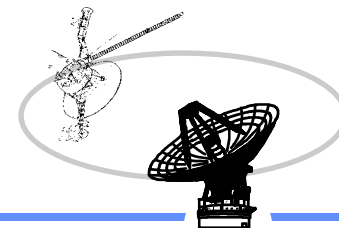


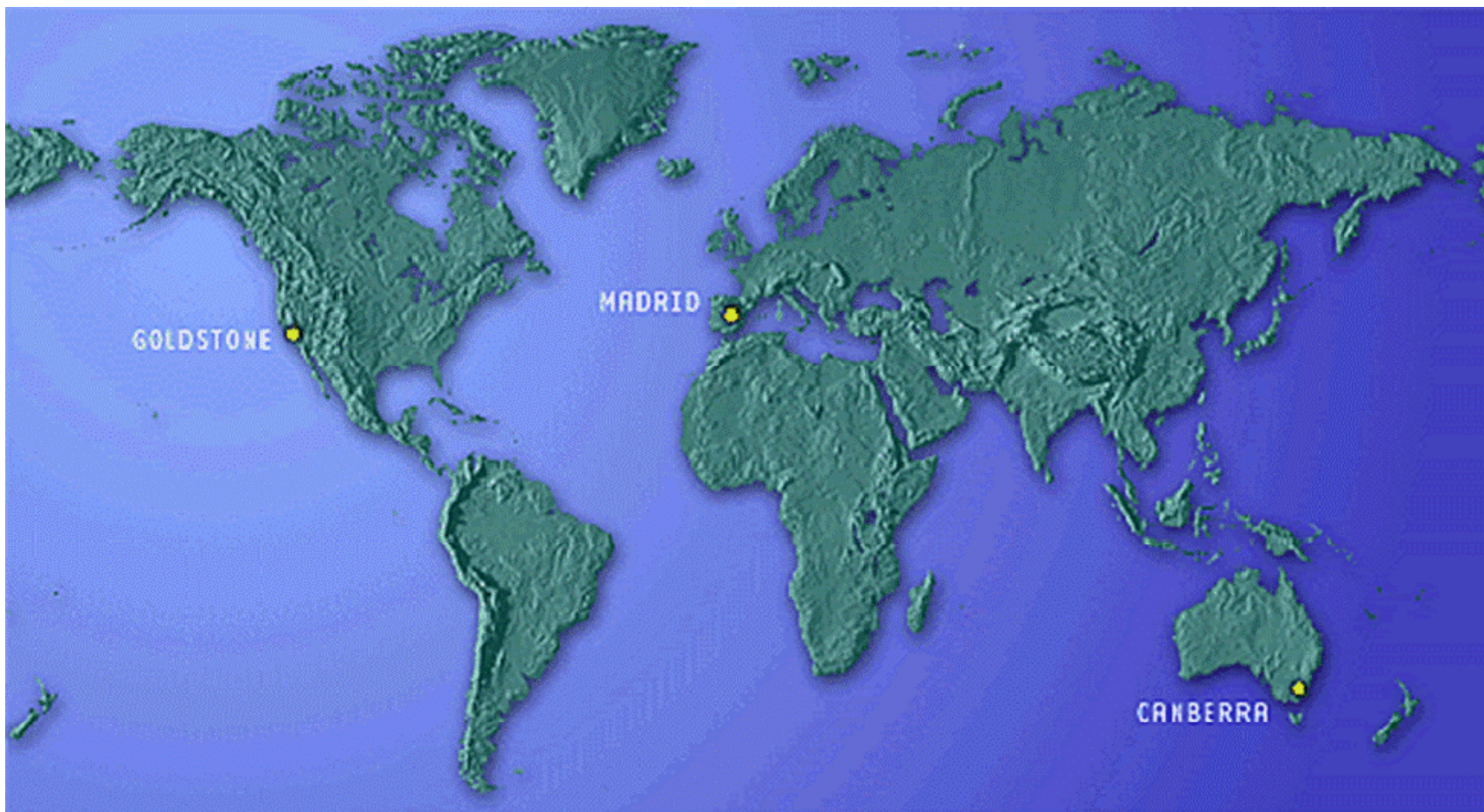


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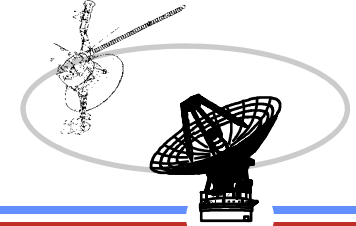
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DSN Antenna Downtime Status and Forecast





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	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				LRO Station Keeping MNVR																																							
	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		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				SOHO KH				VGR2 MAGROL																																							
	NHPC Enter Hibernation		SOHO MNVR		SOHO KH		GSSR Ast 1998 HE3		SOHO KH		CHDR ACA DC MESR		SOHO KH																																							
	NHPC Exit Hibernation		VGR1 DTR PB		NHPC Checkout		GSSR Ast 2002 AM31		NHPC Solar Conj		GSSR Ast 1998 ST49		SOHO KH																																							
	NHPC Solar Conj		NHPC Exit Hibernation		NHPC MNVR		NHPC Enter Hibernation		CAS Atmospheric Occ		GSSR Ast 1994 XD		NHPC Solar Conj																																							
NHPC C/O		GSSR Ast 2006 CJ		NHPC S/W Load		NHPC 2T/TA		CAS USO Recovery Attempt		DIF TCM		VGR1 DTR PB																																								
NHPC Radio Occultation		CAS TITAN		CAS TITAN		CAS TITAN		CAS Saturn Rings Occ		CAS Saturn Rings Occ		CAS Saturn Rings Occ																																								
NHPC MNVR		CAS ENCELADUS		CAS ENCELADUS		CAS ENCELADUS		CAS Saturn Rings Occ		GSSR Ast 1998 ST49		GSSR Ast 14179 Tout																																								
CAS TITAN		CAS TITAN		CAS ENCELADUS		CAS ENCELADUS Gravity Experiment		CAS TITAN		CAS TITAN		CAS TITAN Atmos DE																																								

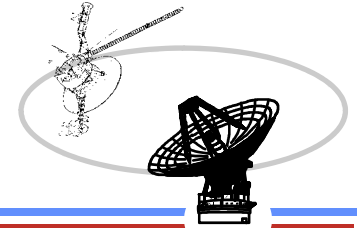
- 2012 -

	January	February	March	April	May	June	July	August	September	October	November	December
GDSCC	D15 TXR Manifold Upgrade		D15 Chiller Replacement		D14,15,24,25,26,27 Antenna Inspection		Complex NMC Acceptance Test		D25 Antenna Controller Replacement			
	D26 Antenna Controller Replacement		Complex NMC Test		D26 APCA OP-C		NIB		Complex NMC Soak Test			
	Complex NMC Test		70M Tune-up/Cal		D14 Plug Seal Replacement - NIB		D24 S-Band Tuner Replacement		D24 APCA OP-C - NIB		D15 Baldor Amplifier Expansion Board Installation	
CDSCC	D43 70M Tune-up/Cal		DPS Power Upgrade		D45 XTXR Manifold/Waterload Replacement		D45 AMP/CW Installation - NIB		Complex NMC Soak Test		D43 HBA Upgrade	
					D45 XTXR Manifold/Waterload Replacement		D45 AMP/CW Installation - NIB		D34 Baldor Amplifier Expansion Board Installation		D34 X/Ka Cooldown - NIB	
MDSCC	D63 Grouting		D63 70M Tune-up/Cal - NIB		D65 XTXR Manifold/Waterload Replacement		D65 AMP/CW Installation - NIB		D65 Critical Power Reconfiguration		D54 AZ Track Replacement/ACR	
			D55 Chiller Flush				D63 Emergency Grouting		D54 Lightning Survey - NIB			

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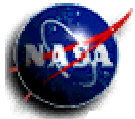
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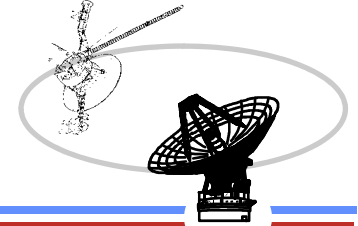
DSN Downtime 2012

2012							
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 54	AZ TRK/ACR Replacement	09/10/2012 05:00	02/18/2013 00:00	161	37 - 08	254	49
DSS 43	HBA Upgrade and Life Extension	11/12/2012 19:00	06/10/2013 07:00	210	46 - 24	317	161



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Antenna Downtime Status and Forecast

The following are downtimes for 2012

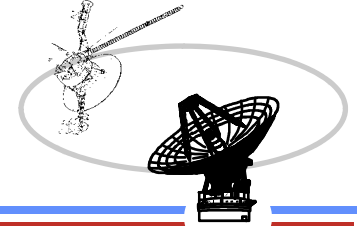
- BWG Antenna Controller Replacement
 - DSS-54 ACR and AZ Track Replacement is scheduled for September 10 – February 17, 2013, weeks 37 – 07 due to serious issues discovered with the concrete core in the pedestal. An additional extension may be required until the issue is resolved.

- 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 will be NIB
 - Power ECO will be scheduled NIB



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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 scheduled for the following weeks
 - Weeks 13, 17, 22, 26, 31, 34 – prime shift hours are requested but not necessary.

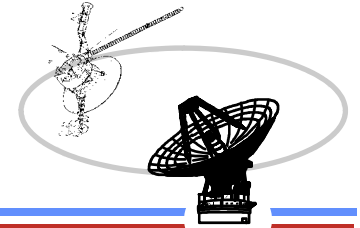
- BWG Antenna Controller Replacement for 2013
 - DSS-55 is scheduled for February 18 – April 4, weeks 08 – 14
 - ECR 11.0070 (Baldor amplifier expansion board installation) will be NIB

- 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 for the following weeks
 - Weeks 08, 12, 15, 18, 23, 29, 32 – Day shift requested
 - 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



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2013 – 2014 Downtimes (continued)

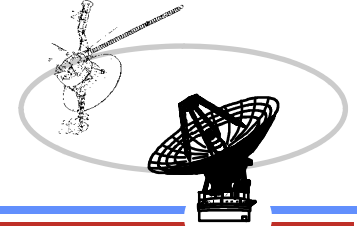
- ❑ SPC-40 request a total of 12 blocks of 3 hours each, complex downtime for Power House Commission in 2013. The following weeks are scheduled
 - ❑ Four blocks, 3 hours each, 2 consecutive blocks each in weeks 3 and 4
 - ❑ Five blocks, 3 hours each in May, **split between** weeks 21 and 22
 - ❑ Three blocks, 3 hours each in June, week 25

- ❑ AZ Track Replacement downtime is requested for DSS-24 and DSS-26
 - ❑ DSS-24 is scheduled for April 8, – June 17, 2013, weeks 15 – 24
 - ❑ **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-40 request a total of 24 hours of downtime on each antenna for inspection in 2013
 - ❑ Antennas include DSS-34, 43 and 45
 - ❑ Week 19 inspection times are scheduled for 8 hours NIB to maintenance plus 8 hours swing shift – Except DSS-43 which will be done during HBA downtime
 - ❑ Week 20 inspection times are scheduled for 8 hours NIB to maintenance



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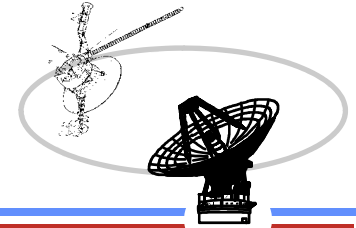
2013 – 2014 Downtimes (continued)

- DSS-63 downtime for Grouting 2013
 - Scheduled for July 15 – August 19, weeks 29 – 31
 - Note: Stand alone Grouting typically requires 15 days
 - AZ Runner Measurement – **Will be worked during off shift Station Directed Activity time**
- DSS-15 Maser **and S-Band Transmitter** Replacement is requested for 2013
 - Seventy seven days are scheduled for August 12, – November 4, weeks 33 – 44
- DCD 4.1 downtime requested for software installation for 2014
 - GDSCC and NOCC proposed for January 8, week 02
 - CDSCC is proposed for February 20, week 08
 - MDSCC is proposed for March 6, week 10 – potentially could be done with DSS-63 HBA downtime
- DSS-63 HBA Upgrade and Life Extension downtime is requested for 2014
 - Proposed for March 10 – October 20, weeks 11 – 42
 - Maser replacement will be NIB
- SPC-60 request a total of 24 hours of downtime on each antenna for inspection in 2014
 - Antennas include DSS-54, 55, 63 and 65
 - Week 30 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 31 inspection times are proposed for 8 hours NIB to maintenance

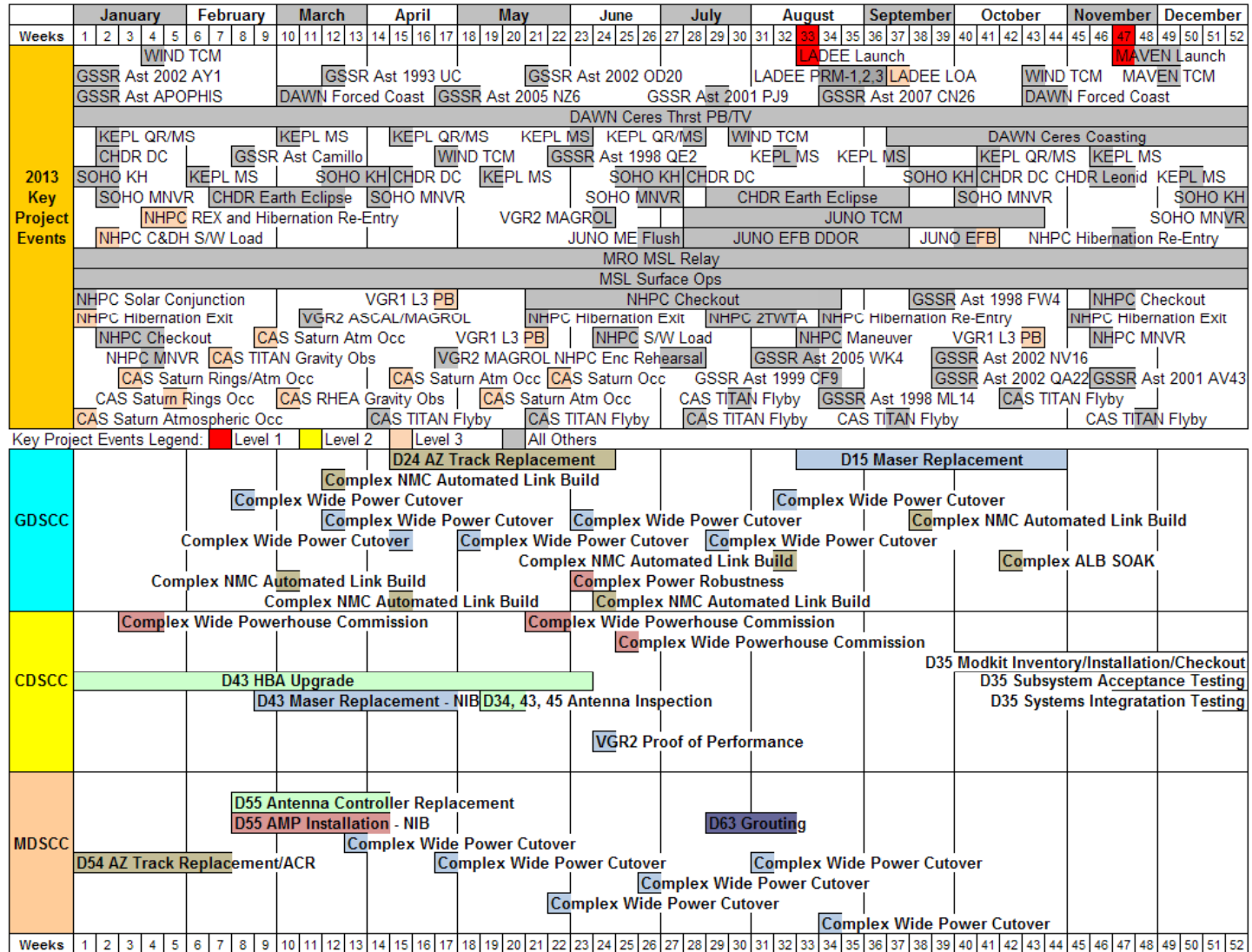


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- 2013 -

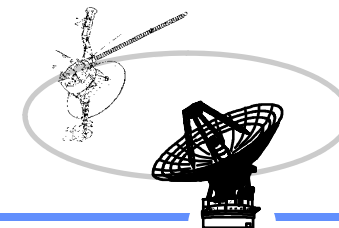


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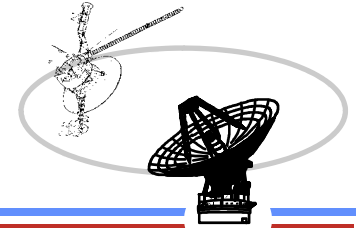
DSN Downtime 2013

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
DSS 55	Amp Implementation - NIB	02/18/2013 00:00	04/04/2013 00:00	45	08 - 14	49	94
DSS 55	Antenna Controller Replacement	02/18/2013 00:00	04/04/2013 00:00	45	08 - 14	49	94
SPC 10	Complex Power Cutover	02/21/2013 15:00	02/22/2013 03:00	0	08 - 08	52	53
DSS 43	Maser Replacement - NIB	02/25/2013 00:00	04/29/2013 00:00	63	09 - 18	56	119
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
DSS 54	Complex Power Cutover	03/27/2013 05:00	03/27/2013 17:00	0	13 - 13	86	86
DSS 55	Complex Power Cutover	03/27/2013 05:00	03/27/2013 17:00	0	13 - 13	86	86
DSS 63	Complex Power Cutover	03/27/2013 05:00	03/27/2013 17:00	0	13 - 13	86	86
DSS 65	Complex Power Cutover	03/27/2013 05:00	03/27/2013 17:00	0	13 - 13	86	86
DSS 24	AZ Track Replacement	04/08/2013 00:00	06/17/2013 00:00	70	15 - 25	98	168
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	04/11/2013 15:00	04/12/2013 03:00	0	15 - 15	101	102
DSS 54	Complex Power Cutover	04/24/2013 05:00	04/24/2013 17:00	0	17 - 17	114	114
DSS 55	Complex Power Cutover	04/24/2013 05:00	04/24/2013 17:00	0	17 - 17	114	114
DSS 63	Complex Power Cutover	04/24/2013 05:00	04/24/2013 17:00	0	17 - 17	114	114
DSS 65	Complex Power Cutover	04/24/2013 05:00	04/24/2013 17:00	0	17 - 17	114	114
SPC 10	Complex Power Cutover	05/02/2013 15:00	05/03/2013 03:00	0	18 - 18	122	123
DSS 43	Antenna Inspection	05/06/2013 22:00	05/07/2013 14:00	1	19 - 19	126	127



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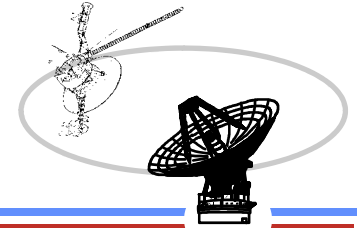


DSN Downtime 2013

2013							
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
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
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 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
SPC 10	Complex Power Cutover	06/06/2013 15:00	06/07/2013 03:00	0	23 - 23	157	158
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 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



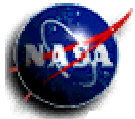
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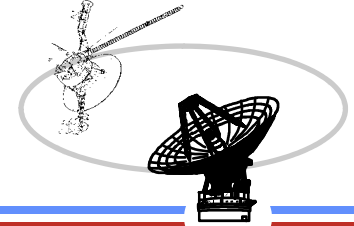
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DSN Downtime 2013

2013							
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 63	Grouting - Proposed	07/15/2013 00:00	08/02/2013 17:00	19	29 - 31	196	214
SPC 10	Complex Power Cutover	07/18/2013 15:00	07/19/2013 03:00	0	29 - 29	199	200
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	08/08/2013 00:00	08/08/2013 08:00	0	32 - 32	220	220
SPC 10	Complex Power Cutover	08/08/2013 15:00	08/09/2013 03:00	0	32 - 32	220	221
DSS 15	Maser Replacement	08/12/2013 14:00	11/04/2013 01:00	83	33 - 45	224	308
SPC 60	Complex Power Cutover	08/22/2013 05:00	08/22/2013 17:00	0	34 - 34	234	234
SPC 10	NMC Automated Link Build	09/19/2013 00:00	09/19/2013 08:00	0	38 - 38	262	262
SPC 10	NMC Automated Link Build - SOAK	10/17/2013 00:00	10/17/2013 08:00	0	42 - 42	290	290

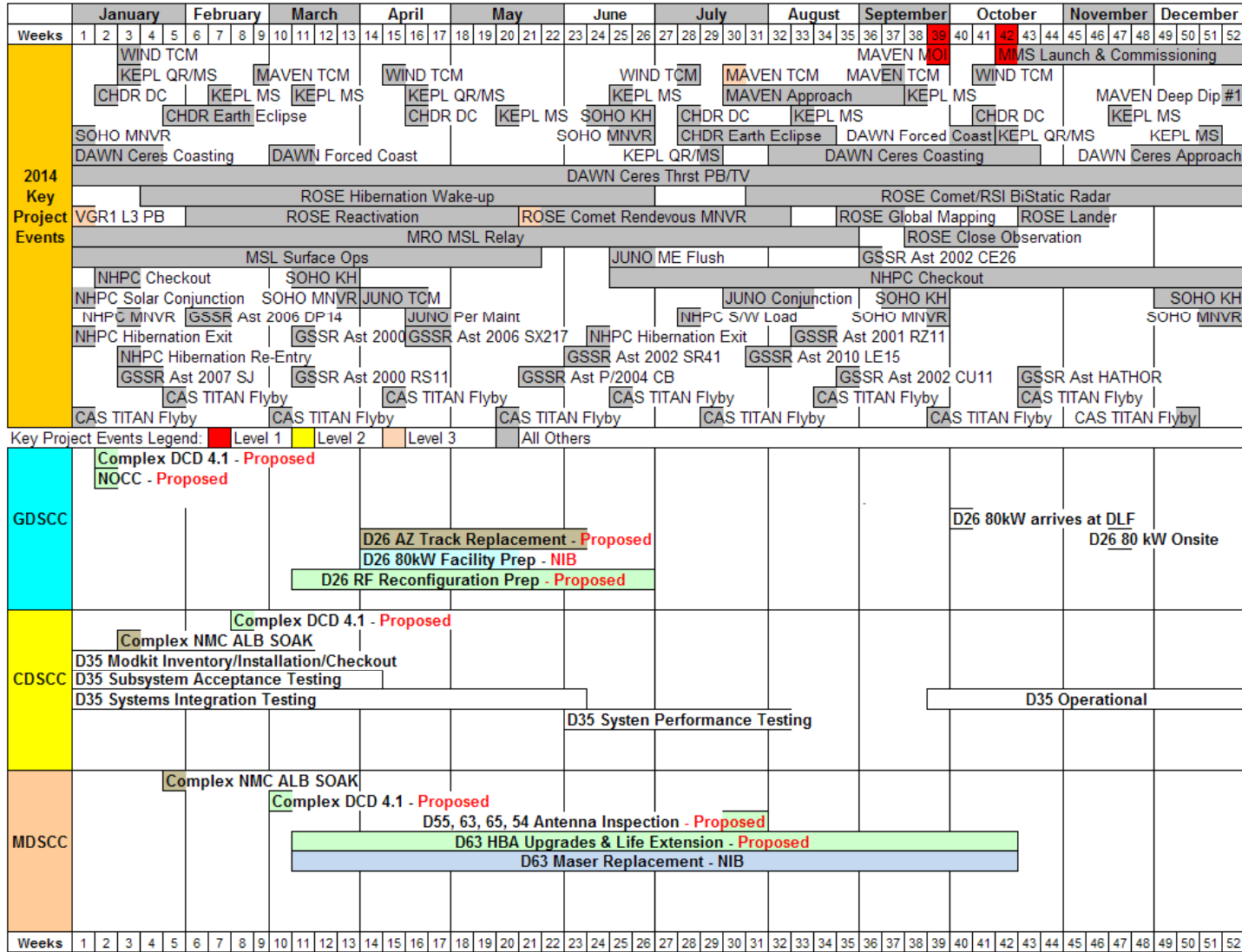


Interplanetary Network Directorate (IND) Deep Space Network (DSN) Resource Allocation Planning Service



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- 2014 -

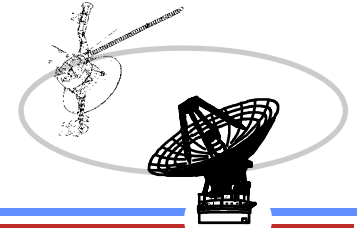


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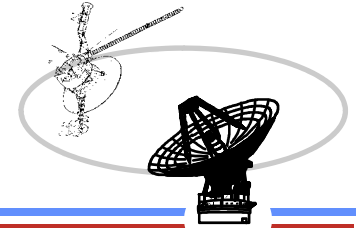
DSN Downtime 2014

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	DCD 4.1 - Proposed	02/20/2014 23:00	02/21/2014 05:00	0	08 - 08	51	52
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 63	HBA Upgrades and Life Extension - Proposed	03/10/2014 00:00	10/19/2014 00:00	223	11 - 42	69	292
DSS 63	S-Band Maser Replacement - NIB	03/10/2014 00:00	10/19/2014 00:00	223	11 - 42	69	292
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	07/21/2014 07:00	07/21/2014 23:00	1	30 - 30	202	202
DSS 65	Antenna Inspection - Proposed	07/22/2014 07:00	07/22/2014 23:00	1	30 - 30	203	203
DSS 63	Antenna Inspection - Proposed	07/23/2014 07:00	07/23/2014 23:00	1	30 - 30	204	204
DSS 54	Antenna Inspection - Proposed	07/25/2014 07:00	07/25/2014 23:00	1	30 - 30	206	206
DSS 55	Antenna Inspection - Proposed	07/28/2014 07:00	07/28/2014 16:30	0	31 - 31	209	209
DSS 65	Antenna Inspection - Proposed	07/29/2014 07:00	07/29/2014 16:30	0	31 - 31	210	210
DSS 54	Antenna Inspection - Proposed	08/01/2014 07:00	08/01/2014 16:30	0	31 - 31	213	213



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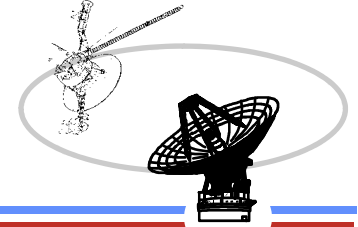
DSN Downtime 2015

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 15	Antenna Drive Replacement - Proposed	05/04/2015 00:00	07/06/2015 00:00	63	19 - 28	124	187
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 65	Maser Replacement - Proposed	08/03/2015 00:00	11/23/2015 00:00	112	32 - 48	215	327



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Antenna Downtime Status and Forecast

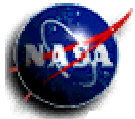
The following are downtimes for 2015 – 2018

- 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

- HEF Antenna Drive Replacement requested
 - DSS-15 is proposed for May 4 – July 6, 2015 weeks, 19 – 27
 - DSS-15 Antenna inspection is proposed for weeks 19 and 20
 - DSS-65 is proposed for August 7 – October 2, 2017, weeks 32 – 39
 - DSS-65 Antenna inspection is proposed for weeks 33 and 34

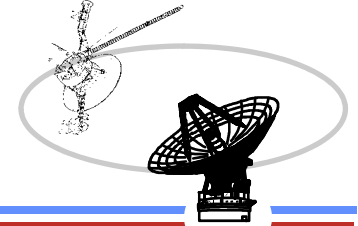
- SPC-10 request a 24 hour downtime on each antenna for inspection in 2015
 - Antennas include DSS-14, 15, 24, 25, 26 and 27
 - Week 19 inspection times are proposed for 8 hours NIB to maintenance plus 8 hours swing shift
 - Week 20 inspection times are proposed for 8 hours NIB to maintenance

- SPC- 40 request a 24 hour downtime on each antenna for inspection in 2016
 - Antennas include DSS-34, 43 and 45
 - Week 18 inspection times are proposed for 8 hours NIB to maintenance plus 8 hours swing shift
 - Week 19 inspection times are proposed for 8 hours NIB to maintenance



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Antenna Downtime Status and Forecast

2015 – 2018 Downtimes cont.

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

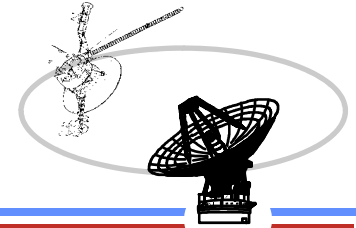
- HEF Transmitter Replacement requested
 - DSS-15 Proposed for July 11 – September 12, 2016 weeks, 28 – 39
 - DSS-45 Proposed for May 15 – August 7, 2017, weeks, 20 – 31
 - DSS-65 Proposed for July 16 – October 8, 2018, weeks 29 – 40

- AZ Track Replacement is requested for DSS-25 and DSS-55
 - DSS-55 is proposed for February 1 – April 10, 2016, weeks 05 – 14
 - 80 kW Facility Preparation will be NIB for February 1 – March 20, weeks 05 – 11
 - Reconfiguration Prep is proposed for February 1 – May 23, weeks 05 – 20
 - DSS-25 is proposed for January 29 – April 08, 2018, weeks 05 – 14
 - XX/Ka Installation will be NIB

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

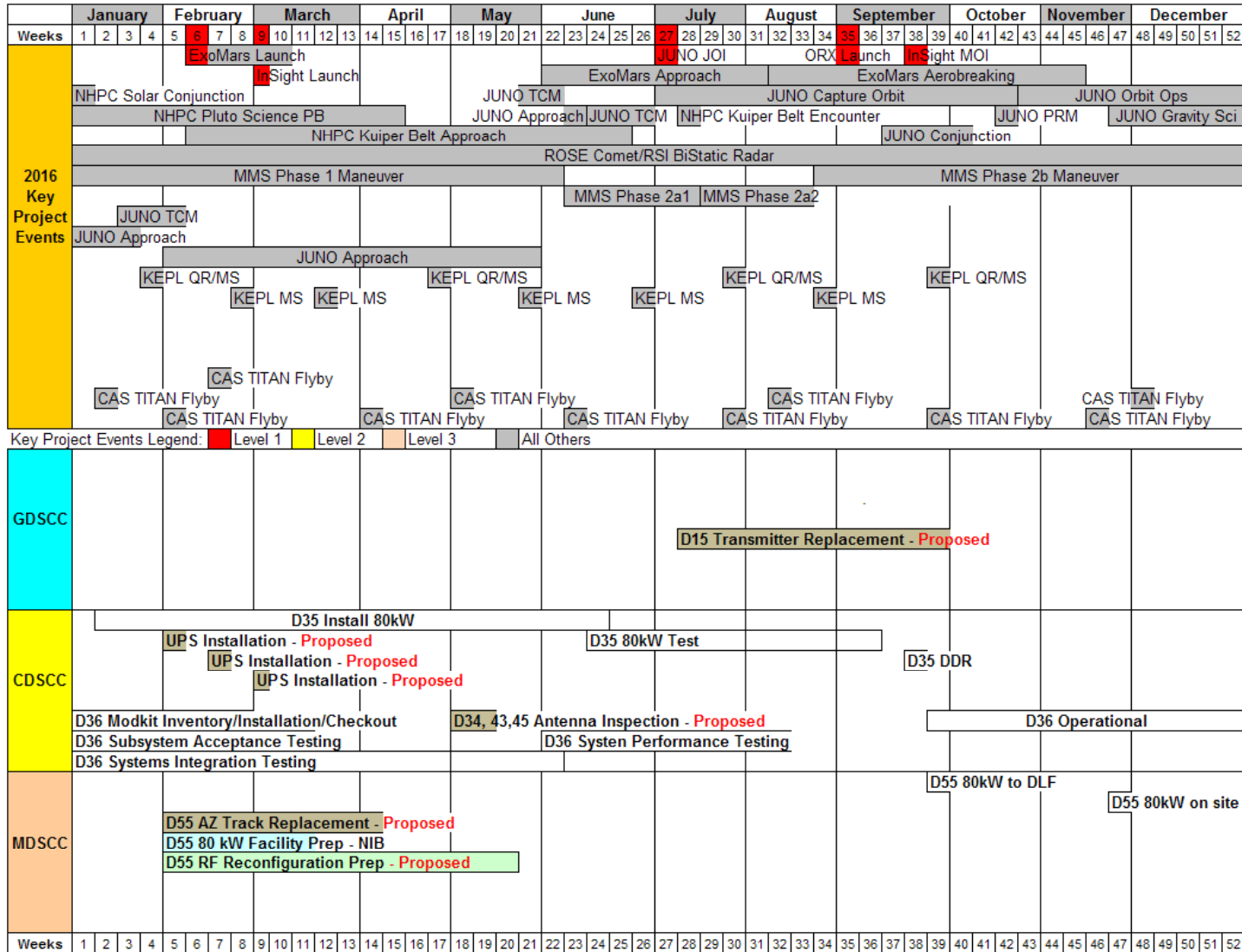


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- 2016 -

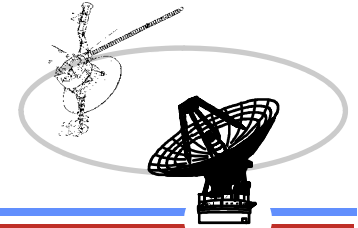


Revised: October 31, 2012



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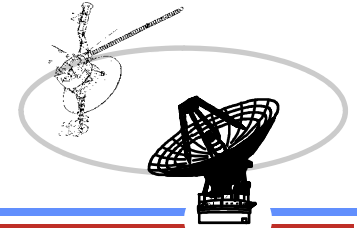


DSN Downtime 2016

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	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
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	07 - 07	48	49
SPC 40	UPS Installation - Proposed	03/02/2016 21:00	03/03/2016 09:00	0	09 - 09	62	63
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



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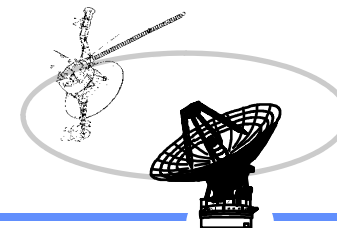
- 2017 -

	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	MMS Phase 2b Maneuver				MMS Disposal				JUNO Orbit Ops/Gravity Sci																																																JUNO Deorbit			
	CAS TITAN Flyby																																																											
Key Project Events Legend: ■ Level 1 ■ Level 2 ■ Level 3 ■ All Others																																																												
GDSCC																																																												
CDSCC	D45 Transmitter Replacement - Proposed																																																											
MDSCC	D55 Install 80kW																								D55 Test 80kW												D65 Antenna Drive Replacement - Proposed				D54,55,63, 65 Antenna Inspection - Proposed				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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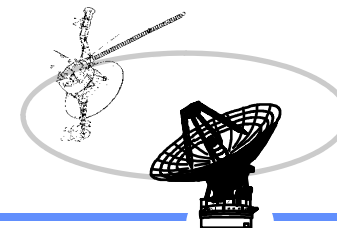
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DSN Downtime 2017

2017							
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 45	Transmitter Replacement - Proposed	05/15/2017 00:00	08/07/2017 00:00	84	20 - 32	135	219
DSS 65	Antenna Drive Replacement - Proposed	08/07/2017 00:00	10/02/2017 00:00	56	32 - 40	219	275
DSS 55	Antenna Inspection - Proposed	08/14/2017 07:00	08/14/2017 23:00	1	33 - 33	226	226
DSS 65	Antenna Inspection - Proposed	08/15/2017 07:00	08/15/2017 23:00	1	33 - 33	227	227
DSS 63	Antenna Inspection - Proposed	08/16/2017 07:00	08/16/2017 23:00	1	33 - 33	228	228
DSS 54	Antenna Inspection - Proposed	08/18/2017 07:00	08/18/2017 23:00	1	33 - 33	230	230
DSS 55	Antenna Inspection - Proposed	08/21/2017 07:00	08/21/2017 16:30	0	34 - 34	233	233
DSS 63	Antenna Inspection - Proposed	08/23/2017 07:00	08/23/2017 16:30	0	34 - 34	235	235
DSS 54	Antenna Inspection - Proposed	08/25/2017 07:00	08/25/2017 16:30	0	34 - 34	237	237

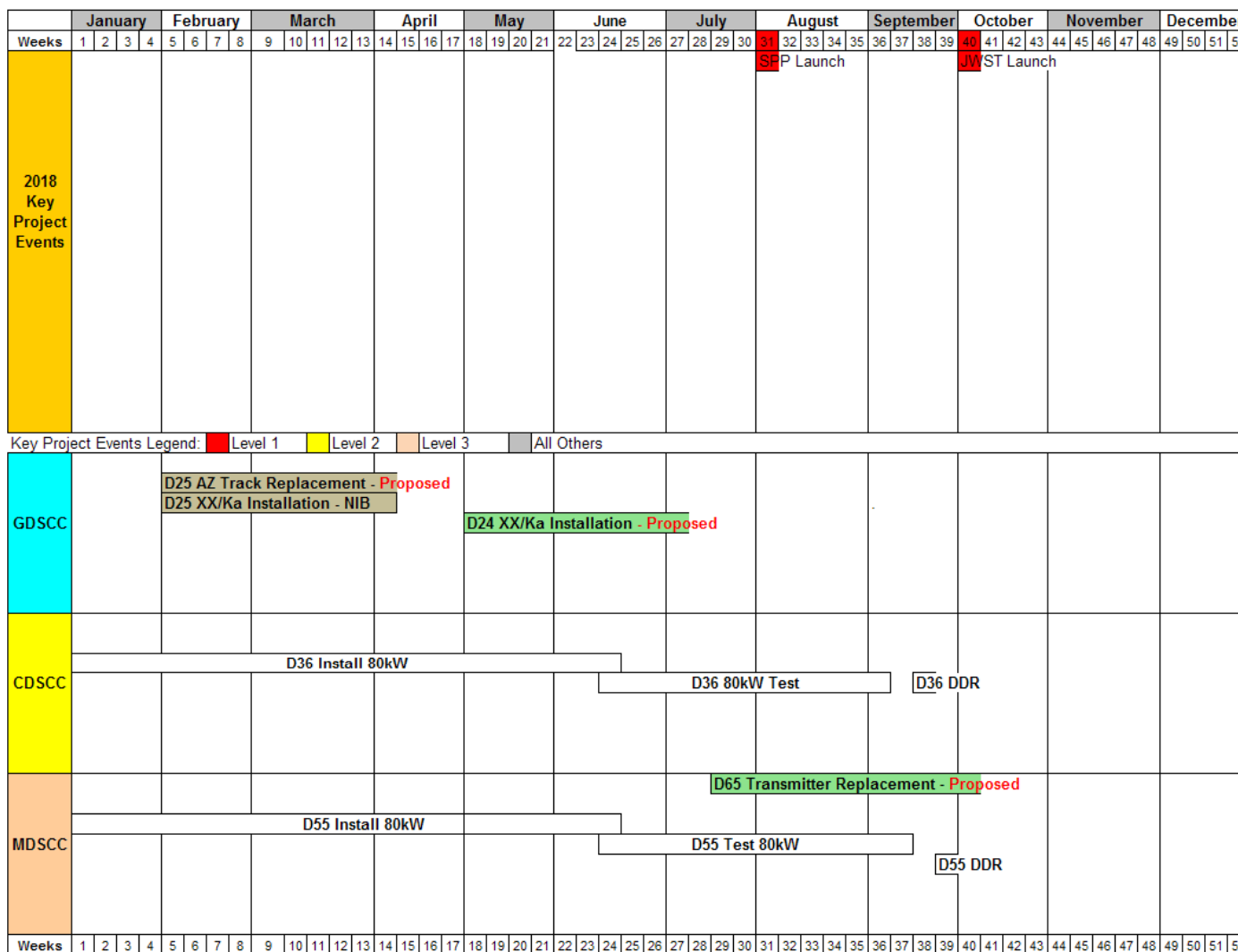


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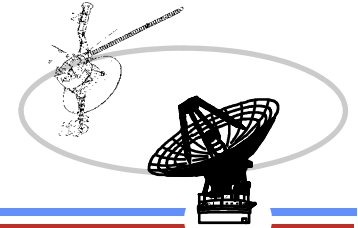
- 2018 -



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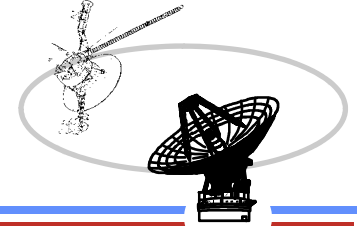
DSN Downtime 2018

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 - 15	29	99
DSS 24	XX/Ka Installation - Proposed	04/30/2018 00:00	07/09/2018 00:00	70	18 - 28	120	190
DSS 65	Transmitter Replacement - Proposed	07/16/2018 00:00	10/08/2018 00:00	84	29 - 41	197	281



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Future assets new/upgrades

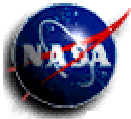
- ❑ DSS-35 Installation and Operational 2013 – 2014
 - ❑ Modkit Installation October 1, 2013 – March 14, 2014 weeks 40 – 11
 - ❑ Acceptance Testing November 22, 2013 – April 4, 2014, weeks 47 – 14
 - ❑ System Integration Testing December 17, 2013 – June 2, 2014 weeks 51 – 23
 - ❑ Operations Systems Performance 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

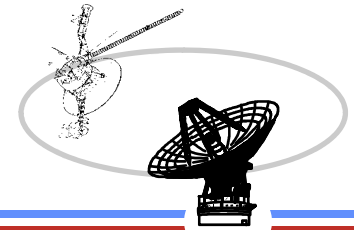
- ❑ DSS-36 Installation and Operational 2016 – A placeholder has been set awaiting dates

- ❑ 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



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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