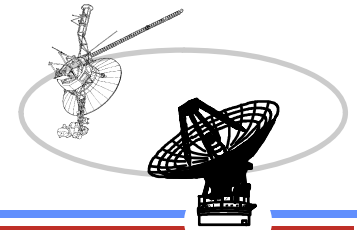
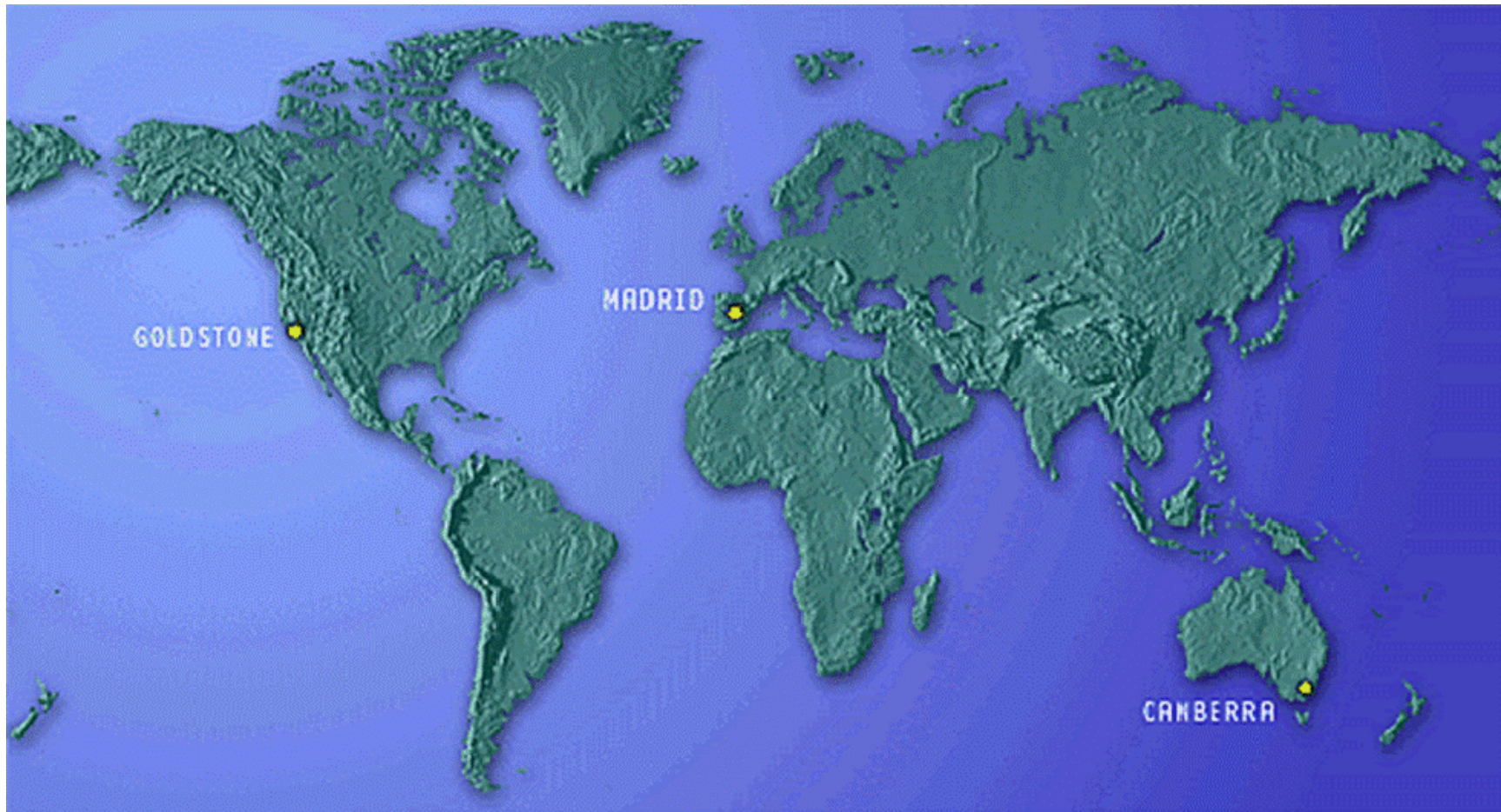




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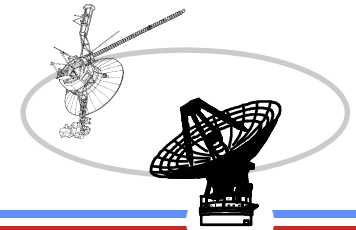


## DSN Antenna Downtime Status and Forecast





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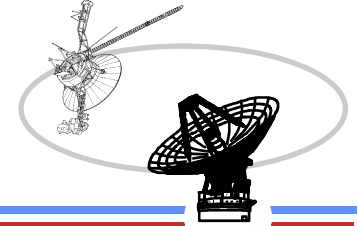
- 2011 -

	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
2011 Key Project Events	SDU Tempel Enc								MSGR MOI				July 1 ACP Begins								THC LOI				JUNO Launch				GRAIL Launch/TCM				DAWN Vesta Arrival				MSGR Launch & TCM				GRAIL-A/B LOI											
	SDU Approach				SDU Post Enc Imaging				DAWN Vesta Approach				Vesta Orbit Survey				HAMO				DAWN Vesta Orbit LAMO																															
	CHDR Dark Current				CHDR Dark Current				CHDR Dark Current				CHDR Lunar Eclipse				CHDR Lunar Eclipse				CHDR Dark Current				CHDR Earth Eclipse				CHDR Draconid Pass																							
	KEPL Monthly Sci.				DAWN Inst CO				KEPL Monthly Sci.				KEPL Monthly Sci.				KEPL Monthly Sci.				KEPL Monthly Sci.				KEPL Monthly Sci.				KEPL Monthly Sci.				KEPL Monthly Sci.																			
	KEPL Monthly Sci.				KEPL Qtrly. Roll				VEX Drag Pass				KEPL Qtrly. Roll				KEPL Qtrly. Roll				KEPL Qtrly. Roll				KEPL Qtrly. Roll				KEPL Qtrly. Roll																							
	SOHO Keyhole				SOHO Keyhole MNVR				STF HD149026 OBSV				STF GJ1214 OBSV				SOHO Keyhole MNVR				SOHO Keyhole				SOHO Keyhole MNVR				GSSR Ast 2005 YU55																							
	SOHO MNVR				WIND TCM				SOHO Keyhole				WIND TCM				WIND TCM				VEX Drag Pass				SOHO Keyhole				WIND TCM																							
	MSGR TCM				MSGR TCM				MSGR TCM				MSGR TCM				MSGR TCM				MSGR TCM				MSGR TCM				MSGR TCM																							
	NHPC Maneuver				NHPC Checkout				NHPC Checkout				NHPC Checkout				NHPC Checkout				CAS ENCELADUS Flyby				CAS ENCELADUS Flyby				CAS DIONE Flyby																							
	ROSE Rendezvous Maneuver				CAS TITAN Flyby				CAS TITAN Flyby				CAS TITAN Flyby				CAS TITAN Flyby				CAS TITAN Flyby				CAS ENCELADUS Flyby				NHPC Maneuver				NHPC Solar Conj																			
CAS RHEA Flyby				CAS TITAN Flyby				CAS TITAN Flyby				CAS TITAN Flyby				STF HD147506				CAS TITAN Flyby				CAS ENCELADUS Flyby				GSSR Asteroid 2000 YA																								
GDSCC	D15 Pintle Bearing				D15 Gear Box Replace -NIB				D24 Antenna Controller Replacement				Cable Wrap Protection -NIB				D27 Antenna Controller Replacement				250 Watt S-Band Install -NIB				Cable Wrap Protection -NIB				D25 Preliminary Design Review Test				D15 Uplink/Transmitter Calibration - Proposed				D25 Antenna Controller Replacement - Proposed				Cable Wrap Protection -NIB											
	DPS Power Upgrade				DPS Power Upgrade				DPS Power Upgrade				DPS Power Upgrade				DPS Power Upgrade				DPS Power Upgrade				DPS Power Upgrade				DPS Power Upgrade				DPS Power Upgrade				DPS Power Upgrade															
	DPS Power Upgrade				DPS Power Upgrade				DPS Power Upgrade				DPS Power Upgrade				DPS Power Upgrade				DPS Power Upgrade				DPS Power Upgrade				DPS Power Upgrade				DPS Power Upgrade																			
CDSCC	D45 Heat Exchanger Level Switch Replacement				D45 Uplink/Transmitter Calibration				NMC Install				NMC Install				DPS Maintenance				DPS Maintenance				DPS Maintenance				DPS Maintenance				DPS Maintenance																			
	NMC Install				NMC Install				NMC Install				NMC Install				NMC Install				NMC Install				NMC Install				NMC Install				NMC Install																			
	D34 Heat Exchanger Level Switch Replacement - NIB				Sub Reflector Position Transducer Replacement - NIB				Cable Wrap Protection - NIB				DPS Maintenance				DPS Maintenance				DPS Maintenance				DPS Maintenance				DPS Maintenance																							
MDSCC	NMC Install				NMC Install				NMC Install				NMC Install				NMC Install				NMC Install				NMC Install				NMC Install				NMC Install																			
	D63 DLM				D63 GROUTING -NIB				D54 Sub Reflector Position Transducer Replacement				D55 Sub Reflector Position Transducer Replacement				D65 Uplink/Transmitter Calibration				D65 Chiller Replacement				D65 Chiller Replacement - Proposed				D65 Chiller Replacement - Proposed																							
	D63 GROUTING -NIB				D63 GROUTING -NIB				D63 GROUTING -NIB				D63 GROUTING -NIB				D63 GROUTING -NIB				D63 GROUTING -NIB				D63 GROUTING -NIB				D63 GROUTING -NIB																							

Revised: March 1, 2011



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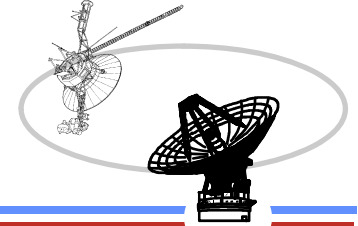


## DSN Downtime 2011

2011							
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 15	Gear Box Replacement-NIB	01/10/2011 00:00	03/20/2011 00:00	69	02 - 11	010	079
DSS 15	Pintle Bearing	01/10/2011 00:00	03/20/2011 00:00	69	02 - 11	010	079
SPC 40	NMC Installation	03/03/2011 07:45	03/03/2011 13:45	0	09 - 09	062	062
SPC 10	DPS Power Upgrade	03/06/2011 00:40	03/06/2011 10:50	0	09 - 09	065	065
SPC 60	NMC Installation	03/12/2011 21:15	03/13/2011 03:15	0	10 - 10	071	072
DSS 63	Depot Level Maintenance	04/04/2011 00:00	05/08/2011 23:10	35	14 - 18	094	128
DSS 63	Grouting - NIB	04/04/2011 00:00	05/08/2011 23:10	35	14 - 18	094	128
DSS 24	Cable Wrap Protection - NIB	04/11/2011 00:00	04/14/2011 00:00	3	15 - 15	101	104
DSS 24	Antenna Controller Replacement	04/11/2011 00:00	05/15/2011 00:00	34	15 - 19	101	135
SPC 10	NMC Installation	04/15/2011 03:00	04/15/2011 07:00	0	15 - 15	105	105
SPC 40	NMC Installation	05/15/2011 08:55	05/15/2011 11:30	0	19 - 19	135	135
DSS 45	Uplink/Transmitter Cal	05/16/2011 03:05	05/17/2011 15:05	2	20 - 20	136	137
DSS 54	Sub Reflector Position Transducer Replacement	05/17/2011 00:00	05/20/2011 00:00	3	20 - 20	137	140
DSS 45	Heat Exchange Level Switch Replacement	05/17/2011 15:05	05/19/2011 15:05	2	20 - 20	137	139
DSS 34	Cable Wrap Protection - NIB	05/23/2011 00:00	05/26/2011 00:00	3	21 - 21	143	146
DSS 34	Antenna Controller Replacement	05/23/2011 00:00	06/19/2011 00:00	27	21 - 24	143	170
DSS 34	Sub Reflector Position Transducer Replacement - NIB	05/23/2011 03:05	06/19/2011 00:00	27	21 - 24	143	170
DSS 34	Heat Exchange Level Switch Replacement - NIB	05/23/2011 14:00	06/19/2011 02:00	26	21 - 24	143	170
SPC 60	NMC Installation	05/28/2011 17:25	05/28/2011 20:10	0	21 - 21	148	148
DSS 25	Preliminary Design Review Test	05/31/2011 15:45	06/01/2011 01:45	0	22 - 22	151	152
DSS 25	Preliminary Design Review Test	06/01/2011 16:00	06/02/2011 01:00	0	22 - 22	152	153
DSS 25	Preliminary Design Review Test	06/02/2011 15:00	06/03/2011 01:00	0	22 - 22	153	154
DSS 25	Preliminary Design Review Test	06/03/2011 15:00	06/04/2011 01:00	0	22 - 22	154	155



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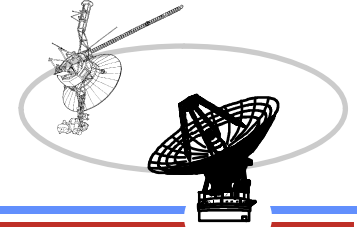
**DSN Downtime 2011 (Continued)**

2011							
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 55	Sub Reflector Position Transducer Replacement	06/07/2011 00:00	06/10/2011 00:00	3	23 - 23	158	161
SPC 40	DPS Maintenance	06/23/2011 20:00	06/24/2011 08:00	0	25 - 25	174	175
DSS 27	Cable Wrap Protection - NIB	06/27/2011 00:00	06/30/2011 00:00	3	26 - 26	178	181
DSS 27	250 Watt S-Band Install - NIB	06/27/2011 00:00	07/24/2011 00:00	27	26 - 29	178	205
DSS 27	Antenna Controller Replacement	06/27/2011 00:00	07/24/2011 00:00	27	26 - 29	178	205
SPC 40	DPS Maintenance	06/27/2011 20:00	06/28/2011 04:00	0	26 - 26	178	179
DSS 65	Uplink/Transmitter Cal	07/04/2011 05:00	07/05/2011 18:00	2	27 - 27	185	186
DSS 65	Chiller Replacement	07/06/2011 05:00	07/07/2011 05:00	1	27 - 27	187	188
DSS 65	Chiller Replacement - Proposed	07/18/2011 05:00	07/19/2011 05:00	1	29 - 29	199	200
SPC 40	DPS Maintenance	07/25/2011 20:00	07/26/2011 04:00	0	30 - 30	206	207
DSS 25	Cable Wrap Protection - NIB - Proposed	10/03/2011 00:00	10/06/2011 00:00	3	40 - 40	276	279
DSS 25	Antenna Controller Replacement - Proposed	10/03/2011 00:00	11/06/2011 00:00	34	40 - 44	276	310
SPC 40	DPS Maintenance	10/13/2011 20:00	10/14/2011 08:00	0	41 - 41	286	287
SPC 40	DPS Maintenance	10/24/2011 20:00	10/25/2011 08:00	0	43 - 43	297	298
SPC 40	DPS Maintenance	11/02/2011 20:00	11/03/2011 08:00	0	44 - 44	306	307
DSS 15	Uplink/Transmitter Cal	11/07/2011 15:00	11/09/2011 07:00	2	45 - 45	311	313
SPC 40	DPS Maintenance	11/10/2011 20:00	11/11/2011 08:00	0	45 - 45	314	315



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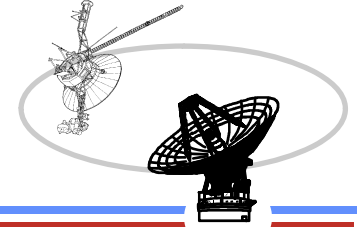
## Antenna Downtime Status and Forecast

The following are downtimes for 2011

- ❑ DSS-15 downtime for Pintle Bearing is in progress, beginning January 10 – March 20, weeks 02 – 11
  - ❑ Elevation Gearbox Replacement was completed
  - ❑ ZDD has been scheduled prior to return to service
- ❑ Goldstone 12-hour Complex Wide DPS Power Upgrade Downtime
  - ❑ Power Upgrade Task for January 31, DOY 31 week 05 was completed
  - ❑ Five additional days were completed in weeks 05, 06 and 08, February, 1, 4, 7, 9, 12, 25 and 28, DOYs 32, 35, 38, 40, 43, 56 and 59
  - ❑ Additional time is scheduled for week 09, March 6, DOY 65
- ❑ NMC 6-hour Complex Wide Downtime is scheduled at all complexes
  - ❑ Goldstone NMC Task
    - ❑ Additional hours have been scheduled for week 15, DOY 105
  - ❑ Canberra is scheduled for March 3 DOY 62, 0745 – 1345, week 09
    - ❑ Additional hours have been scheduled for week 19, DOY 135
  - ❑ Madrid is scheduled for March 12 DOY 71, 2115 – 0315, week 10
    - ❑ Additional hours have been scheduled for week 21, DOY 148



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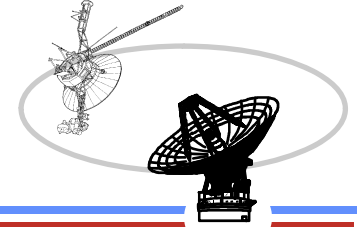
## Downtimes for 2011 (continued)

- ❑ DSS-63 downtime for Depot Level Maintenance is scheduled for April 4 – May 8, weeks 14 - 18
  - ❑ Grouting will be scheduled NIB
- ❑ HEF Uplink and Transmitter Calibration downtime is requested on each antenna for 36 hours in 2011
  - ❑ DSS-45 has been scheduled for May 16/17 DOYs 136/137, week 20. Maintenance will be NIB for 8 hours of the downtime
    - ❑ Downtime is scheduled for Heat Exchanger Level Switch Replacement DOYs 137 – 139 in week 20, following Uplink Transmitter Calibration
  - ❑ DSS-65 is proposed for week July 4/5, week 27, DOYs 185/186
    - ❑ Four additional 12-hour blocks are requested for chiller replacement
      - ❑ Two blocks of consecutive days are scheduled for week 27 DOYs 187 and 188
      - ❑ Two blocks of consecutive days are requested for week 29 DOYs 199 and 200
  - ❑ DSS-15 is proposed for week 45
- ❑ Canberra request for seven 8 – 12 hour blocks of Complex Wide DSCC Power Substation (DPS) Maintenance Downtime for April – September
  - ❑ Day shift (2000 – 0800) is requested but not required in weeks 25, 26, 30, 41, 43, 44 and 45
  - ❑ Weeks 26 and 30 are scheduled as 8 hour downtimes. The remainder of the downtimes are scheduled as 12 hours downtimes
  - ❑ There is a possibility that downtimes in weeks 41, 43, 44 and 45 may be affected by GRAIL if the launch slips into week 40.



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## Antenna Downtime Status and Forecast

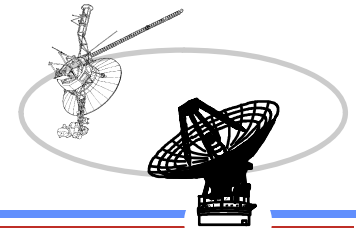
### Downtimes for 2011 (continued)

- ❑ BWG Antenna Controller Replacement is requested starting in April
  - ❑ DSS-24 is scheduled for April 11 – May 15, weeks 15 – 19
  - ❑ DSS-34 is scheduled for May 23 – June 19, weeks 21 – 24
    - ❑ Heat Exchanger Level Switch Replacement is scheduled NIB
    - ❑ Sub Reflector Position Transducer Replacement is scheduled NIB during these weeks
  - ❑ DSS-27 is scheduled for June 27 – July 24, weeks 26 – 29
    - ❑ 250 Watt S-Band Installation is scheduled NIB
    - ❑ Downtime will begin after THB LOI support on DOY 178. Additional time has been requested to mitigate the loss of time in week 26
  - ❑ DSS-25 is proposed for October 3 – November 6, weeks 40 – 44

Note: Cable Wrap Protection for each BWG ACR requires 3 days and will be NIB
- ❑ Sub Reflector Position Transducer Replacement is scheduled for May and June
  - ❑ DSS 54 is Scheduled for May 17 – 19, DOYs 137 – 139, week 20
  - ❑ DSS 55 is Scheduled for June 7 – 9, DOYs 158 – 160, week 23
- ❑ DSS-25 downtime requested for DSS-35 design review baseline testing no later than June 1
  - ❑ Requesting 4 10 hour blocks of contiguous testing
  - ❑ DSS-25 downtime is scheduled May 31 – June 3, DOYs 151 – 154, in week 22
  - ❑ Tracking will be available after testing is complete each day



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



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**- 2012 -**

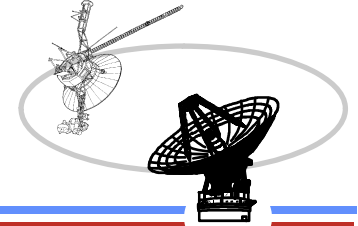
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Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52																																																																					
2012 Key Project Events	MSL INST C/O 1										MSL TCM										MSL TCM										MSL EDL																				DAWN Vesta Orbit										DAWN Vesta Depart										DAWN Vesta Coast																																																		
	MSL ENG C/O 1				MSL FS Checkout 2				MSL FSW Update				MSL ENG C/O 2				KEPL Qtrly. Roll/Sci				KEPL Monthly Sci.				KEPL Qtrly. Roll/Sci				KEPL Monthly Sci.				KEPL Monthly Sci.				KEPL Monthly Sci.				KEPL Monthly Sci.				KEPL Monthly Sci.				KEPL Monthly Sci.				KEPL Monthly Sci.																																																																				
	WIND TCM				KEPL Monthly Sci.				WIND TCM				KEPL Monthly Sci.				WIND TCM				KEPL Monthly Sci.				WIND TCM				KEPL Monthly Sci.				WIND TCM				GSSR Ast 2007 PA8				GSSR Ast Eros				JUNO DSMs DDOR				JUNO DSMs DDOR				JUNO DSMs/DDORs/TCMs				JUNO Per Maint																																																																
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	GRAIL A/B LOI/OPR/TSF												MSL TCM				MSL Approach				MSL Surface Ops																																																																																																				
	GSSR Ast 1991 VK								GRAIL A/B Science								VEX Drag Pass				MRO MSL Relay																																																																																																				
	NHPC Beacon										NHPC Checkout										NHPC Beacon																																																																																																				
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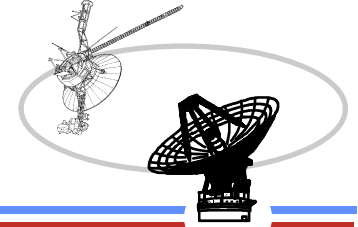
## DSN Downtime 2012

2012							
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 26	Cable Wrap Protection - NIB	03/12/2012 00:00:	03/15/2012 00:00:	3	11 - 11	072	075
DSS 26	Antenna Controller Replacement - Proposed	03/12/2012 00:00:	04/08/2012 00:00:	27	11 - 11	072	099
DSS 63	70m Tune-up/Calibration - NIB	05/07/2012 00:00:	05/27/2012 00:00:	20	19 - 21	128	148
DSS 63	Grouting - Proposed	05/07/2012 00:00:	05/27/2012 00:00:	20	19 - 21	128	148
DSS 14	70m Tune-up/Calibration - Proposed	05/28/2012 00:00:	05/31/2012 00:00:	3	22 - 22	149	152
DSS 25	Cable Wrap Protection - NIB	06/11/2012 00:00:	06/14/2012 00:00:	3	24 - 24	163	166
DSS 43	70m Tune-up/Calibration - NIB	06/11/2012 00:00:	06/26/2012 00:00:	15	24 - 26	163	178
DSS 43	Grouting - Proposed	06/11/2012 00:00:	06/26/2012 00:00:	15	24 - 26	163	178
DSS 25	Antenna Controller Replacement - Back-up Plan Proposed	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 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



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



## Antenna Downtime Status and Forecast

The following are downtimes for 2012 – 2014

- ❑ BWG Antenna Controller Replacement for 2012 – 2013
  - ❑ DSS-26 is proposed for March 12 – April 8, weeks 11 – 14
  - ❑ DSS-25 is proposed for June 11 – July 15, weeks 24 – 28
    - ❑ This is a backup for 2011 based on GRAIL launch schedule
  - ❑ DSS-54 is proposed for October 22 – November 25, weeks 43 – 47
  - ❑ DSS-55 is proposed for January 14 – February 17, 2013, weeks 03 – 07

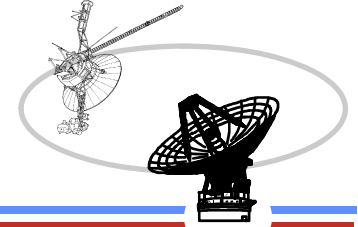
Note: Cable Wrap Protection for each BWG ACR requires 3 days and will be NIB
  
- ❑ DSS-63 downtime for Grouting is requested once per year
  - ❑ 2012 is proposed for May 7 – 27 , weeks 19 – 21
    - ❑ Tune-up/Calibration is requested NIB to grouting
  - ❑ 2013 is proposed for September 2 – 17, weeks 36 – 38

Note: Stand alone Grouting requires 15 days
  
- ❑ DSS-14 downtime for Tune-up/Calibration is requested for May 28 – 31, 2012, week 22
  
- ❑ DSS-43 downtime for Grouting is requested for 2012
  - ❑ Tune-up/Calibration is requested NIB to grouting
  - ❑ This is proposed for June 11 – June 25, weeks 24 – 26



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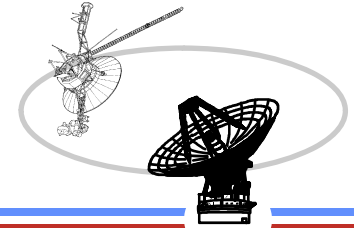
## Antenna Downtime Status and Forecast

The following are downtimes for 2012 – 2014 (continued)

- ❑ AZ Track Replacement is requested for DSS-54, 24 and 26 beginning in the fall of 2012. The following sequence is proposed
  - ❑ DSS-54 is proposed for September 10 – October 28, 2012, weeks 37 – 43
  - ❑ DSS-24 is proposed for April 22 – June 30, 2013, weeks 17 – 26
  - ❑ DSS-26 is proposed for March 31 – June 8, 2014 weeks 14 – 23
    - ❑ 80 kW Facility Preparation will be scheduled NIB March 31 – May 18, weeks 14 – 20
  
- ❑ DSS-43 HBA Upgrade Downtime is proposed for 2013
  - ❑ Proposed for January 7 – August 11, weeks 02 – 32
  - ❑ ZDD will be scheduled prior to return to service
  
- ❑ 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



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



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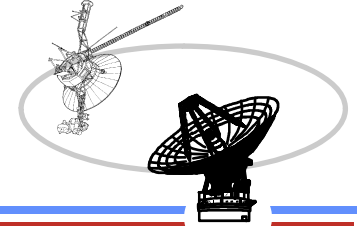
- 2013 -

	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														
<b>2013 Key Project Events</b>											LADEE Launch				LADEE LOI																				MAVEN Launch																															
											LIPF Launch																								MAVEN TCM																															
																																							MAVEN Cruise																											
											DAWN Forced Coast																												DAWN Ceres Thrst PB/TV																											
											WIND TCM								WIND TCM																				WIND TCM																											
											CHDR Dark Current								CHDR Dark Current																				CHDR Dark Current																											
											CHDR Earth Eclipse								CHDR Earth Eclipse																				CHDR Leonid																											
															JUNO Cruise																												JUNO Cruise																							
																							JUNO ME Flush																				JUNO EFB																							
																											MRO MSL Relay																				MRO MSL Surface Ops																			
<b>GDSCC</b>											NHPC Solar Conjunction																																				NHPC Checkout																			
											NHPC Checkout																																								NHPC Beacon															
											NHPC Maneuver																																								NHPC Maneuver															
															CAS RHEA Flyby																																				CAS TITAN Flyby															
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																																																															CAS TITAN Flyby			
	<b>CDSCC</b>																																																											D35 Modkit Installation						
										D43 HBA Upgrades & Life Extension - Proposed																																												D35 Acceptance Testing												
<b>MDSCC</b>											D55 Antenna Controller Replacement - Proposed																																																D63 GROUTING - Proposed							
											D55 Cable Wrap Protection - NIB																																																							

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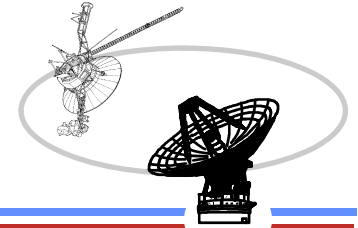


## DSN Downtime 2013

2013							
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 43	HBA Upgrades and Life Extension - Proposed	01/07/2013 00:00:	08/11/2013 00:00:	216	02 - 32	007	223
DSS 55	Cable Wrap Protection - NIB	01/14/2013 00:00:	01/17/2013 00:00:	3	03 - 03	014	017
DSS 55	Antenna Controller Replacement - Proposed	01/14/2013 00:00:	02/17/2013 00:00:	34	03 - 07	014	048
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



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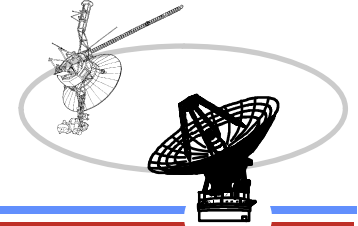
**- 2014 -**

	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																											
2014 Key Project Events																											JWST Launch				MAVEN Approach																				MMS Launch & Early Orbit																												
						ROSE Hibernation Wake-up																	ROSE Comet								ROSE Lander																																																
	CHDR Dark Current							CHDR Earth Eclipse								CHDR Dark Current								CHDR Dark Current								CHDR Earth Eclipse								ROSE Comet																																							
																			DAWN Ceres ThrstPB																								DAWN Ceres Approach																																				
																			DAWN Ceres ThrstTV																																																												
	DAWN Ceres Coastin																																																																														
GDSCC															D26 AZ Track Replacement - Proposed																																																																
															D26 80kW Facility Prep - NIB																																																																
CDSCC	D35 Acceptance Testing					D35 Systems Integration Testing					D35 System Performance Testing																																																																				
											D35 Operational																																																																				
MDSCC											D63 HBA Upgrades & Life Extension - 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																											

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## DSN Downtime 2014

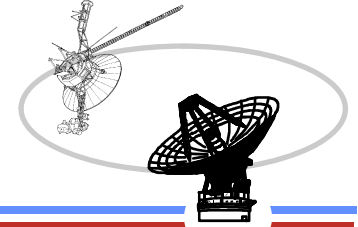
2014							
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 63	HBA Upgrades and Life Extension - Proposed	03/10/2014 00:00:	10/05/2014 00:00:	209	11 - 40	069	278
DSS 26	80 kW Facility Prep - NIB	03/31/2014 00:00:	05/18/2014 00:00:	48	14 - 20	090	138
DSS 26	AZ Track Replacement - Proposed	03/31/2014 00:00:	06/08/2014 00:00:	69	14 - 23	090	159







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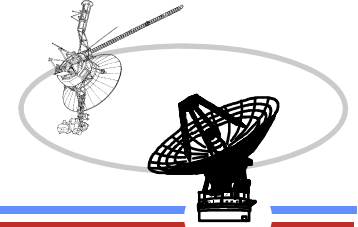


## DSN Downtime 2015

2015							
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 25	AZ Track Replacement - Proposed	03/31/2015 00:00:	06/07/2015 00:00	68	14 - 23	090	158



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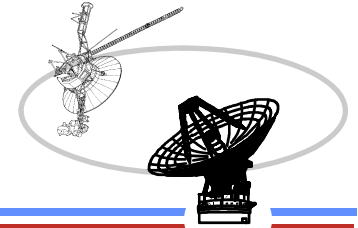
## Antenna Downtime Status and Forecast

The following are downtimes for 2015 – 2016

- ❑ AZ Track Replacement is requested for DSS-25 and 55
  - ❑ 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



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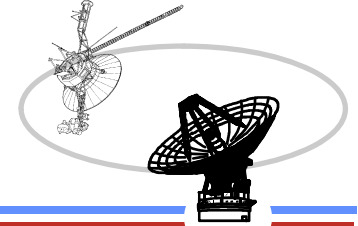
- 2016 -

	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																																																				
GDSCC																																																				
CDSCC																																																				
MDSCC																																																				

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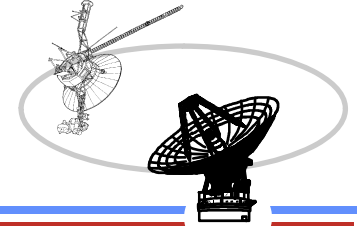


## DSN Downtime 2016

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	032	080
DSS 55	AZ Track Replacement - Proposed	02/01/2016 00:00:	04/10/2016 00:00:	69	05 - 14	032	101



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**- 2017 -**

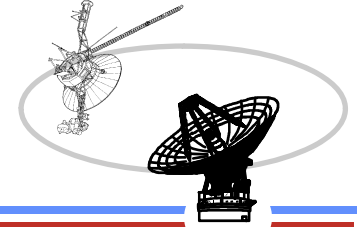
	January				February				March				April				May				June				July				August				September				October				November				December							
Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
2017 Key Project Events																																																				
GDSCC																																																				
CDSCC																																																				
MDSCC																																																				
	D55 Install 80kW																								D55 Test 80kW								D55 DDR																			
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

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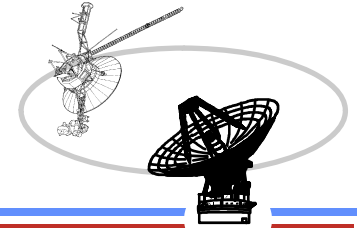


## Future assets new/upgrades

- ❑ DSS-35 Installation and Operational 2013 – 2014
  - ❑ Modkit Installation October 1 – November 19, 2013, weeks 40 - 47
  - ❑ Acceptance Testing October 23, 2013 – January 8, 2014, weeks 43 – 2
  - ❑ System Integration Testing November 20, 2013 – February 13, 2014, weeks 47 – 07
  - ❑ Operations Systems Performance Testing February 27 – May 1, 2014, weeks 09 – 18
  - ❑ 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



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## Antenna Downtime Status and Forecast

Complex	Station	Subnet	S-Band		X-Band		Ka-Band		Ka 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	✓	✓	✓	12/12/10	N/A	N/A	N/A
10	DSS-26	34B2	N/A	N/A	✓	✓	✓	N/A	N/A	N/A	10/01/15
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: 6/28/2010

✓ ✓ ✓ = Capability Recently Exists

✓ = Capability Exists

\* = To Be Commissioned