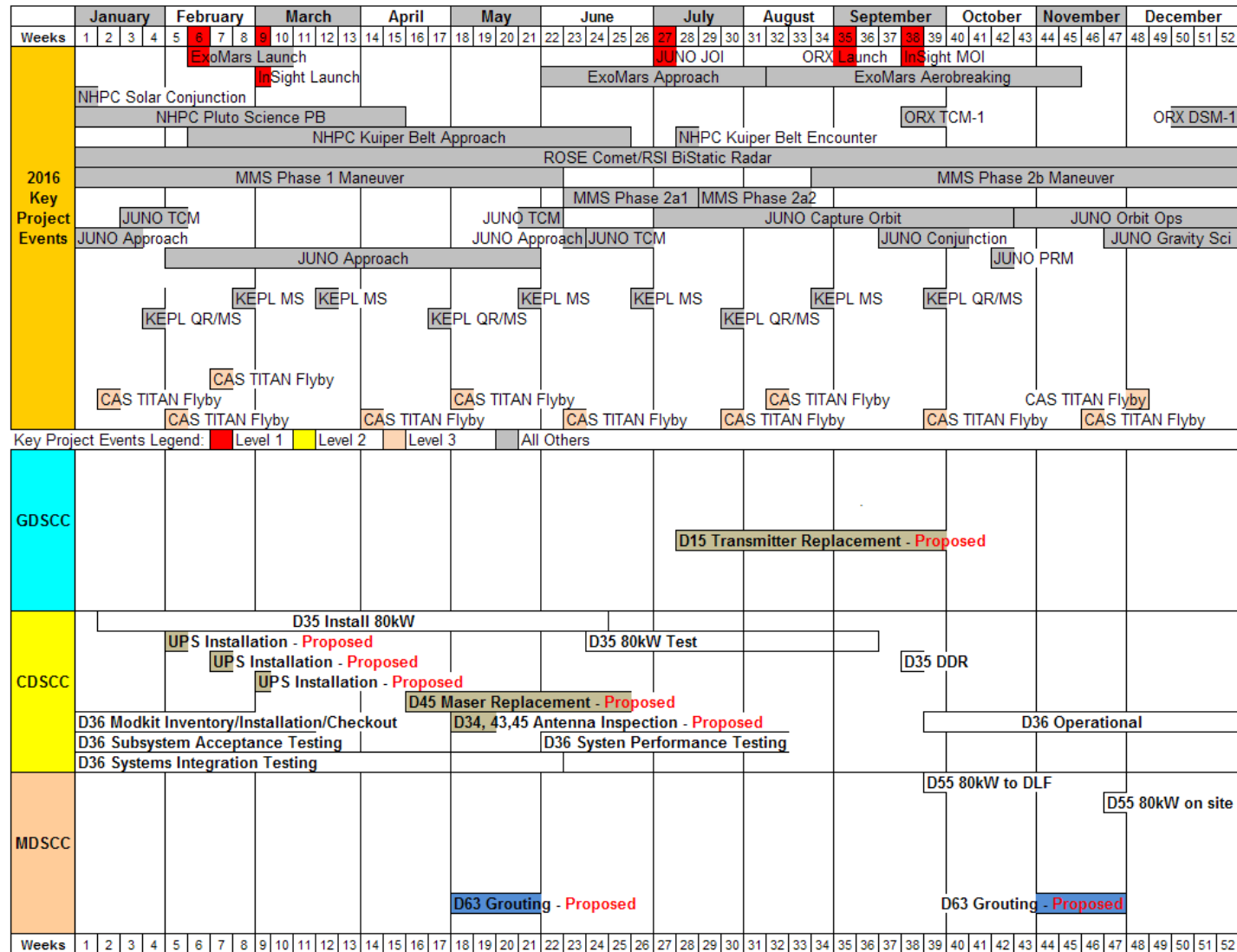
JPL

Jet Propulsion Laboratory
California Institute of Technology

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



- 2016 -

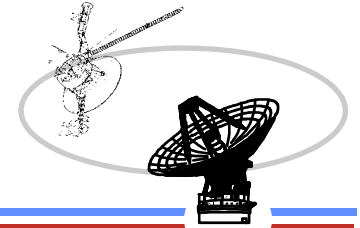


Revised: January 7, 2013



Jet Propulsion Laboratory
California Institute of Technology

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



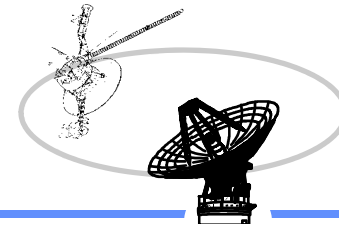
DSN Downtime 2016

2016							
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
SPC 40	UPS Installation - Proposed	02/03/2016 21:00	02/04/2016 09:00	0	05 - 05	34	35
SPC 40	UPS Installation - Proposed	02/17/2016 21:00	02/18/2016 09:00	0	05 - 07	48	49
SPC 40	UPS Installation - Proposed	03/02/2016 21:00	03/03/2016 09:00	0	09 -09	62	63
DSS 45	Maser Replacement - Proposed	04/18/2016 21:00	06/26/2016 06:00	68	16 - 25	109	178
DSS 63	Grouting - Proposed	05/02/2016 06:00	05/29/2016 17:00	27	18 - 21	123	150
DSS 43	Antenna Inspection - Proposed	05/02/2016 22:00	05/03/2016 14:00	1	18 - 18	123	124
DSS 34	Antenna Inspection - Proposed	05/03/2016 22:00	05/04/2016 14:00	1	18 - 18	124	125
DSS 45	Antenna Inspection - Proposed	05/04/2016 22:00	05/05/2016 14:00	1	18 - 18	125	126
DSS 43	Antenna Inspection - Proposed	05/09/2016 22:00	05/10/2016 06:00	0	19 - 19	130	131
DSS 34	Antenna Inspection - Proposed	05/10/2016 22:00	05/11/2016 06:00	0	19 - 19	131	132
DSS 15	Transmitter Replacement - Proposed	07/11/2016 00:00	10/03/2016 00:00	84	28 - 40	193	277
DSS 63	Grouting - Proposed	10/31/2016 06:00	11/25/2016 17:00	25	44 - 47	305	330



Jet Propulsion Laboratory
California Institute of Technology

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



- 2017 -

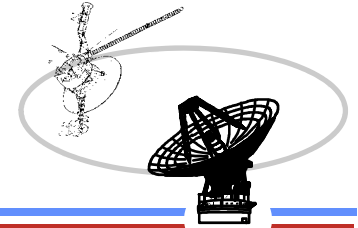
	January				February				March				April				May				June				July				August				September				October				November				December							
Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
2017 Key Project Events	ORX DSM-1				MMS Disposal				MMS Phase 2b Maneuver				JUNO Orbit Ops/Gravity Sci				CAS TITAN Flyby				ORX DSM-1				ORX EGA				JUNO Deorbit																							
	Key Project Events Legend: ■ Level 1 ■ Level 2 ■ Level 3 ■ All Others																																																			
	GDSCC																																																			
	CDSCC																																																			
	MDSCC																																																			
D55 Install 80kW																																																				
D55 Test 80kW																																																				
D54,55,63, 65 Antenna Inspection - Proposed																																																				
D63 HBA Upgrades & Life Extension - Proposed																																																				
D63 Maser Replacement - NIB																																																				
D65 Transmitter Replacement - Proposed																																																				
D45 Transmitter Replacement - Proposed																																																				
D55 DDR																																																				

Revised: January 8, 2013



Jet Propulsion Laboratory
California Institute of Technology

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

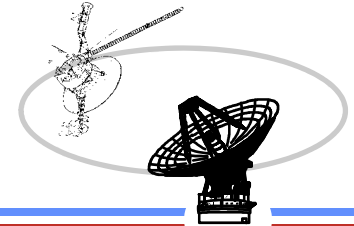


DSN Downtime 2017

2017							
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 63	HBA Upgrade and Life Extension - Proposed	01/30/2017 06:00	09/08/2017 17:00	221	05 - 36	30	251
DSS 63	Maser Replacement - NIB	01/30/2017 06:00	09/08/2017 17:00	221	05 - 36	30	251
DSS 45	Transmitter Replacement - Proposed	05/15/2017 00:00	08/07/2017 00:00	84	20 - 32	135	219
DSS 55	Antenna Inspection - Proposed	08/28/2017 07:00	08/28/2017 23:00	1	35 - 35	240	240
DSS 65	Antenna Inspection - Proposed	08/29/2017 07:00	08/29/2017 23:00	1	35 - 35	241	241
DSS 63	Antenna Inspection - Proposed	08/30/2017 07:00	08/30/2017 23:00	1	35 - 35	242	242
DSS 54	Antenna Inspection - Proposed	08/31/2017 07:00	08/31/2017 23:00	1	35 - 35	243	243
DSS 55	Antenna Inspection - Proposed	09/04/2017 07:00	09/04/2017 15:00	0	36 - 36	247	247
DSS 63	Antenna Inspection - Proposed	09/05/2017 07:00	09/05/2017 15:00	0	36 - 36	248	248
DSS 54	Antenna Inspection - Proposed	09/07/2017 07:00	09/07/2017 15:00	0	36 - 36	250	250
DSS 65	Transmitter Replacement - Proposed	09/11/2017 06:00	12/01/2017 17:00	81	37 - 48	254	335

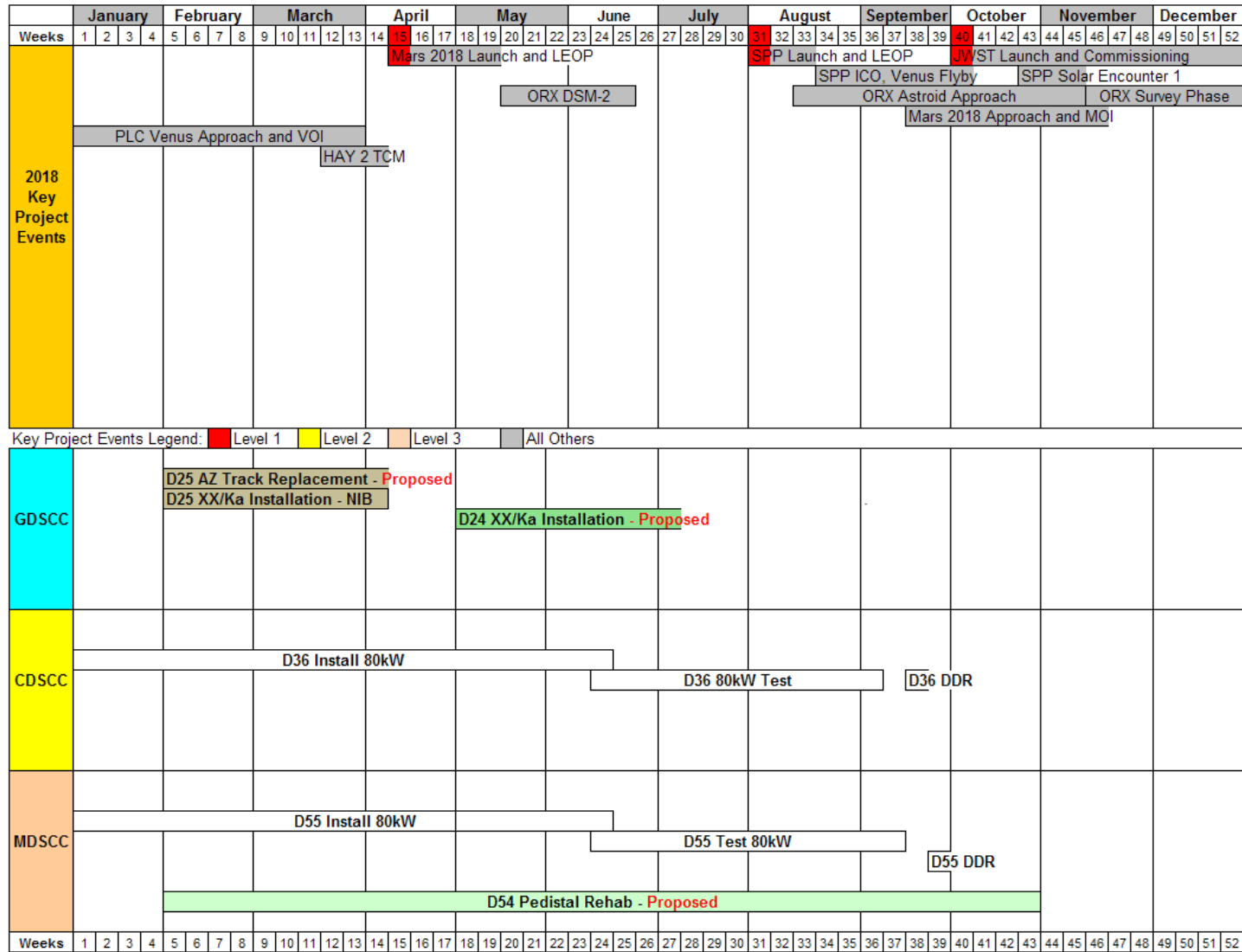


Interplanetary Network Directorate (IND) Deep Space Network (DSN) Resource Allocation Planning Service



Jet Propulsion Laboratory
California Institute of Technology

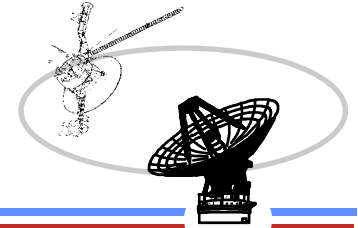
- 2018 -



Revised: January 8, 2013



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



Jet Propulsion Laboratory
 California Institute of Technology

DSN Downtime 2018

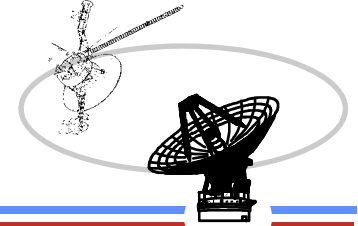
2018							
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 25	AZ Track Replacement - Proposed	01/29/2018 00:00	04/09/2018 00:00	70	05 - 15	29	99
DSS 25	XX/Ka Installation - NIB	01/29/2018 00:00	04/09/2018 00:00	70	05 - 13	29	99
DSS 54	Pedestal Rehab	01/29/2018 06:00	10/26/2018 17:00	270	05 - 43	29	299
DSS 24	XX/Ka Installation - Proposed	04/30/2018 00:00	07/09/2018 00:00	70	18 - 28	120	190



JPL

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

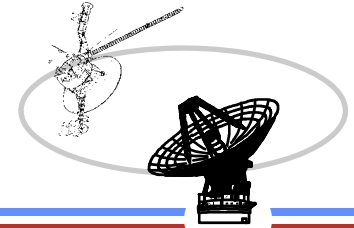
- ❑ DSS-35 80kW Installation 2016 – A placeholder has been set awaiting dates

- ❑ 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



Jet Propulsion Laboratory
California Institute of Technology

Antenna Downtime Status and Forecast

DSN Resource Implementation Planning Matrix by Subnet

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	TBD
10	DSS-26	34B2	N/A	N/A	✓	✓	✓	N/A	N/A	N/A	10/01/15
40	DSS-33*	34B2	N/A	N/A	10/01/19	10/01/19	10/01/19	N/A	N/A	N/A	TBD
40	DSS-35*	34B2	N/A	N/A	09/29/14	09/29/14	09/29/14	N/A	N/A	N/A	10/01/16
40	DSS-36*	34B2	N/A	N/A	09/26/16	09/26/16	09/26/16	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
60	DSS-56*	34B2	N/A	N/A	09/28/20	09/28/20	09/28/20	N/A	N/A	N/A	TBD
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 = Not Applicable or Capability Not Planned xx/xx/xx = Capability Date Recently Changed As of: 11/28/2012
 ✓✓✓ = Capability Recently Exists ✓ = Capability Exists * = To Be Commissioned