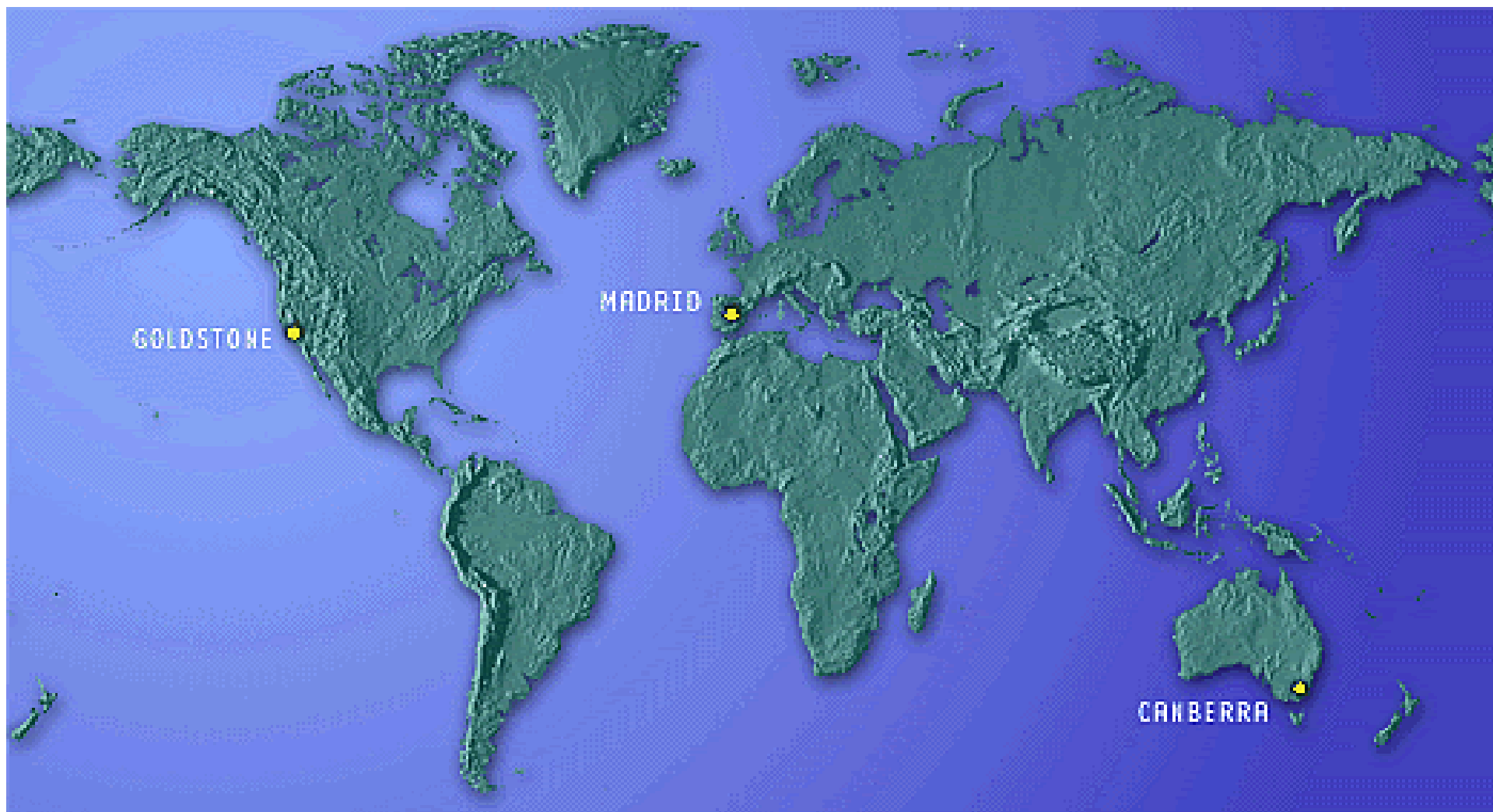


DSN Antenna Downtime Status and Forecast



<http://rapweb.jpl.nasa.gov/planning>

Antenna Downtime Status and Forecast

The following are downtimes for 2009 and 2010

- ❑ Complex preventative maintenance “Echo Tie-Line Electrical Maintenance” is being requested
 - ❑ Requesting time in week 34 DOY 229
 - ❑ Requested time has been sent to MRSS to be integrated into schedule generation
- ❑ DSS-63 downtime for EI Bearing Replacement and Depot Level Maintenance (including grouting) is scheduled for May 4 through June 28, 2009, weeks 19 - 26.
 - ❑ Downtime has been started
 - ❑ Additional time will be added to the 2011 downtime due to the reduced length of this downtime.
- ❑ SPC-60 downtime for UPS installation in preparation for DCD testing.
 - ❑ Requested 12 hours in the late June time frame prior to DCD testing starting in July.
 - ❑ Can do evenings but would prefer day shift Monday through Friday.
 - ❑ Downtime confirmed for DOY 174 0555 - 0355
- ❑ DSS-54 downtime for Ka-Band Phase 2 is scheduled for June 29 through September 27, 2009, weeks 27 – 39.
 - ❑ This downtime must end prior to the end of the fiscal year.
 - ❑ Request for has been time sent to MRSS to be incorporate into process for integrated schedule generation
- ❑ Complex corrective maintenance “G86/G81 Transfer Switch Electrical Maintenance”
 - ❑ Requesting time in week 35 DOY 239

Antenna Downtime Status and Forecast

The following are downtimes for 2009 and 2010 (cont'd)

- ❑ DSS-54 downtime for ACQ AID installation is scheduled for September 30-October 4 and October 7-11, 2009, weeks 40 & 41.
 - ❑ DSS-55 & -65 maintenance are scheduled for first 2 days of each week and station has agreed to work around these maintenance days.
 - ❑ Conflicts will be resolved at the conflict negotiation meeting. Request has been sent to MRSS for integrated schedule generation

- ❑ DSS-14 Grouting is planned for July and October of 2009 weeks 30 & 44.
 - ❑ With the shift of the Life Extension and Depot Level Maintenance to 2010, 2 additional grouting periods will be needed in 2009
 - ❑ July grouting changed to 7 days DOY 201-207. There is no flexibility on this downtime
 - ❑ Scheduled for DOYs 300-302
 - ❑ Still a few conflicts to be resolved at conflict negotiation meeting. Request has been sent to MRSS for integrated schedule generation

- ❑ DSS-24 downtime for painting is scheduled August 31 through September 25, 2009, weeks 36 – 43
 - ❑ All supports have been moved to other antenna during this downtime.
 - ❑ There will be complete 24/7 downtime for the first 4 weeks and dayshift downtime (1400-0200) for the remaining weeks.
 - ❑ Depot Level Maintenance will be scheduled the first 4 weeks of this downtime.
 - ❑ Request has been sent to MRSS for integrated schedule generation

- ❑ DSS-15 downtime for Pintle Bearing is scheduled for November 2, 2009 through January 10, 2010, weeks 45 - 01.
 - ❑ Downtime extended to compensate for the holidays.
 - ❑ DSS 15 Elevation Gearbox Replacement will be scheduled NIB during downtime

- ❑ DSS-34 downtime for Azimuth Track Replacement is scheduled February 1 through April 11, 2010, weeks 5 – 14.
 - ❑ This also includes M1-5 Mirror Alignment and M5 Support Ring Replacement.

Antenna Downtime Status and Forecast

The following are downtimes for 2009 through 2010

- ❑ DSS-14 downtime for Life Extension and Depot Level Maintenance will start March 8, through October 10, 2010, weeks 10-40
 - ❑ This includes Big Runner Replacement and EI Bearing to eliminate grouting
 - ❑ Included is Fall Arrest downtime
- ❑ DSS-65 downtime for Life Extension Elevation is scheduled for August 2 through October 3, 2010, weeks 31 - 39.
 - ❑ All supports have been moved to other antenna during this downtime.
 - ❑ This overlaps with DSS-14 Life Extension, should not be a problem
- ❑ DSS-25 downtime for Ka U/L is scheduled for November 8 through December 12, 2010 weeks 45 – 49.
 - ❑ An additional week has been added to compensate for the holiday.
 - ❑ Depot Level Maintenance will be scheduled during this downtime.
 - ❑ APCA testing is also requested for this downtime

Antenna Downtime Status and Forecast

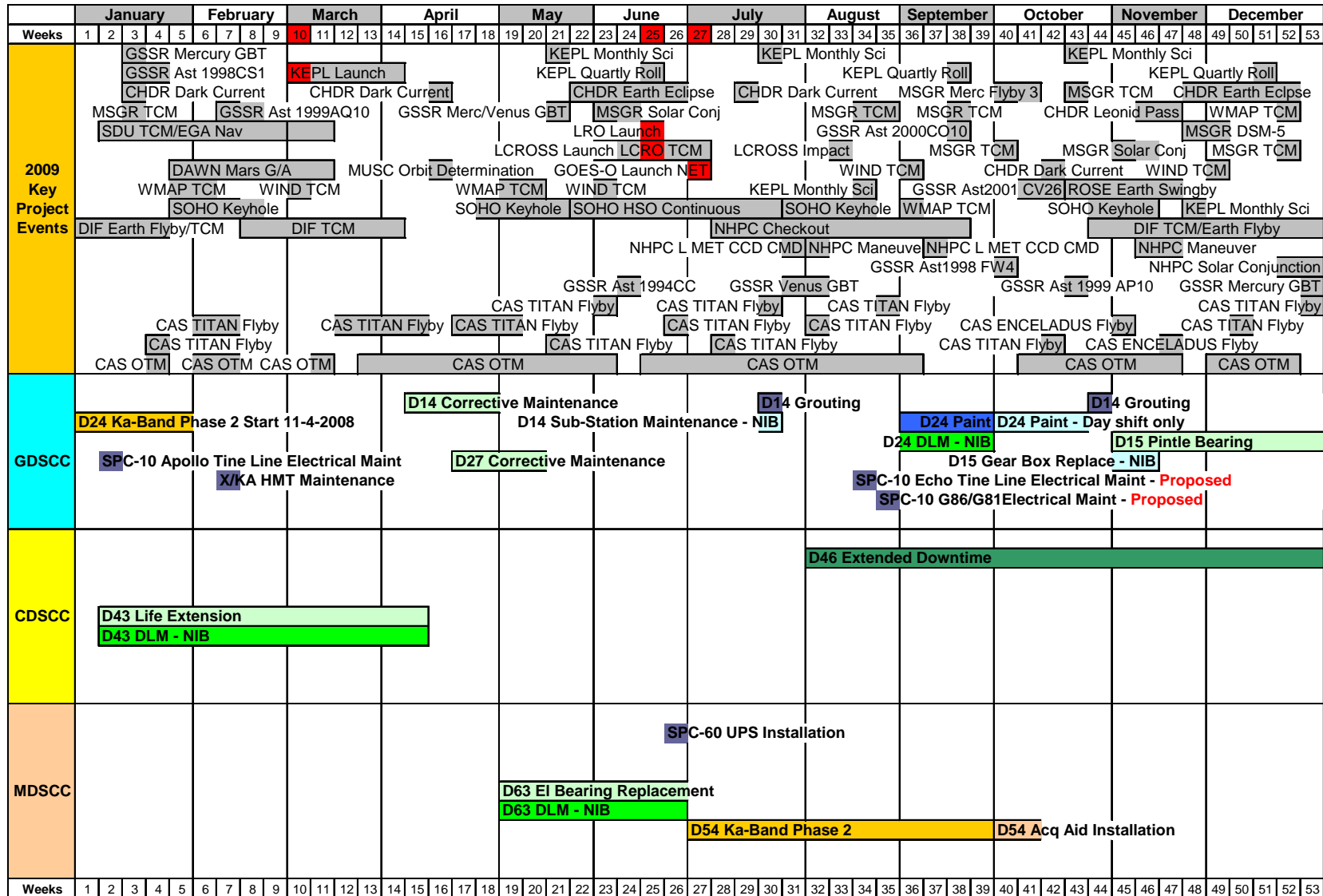
The following are downtimes for 2011 through 2013 (cont'd)

- ❑ As a result of the reduction of downtime for DSS-43 & DSS-63 in 2008 & 2009, it is requested to recover that time in 2011 and 2012, local spring, summer or fall after DSS-14 RTS.
 - ❑ DSS-63 is proposed for mid April through the end of September, 2011 weeks 16 – 39.
 - ❑ DSS-43 is proposed for February through May of 2012, weeks 5 – 22.
 - ❑ Due to high activities for GRAIL A and B science, they may be an overload on 34 meter antennas at CDSCC.
 - ❑ It has been recommended that DSS-43 downtime be moved to 2013 weeks 5 – 22

- ❑ BWG Antenna Controller Replacement is being requested starting in mid-April of 2011.
 - ❑ DSS-24 is proposed for May 2-29, weeks 18-21
 - ❑ DSS-27 is proposed for June 6-26,2011 weeks 23-25
 - ❑ DSS-25 is proposed for October 10-30 2011 weeks 41-43
 - ❑ DSS-34 is proposed for June 11 through July 8 2012

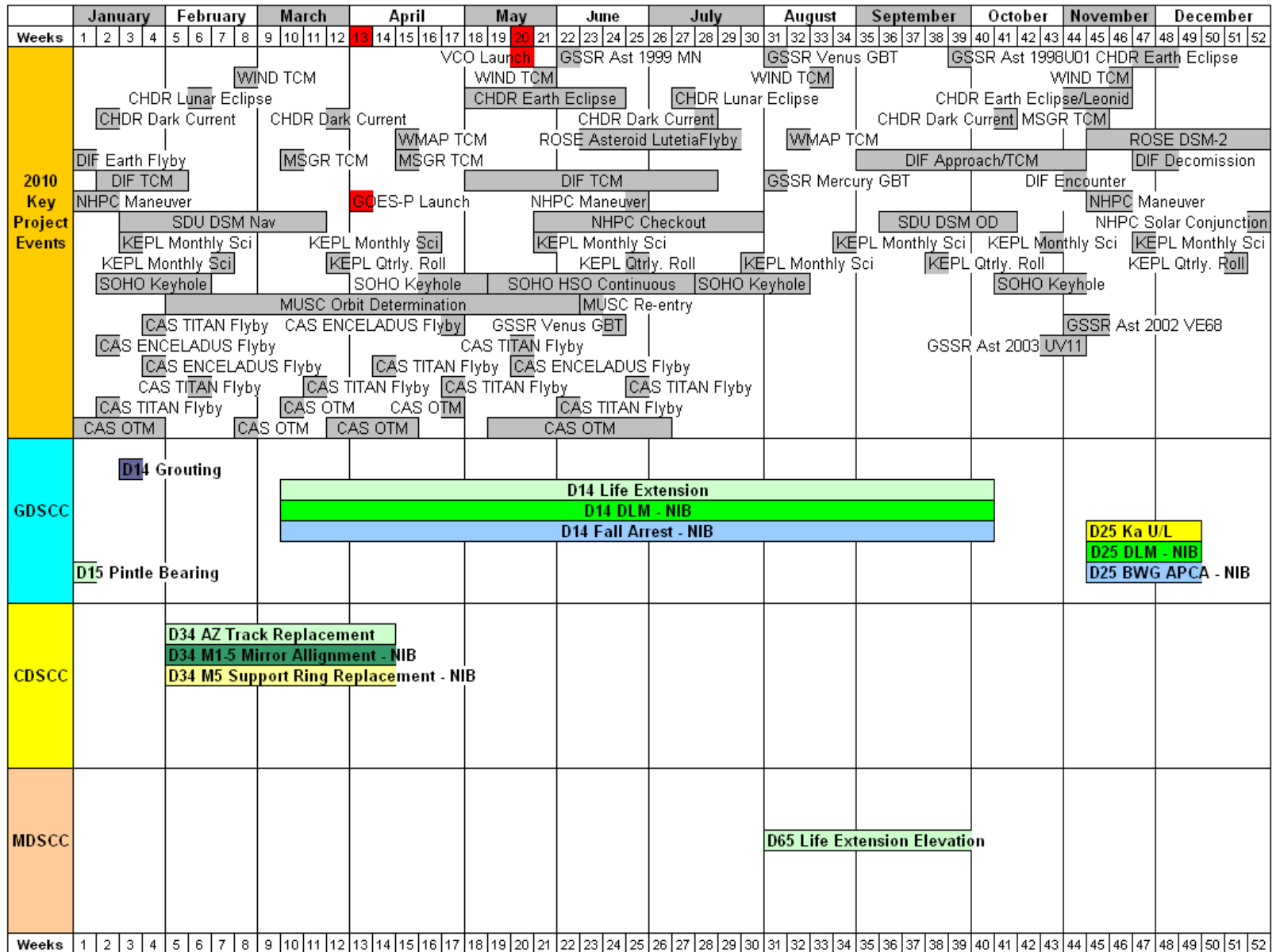
- ❑ AZ Track Replacement is needed for DSS-24, 54, 25, 26 and 55 starting in 2012 in the spring and fall. Propose the following sequence.
 - ❑ DSS-54 is scheduled for February 27 through May 6, 2012, weeks 9 – 18.
 - ❑ DSS-24 is scheduled for September 3 through November 11, 2012, weeks 36-45
 - ❑ After looking at the load, it has been recommended that DSS-54 be scheduled for the spring and dss-24 be scheduled for the fall although **it is the worst it of the antennas ?**
 - ❑ DSS-25 is scheduled for February 25 through May 5, 2013, weeks, 9 – 18.
 - ❑ DSS-26 is scheduled for September 2 through November 10, 2013, weeks 36-45.
 - ❑ DSS-55 is scheduled for March 3 through May 11, 2014, weeks 10 – 19 and may be combined with ACR.

Antenna Downtime Status and Forecast 2009



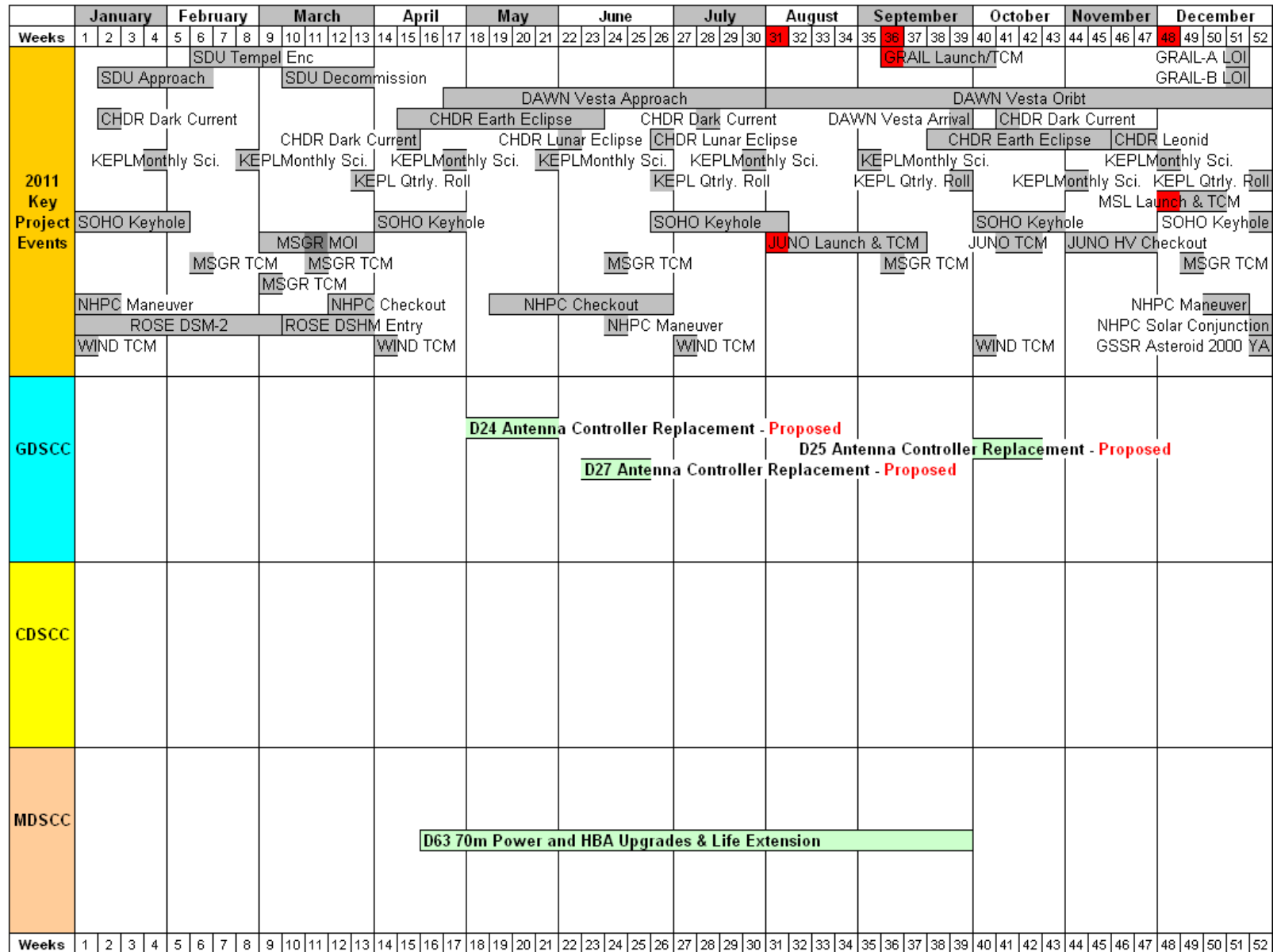
Revised: May 29, 2009

Antenna Downtime Status and Forecast 2010



Revised: May 4, 2009

Antenna Downtime Proposed Moves 2011



Revised: May 4, 2009

Antenna Downtime Status and Forecast 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	DAWN Vesta Orbit														DAWN Vesta Depart				DAWN Ceres Thrust PB and TV																																			
	WIND TCM				GSSR Ast 2000 ET70				WIND TCM								WIND TCM				KEPL Qtrly. Roll				WIND TCM																													
					KEPL Monthly Sci.				KEPL Qtrly. Roll				KEPL Monthly Sci.				KEPL Qtrly. Roll				KEPL Monthly Sci.				KEPL Monthly Sci.				GSSR Ast 2007 PA8																									
					KEPL Monthly Sci.								KEPL Monthly Sci.												KEPL Monthly Sci.																													
					GSSR Ast Eros				JUNO DSMs DDOR								JUNO DSMs DDOR				JUNO DSMs/DDORs/TCMs				JUNO Per Maint																													
	JUNO Cruise																																																					
	CHDR Dark Current								CHDR Dark Current								CHDR Dark Current								CHDR Dark Current																													
					GSSR Mars				CHDR Earth Eclipse								GSSR Ast 2005 G021				CHDR Earth Eclipse								CHDR Leonid																									
	MRO Relay																																																					
	GRAIL A LOI/OPR/TSF												NHPC DDOR				NHPC DDOR												GSSR Ast 1998 ST49																									
	GRAIL B LOI/OPR/TSF																NHPC Maneuver				GSSR Ast 2002 AM31								GSSR Ast 4179 Tout																									
					GSSR Ast 1991 VK				GRAIL A/B Science																																													
					NHPC Beacon				NHPC Beacon				NHPC Checkout								NHPC Beacon																																	
	NHPC Solar Conjunction												MSL INST Checkout 2								MSL EDL/TCM				NHPC Solar Conjunction																													
													MSL FSW Update								MSL Approach																																	
					MSL TCM				MSL FS Checkout 2								MSL TCM								MSL Surface Ops																													
																									MRO MSL Relay																													
GDSCC					D24 AZ Track Replacement - Proposed																																																	
					D26 Antenna Controller Replacement - Proposed																																																	
CDSCC																																																						
					D43 70m Power and HBA Upgrades																																																	
MDSCC																																																						
																													D54 AZ Track Replacement - Proposed																									

Revised: April 6, 2009

Antenna Downtime Status and Forecast 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	DAWN Ceres Coasting																																																			
	DAWN Ceres Thrst PB/TV																																																			
	CHDR Dark Current									CHDR Dark Current								JWST Launch								CHDR Dark Current								CHDR Dark Current																		
						CHDR Earth Eclipse								CHDR Dark Current								CHDR Earth Eclipse								CHDR Leonid																						
	JUNO Cruise																					JUNO Cruise								JUNO EFB				JUNO Cruise																		
																		JUNO ME Flush								JUNO TCM																										
	MRO MSL Relay																																																			
	NHPC Solar Conjunction																	NHPC Checkout																																		
																		NHPC DDOR				NHPC DDOR								NHPC Beacon																						
																		NHPC Maneuver																																		
GDSCC																																																				
											D25 AZ Track Replacement - Proposed																								D26 AZ Track Replacement - Proposed																	
CDSCC																																																				
MDSCC	D54 Antenna Controller Replacement - Proposed																																																			
																		D55 Antenna Controller Replacement - Proposed												D54 AZ Track Replacement - Proposed																						
Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52

Revised: April 6, 2009

Antenna Downtime Status and Forecast

DSN Resource Implementation Planning Matrix by Subnet

Complex	Station	Subnet	S-Band		X-Band		Ka-Band		Ka Phase 2
			Down	Up	Down	Up	Down	Up	
40	DSS-46	26M*	✓	✓	N/A	N/A	N/A	N/A	N/A
10	DSS-27	34HSB	✓	✓	N/A	N/A	N/A	N/A	N/A
10	DSS-24	34B1	✓	✓	✓	✓	N/A	N/A	TBD
40	DSS-34	34B1	✓	✓	✓	✓	✓	N/A	TBD
60	DSS-54	34B1	✓	✓	✓	✓	✓	N/A	09/27/09
10	DSS-25	34B2	N/A	N/A	✓	✓	✓	08/29/10	N/A
10	DSS-26	34B2	N/A	N/A	✓	✓	✓	N/A	N/A
60	DSS-55	34B2	N/A	N/A	✓	✓	✓	N/A	N/A
10	DSS-15	34HEF	✓	N/A	✓	✓	N/A	N/A	N/A
40	DSS-45	34HEF	✓	✓	✓	✓	N/A	N/A	N/A
60	DSS-65	34HEF	✓	✓	✓	✓	N/A	N/A	N/A
10	DSS-14	70M	✓	✓	✓	✓	N/A	N/A	N/A
40	DSS-43	70M	✓	✓	✓	✓	N/A	N/A	N/A
60	DSS-63	70M	✓	✓	✓	✓	N/A	N/A	N/A

N/A = Capability Not Planned xx/xx/xx = Capability Date Recently Changed As of: 03/02/09
 ✓✓✓ = Capability Recently Exists ✓ = Capability Exists * = To Be Decommissioned