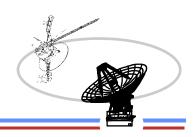
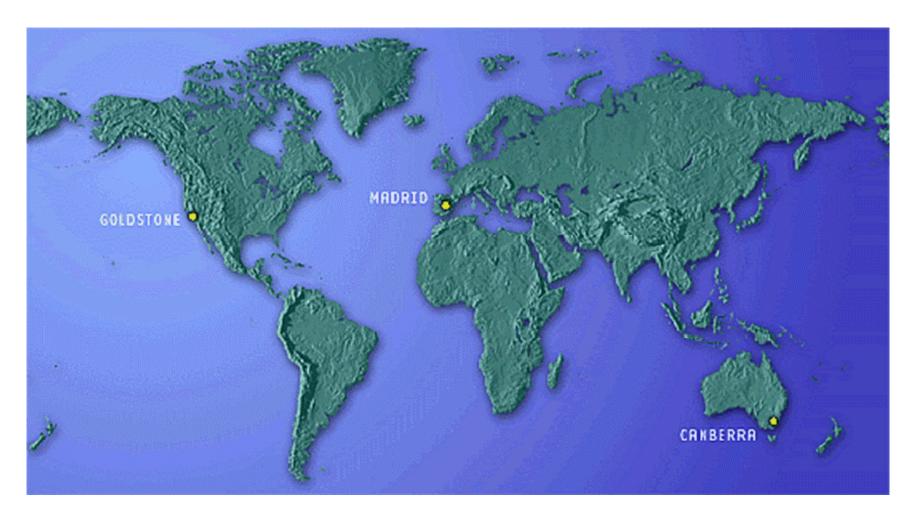


### Resource Allocation Planning Service

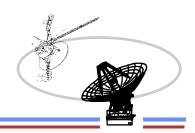


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## **DSN Antenna Downtime Status and Forecast**



## Resource Allocation Planning Service

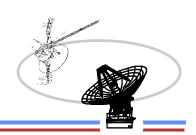


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NHPC Solar Conj NHPC Exit Hibernation NHPC MNVR NHPC Enter Hibernation NHPC AS Atmospheric Occ GSSR Ast 1994 XD NHPC C/O GSSR Ast 2006 CJ NHPC S/W Load NHPC S/W Load NHPC S/W Load NHPC S/W Load NHPC MNVR CAS Saturn Rings Occ VGR1 DTR PB CAS SATITAN CAS STITAN CAS STITAN CAS SATURN CAS SATUR Rings Occ GSSR Ast 1998 ST49 CAS TITAN CAS T		January			April	May	June	July	August	September		November	December
GRAIL AB PRM MSL INST C/O 1 MSL TCM/EDL VEX Drag Pass GRAIL A/B Science MSL Approach MSL Surface Ops DAWN Vesta Orbit DAWN Vesta Depart DAWN Vesta Orbit DAWN Vesta Depart DAWN Vesta Orbit DAWN Vesta Depart DAWN Vesta Depart DAWN Vesta Depart DAWN Vesta Orbit DAWN Vesta Depart DAWN	Weeks		4 5 6 7 8	9 10 11 12 13						36 37 38 39	40 41 42 43	44 45 46 47 48	49 50 51 52
VEX Drag Pass   GRAIL A/B Science   MSL Approach   DAWN Vesta Orbit   DAWN Orbit										/SOL			
DAWN Vesta Orbit    DAWN Vesta Depart   DAWN Vesta Depart   DAWN Vesta Depart   DAWN Forced Coa													
GSSR Ast 1991 VK		VEX D	ag Pass			nce					MSL Surface		
REPL MS   REPL											<u> </u>		Coast
Solid Complex NMC Test   Complex NMC Seal Replacement   Complex NMC		GSSR								DI 140			LIZEDI MO
GSSR Ast Eros GSSR Ast 2011 CP4 MSGR CM GSSR Ast 2007 LE WIND TCM JUNO Peri Maint, GSSR Ast 2007 PC4 CHDR DC GSSR Ast 2001 CQ36 CHDR DC GRAIL A/B ECM CHDR DC CHDR Leonid CHDR DC GRAIL A/B ECM CHDR DC CHDR Leonid CHDR DC GRAIL A/B ECM CHDR DC CHDR Leonid CHDR DC GRAIL A/B ECM CHDR DC CHDR Leonid GRAIL A/B ECM CHDR DC CHDR Leonid GRAIL A/B ECM CHDR DC GRAIL A/B ECM CHDR DC CHDR Leonid GRAIL A/B ECM CHDR DC CHDR D	2042									EPL MS			
Project Events SOHO MNVR GSSR Ast 2000 ET70 CHDR Earth Eclipse  MRO and M010 Relay  SOHO KH WIND TCM  NHPC Enter Hibernation  NHPC Ext Hibernation  NHPC Ext Hibernation  NHPC Solar Conj  NHPC Solar Conj  NHPC Solar Conj  NHPC Radio Occultation  NHPC MNVR GAS STITAN  CAS TITAN  CA						MIND ICM	GSSK Merc (	ZLE WIND T	CM JUNU D	O TOM	IO Der Maint	COOD Act 2007	<u>⊼ Drag</u> Pass
SOHO MNVR   GSSR Ast 2000 ET70   CHDR Earth Eclipse   GSSR Ast 2005 G021   CHDR Earth Eclipse   VEX Drag Pass													
SOHO KH WIND TCM SOHO KH G\$SR Ast 1998 HE3 SOHO KH CHDR ACA DC MESR SOHO KH VGR2 MAGRE SOHO MNVR CAS Saturn Rings Occ SOHO MNVR G\$SR Ast 1998 ST49 ST49 ST49 ST49 ST49 ST49 ST49 ST49	-	SOHO M		Act 2000 FT70 CE	IDD Earth Ec	linea							
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NHPC Enter Hibernation VGR1 DTR PB NHPC Exit Hibernation NHPC Cong. NHPC Exit Hibernation NHPC Cong. NHPC Exit Hibernation NHPC Exit		SOHO KH	WIND TCM	1	SOHO KH	GSSR Ast			CHDR ACA DC	MESR	SOHO KH	VGR2 MA	GROL
NHPC Exit Hibernation   VGR1 DTR PB						NVR							
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NHPC MNVR CAS TITAN CAS ENCELADUS CAS TITAN CAS Saturn Rings Occ CAS TITAN C					NHPC	S/W Load	NHPC 2TWTA	CAS USO R	ecovery Attempt	t			
CAS TITAN CAS TI		NHF	PC Radio Occ	ultation	l		CAS Saturn	Rings Occ	CAS Saturn				
Level 1   Level 2   Level 3   All Others		NHPQ	MNVR CAS	TITAN	CAS EN								
GDSCC  D15 TXR Manifold Upgrade D15Chiller Replacement D26 Antenna Controller Replacement Complex NMC Acceptance Test D25 Antenna Controller Replacement Complex NMC Soak Test Complex NMC Test T0M Tune-up/Cal D14 Plug Seal Replacement -NIB D25 Lightning Survey - NIB Complex NMC Soak Test D24 APCA OP-C - NIB D15 Baldor Amplifier Expansion Board Installation  Complex NMC Soak Test D27 APCA OP-C - NIB D15 Baldor Amplifier Expansion Board Installation  Complex NMC Soak Test D27 APCA OP-C - NIB D15 Baldor Amplifier Expansion Board Installation  Complex NMC Soak Test D27 APCA OP-C - NIB D15 Baldor Amplifier Expansion Board Installation  Complex NMC Soak Test D27 APCA OP-C - NIB D15 Baldor Amplifier Expansion Board Installation  Complex NMC Soak Test D27 APCA OP-C - NIB D15 Baldor Amplifier Expansion Board Installation  Complex NMC Soak Test D27 APCA OP-C - NIB D15 Baldor Amplifier Expansion Board Installation  Complex NMC Soak Test D28 APCA OP-C - NIB D15 Baldor Amplifier Expansion Board Installation  Complex NMC Soak Test D29 - NIB D29								Experiment CA	S TITAN	CA	STITAN C	AS TITAN CA	S TITAN
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Complex NMC Test Complex NMC Test Complex NMC Test Complex NMC Test D24 S-Band Tuner Replacement D24 APCA OP-C - NIB D14 Plug Seal Replacement -NIB D15 Baldor Amplifier Expansion Board Installation  Complex Powerhouse Commission Complex NMC Soak Test DC D - NIB DP S Power Upgrade D45 XTXR Manifold/Waterload Replacement	CDSCC		D26 Anton	 	nlassment	IDCD N				ent 			
Complex NMC Test    D24 S-Band Tuner Replacement	GDSCC					NIB Comple	NV NMC Soak	Toet	y - NID				
CDSCC  Tom Tune-up/Cal D14 Plug Seal Replacement -NIB D15 Baldor Amplifier Expansion Board Installation  Complex Powerhouse Commission  Complex NMC Soak Test DCD - NIB DP S Power Upgrade D45 XTXR Manifold/Waterload Replacement													
CDSCC  D14 Plug Seal Replacement -NIB  D15 Baldor Amplifier Expansion Board Installation  Complex NMC Soak Test  DCD - NIB  DP S Power Upgrade  D45 XTXR Manifold/Waterload Replacement						D24 APCA	OP-C - NIB						
CDSCC  D43 70M Tune-up/Cal DP S Power Upgrade  Complex NMC Soak Test DCD - NIB DP S Power Upgrade  D45 XTXR Manifold/Waterload Replacement							D15	∣ Baldor Ampli	। fier Expansion	Board Instal	l lation		
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	CDSCC	<mark>:</mark>				<u>L</u>							
			DPS Po	wer Upgrade					ent				
					D4	I5 AMP/CW Ins						D43 HE	BA Upgrade
D34 Baldor Amplifier Expansion Board Installation										ard Installati	on		
D34 X/Ka Cooldown - NIB							D34 X/K	a Cooldown	- NIB				
						DOS W			١.				
D63 Grouting D65 XTXR Manifold/Waterload Replacement									eplacement				
D63 70M Tune-up/Cal - NIB  D65 AMP/CW Installation - NIB  D65 Critical Power Reconfiguration  D54 AZ Track Replacement/ACR	MDCCC			163 70M Tune-up	Cai - NIB	D65 AM				DEA AZ T	I-DI		-
D55 Chiller Flush  D63 Emergency Grouting  D54 Lightning Survey - NIB	MDSCC			D5	j 5 Chiller Elu	  eh	Des Critica						1
bus cliner riasi								DOS EINE	l gency Groun	lg D34 Eigh	uning surve	y - NID	1
Complex NMC Soak Test							Com	plex NMC So	ak 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 2			31 32 33 34 35	36 37 38 39	40 41 42 43	44 45 46 47 48	49 50 51 52
Revised: August 28, 2012	Revised:	: August 28, 2											

- 2012 -

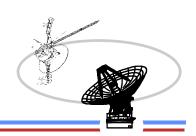




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	2012										
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY				
DSS 54	AZ TRK/ACR Replacement	09/10/2012 05:00	11/29/2012 00:00	80	37 - 48	254	334				
DSS 54	Lightning Survey - NIB	09/10/2012 05:00	11/29/2012 00:00	80	37 - 48	254	334				
DSS 43	HBA Upgrade and Life Extension	11/12/2012 19:00	06/10/2013 07:00	210	46 - 24	317	161				
SPC 40	Powerhouse Commission	12/04/2012 04:15	12/04/2012 07:15	0	49 - 49	339	339				
SPC 40	Powerhouse Commission	12/04/2012 21:00	12/05/2012 00:00	0	49 - 49	339	340				
SPC 40	Powerhouse Commission	12/05/2012 21:00	12/06/2012 00:00	0	49 - 49	340	341				
SPC 40	Powerhouse Commission	12/06/2012 21:00	12/07/2012 00:00	0	49 - 49	341	342				





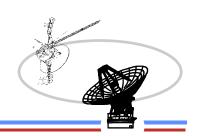
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#### Antenna Downtime Status and Forecast

#### The following are downtimes for 2012

BWG Antenna Controller Replacement  □ DSS-54 ACR and AZ Track Replacement is scheduled for September 10 – November 28, 2012, weeks 37 – 48, 3 days additional requested for elevation balance  □ Lightning Survey will be NIB  □ ECR 11.0070 (Baldor amplifier expansion board installation) was be NIB - Completed prior to downtime
SPC-40 requests 4 blocks of 3 hours each, complex wide downtime for Power House Commission  Week 49 is scheduled, Four days for 3 hours each
DSS-43 HBA Upgrade and Life Extension downtime is scheduled  □ DSS-43 HBA Upgrade downtime is scheduled as one continuous downtime for week 46 of 2012 to week 23 of 2013  □ S-Band Maser Replacement will be NIB □ Power ECO will be scheduled NIB



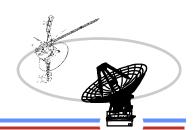


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#### Antenna Downtime Status and Forecast

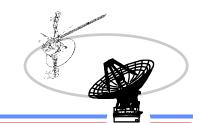
ne following are downtimes for 2013 – 2014
□ SPC-60 requests six 10 hour blocks of complex wide downtime for Power Cutover from January – June of 2013
Downtimes are scheduled for the following weeks
☐ Weeks 13, 17, 22, 26, 30, 34 – prime shift hours are requested.
☐ Weeks 04 and 09 have been replaced with weeks 30 and 34
■ 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
<ul> <li>□ SPC-10 requests four 10-hour blocks of complex wide downtime for G86 Power Cutover and one 12-hour block of downtime for Power Robustness in 2013</li> <li>□ G86 Power cutover downtimes are scheduled for the following weeks</li> <li>□ Weeks 14, 19, 24 and 31– night hours are acceptable.</li> <li>□ Power Robustness is scheduled for the following week</li> <li>□ Week 23 – daylight hours only</li> </ul>
□ SPC-10 requests one 6 – 8 hour complex wide downtime for NMC Automated Link Build (ALB)
Scheduled for March 21, 2013, week 12
☐ Five additional downtimes have been added in weeks 10, 20, 40, 42 and 44





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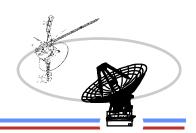
13 – 2014 Downtimes (continued)
<ul> <li>□ SPC-40 request 8 blocks of 3 hours each, complex downtime for Power House</li> <li>Commission in 2013. The following weeks are scheduled</li> <li>□ Five blocks, 3 hours each in April, week 16</li> </ul>
☐ Three blocks, 3 hours each in April/May, week 18
<ul> <li>□ AZ Track Replacement downtime is requested for DSS-24 and DSS-26</li> <li>□ DSS-24 is scheduled for April 8, – June 17, 2013, weeks 15 – 24</li> <li>□ DSS-26 is proposed for March 31 – June 8, 2014, weeks 14 – 23</li> <li>□ Reconfiguration Prep is proposed for March 10 – June 30, weeks 11 – 26</li> <li>□ 80 kW Facility Preparation will be scheduled NIB March 31 – May 18, weeks14 – 20</li> </ul>
□ SPC-40 request a total of 24 hour s of downtime on each antenna for inspection in 2013
<ul> <li>Antennas include DSS-34, 43 and 45</li> <li>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</li> <li>Week 20 inspection times are scheduled for 8 hours NIB to maintenance</li> </ul>



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2013 – 2014 Downtimes (continued)	
<ul> <li>□ DSS-63 downtime for Grouting 2013</li> <li>□ Scheduled for July 15 – August 2, weeks 29 – 31</li> </ul>	
□ Note: Stand alone Grouting typically requires 15 days, however, an additional week has been requested, either on the front or back end.	
<ul> <li>□ DSS-15 Maser Replacement is requested for 2013</li> <li>□ Seventy seven days are scheduled for August 12, – November 4, weeks 33 – 44</li> </ul>	
<ul> <li>□ DCD 4.1 downtime requested for software installation for 2014</li> <li>□ GDSCC and NOCC proposed for January 8, week 02</li> <li>□ CDSCC is proposed for February 20, week 08</li> <li>□ MDSCC is proposed for March 6, week 10 – potentially could be done with DSS-63 HBA downtime</li> </ul>	
<ul> <li>DSS-63 HBA Upgrade and Life Extension downtime is proposed for 2014</li> <li>Proposed for March 10 – October 5, weeks 11 – 40</li> <li>Maser replacement will be NIB</li> </ul>	
☐ SPC-60 request a total of 24 hour s of downtime on each antenna for inspection in 2014	
<ul> <li>Antennas include DSS-54, 55, 63 and 65</li> <li>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</li> <li>Week 31 inspection times are proposed for 8 hours NIB to maintenance</li> </ul>	

## Resource Allocation Planning Service

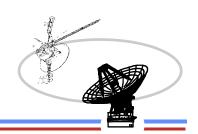


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		Janu			bruary	March	April	May	June	July	August	September			December
Weeks	1	2 3	4 5	6	7 8 9	10 11 12 13	14 15 16 17	18 19 20 21 22	23 24 25 26	27 28 29 30			40 41 42 43 44		49 50 51 52
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	GS	SR A	st AP(	OPHIS	5	KEPL MS	G	SSR Ast 2005 N	DAWN Ceres	SSR Ast 200		R Ast 2007 CI	N26 KEPL QR/M	S MAVEN I	CM
		KEDI	OR/N	15 1	DΔ\WN E	orced Coast	KEPL QF	Z/MS IGSSE	R Ast 2002 OE		ND TCM		DAWN Car	es Coasting	
	L.		WINE	) TCM	1 GSSR	R Ast Camillo	W		SSR Ast 1998		GSSR Ast 200	5 WK4 W	/IND TCM DAWI		ıst
2013	[	CHDF	RDC	KEF	L MS		KH CHDR D	KEPL MS			KEPL MS		KH CHDR DC C		
Key						arth Eclipse			SOHO MN		HDR Earth Eclip		SOHO MNVR		SOHO KH
Project	Г.		NHP(	(RE	( and Hib	pernation Re-l	Entry					O TCM			SOHO MNVF
Events	Ш	NHPO	C&D	H S/V	V Load	VGR2 AS	SCAL/MAGR	OL	JUNO ME FIL		JNO EFB DDOR	JUN	DEFB NHP	C Hibernation	Re-Entry
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14 5					heric Oc		CAS TITAN		TITAN Flyby	CAS TITA	AN Flyby CA	S TITAN Flyb	У	CAS TITA	N Flyby
Key Proj	ect l	_vent	s Lege	end:	Level	1 Level	2 Level	3 All Ot	hers		ı	1	I	ı	
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						Comr		tomated Link E			D1	5 Maser Rep	lacement	1	
<b>GDSCC</b>								lide Power Cut						1	
								Complex V	/ide Power C				Complex NMC		Link Build
						L				Wide Pow			IMC Automated	Link Build	
						Complex N	MC Automat	ed Link Build			Complex Wide				
				+				Comple	x NMC Auton	nated Link E	Build	Com	plex NMC Auto	mated Link	Build
							Comi	l olex Wide Pow	erhouse Com	mission					
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CDSCC					D43 HB	A Upgrade	•							tem Accepta	
					D4	3 Maser Rep	lacement -	NIB D34, 43, 45	Antenna Insp	pection			D35 Syste	ms Integrata	tion Testing
									VGR2 Pr	oof of Perfo	rmance				
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					D55 A	Intenna Con	L troller Renla	l scement							
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MDSCC								Power Cutove	or		Frouting				
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				1				Co	mplex Wide	Power Cut		 	[ 		
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Weeks Revised:		2 3	2012	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	30 37 38 39	40 41 42 43 44	45 46 47 48	49 50 51 52
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- 2013 -

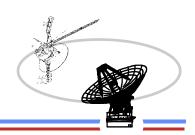




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		2013					
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 55	Antenna Controller Replacement	02/18/2013 00:00	04/04/2013 00:00	45	08 - 14	49	94
DSS 43	Maser Replacement - NIB	02/25/2013 00:00	04/29/2013 00:00	63	09 - 17	56	119
SPC 10	NMC Automated Link Build	03/07/2013 00:00	03/07/2013 06:00	0	10 - 10	66	66
SPC 10	NMC Automated Link Build	03/21/2013 00:00	03/21/2013 06:00	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
SPC 10	Complex Power Cutover	04/01/2013 15:00	04/02/2013 01:00	0	14 - 14	91	92
DSS 24	AZ Track Replacement	04/08/2013 00:00	06/17/2013 00:00	70	15 - 25	98	168
SPC 40	Powerhouse Commission	04/15/2013 21:00	04/16/2013 00:00	0	16 - 16	105	106
SPC 40	Powerhouse Commission	04/16/2013 21:00	04/17/2013 00:00	0	16 - 16	106	107
SPC 40	Powerhouse Commission	04/17/2013 21:00	04/18/2013 00:00	0	16 - 16	107	108
SPC 40	Powerhouse Commission	04/18/2013 21:00	04/19/2013 00:00	0	16 - 16	108	109
SPC 40	Powerhouse Commission	04/19/2013 21:00	04/20/2013 00:00	0	16 - 16	109	110
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 40	Powerhouse Commission	04/29/2013 21:00	04/30/2013 00:00	0	18 - 18	119	120
SPC 40	Powerhouse Commission	04/30/2013 21:00	05/01/2013 00:00	0	18 - 18	120	121
SPC 40	Powerhouse Commission	05/01/2013 21:00	05/02/2013 00:00	0	18 - 18	121	122
SPC 10	Complex Power Cutover	05/06/2013 15:00	05/07/2013 01:00	0	19 - 19	126	127

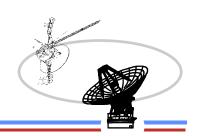




**Jet Propulsion Laboratory California Institute of Technology** 

	2013										
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY				
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 10	NMC Automated Link Build	05/16/2013 00:00	05/16/2013 06:00	0	20 - 20	136	136				
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	06/10/2013 15:00	06/11/2013 01:00	0	24 - 24	161	162				
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				
DSS 63	Grouting - Proposed	07/15/2013 00:00	08/02/2013 00:00	18	29 - 31	196	214				
SPC 60	Complex Power Cutover	07/24/2013 05:00	07/24/2013 17:00	0	30 - 30	205	205				
SPC 10	Complex Power Cutover	07/29/2013 15:00	07/30/2013 01:00	0	31 - 31	210	211				
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	10/03/2013 00:00	10/03/2013 06:00	0	40 - 40	276	276				

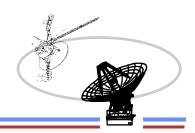




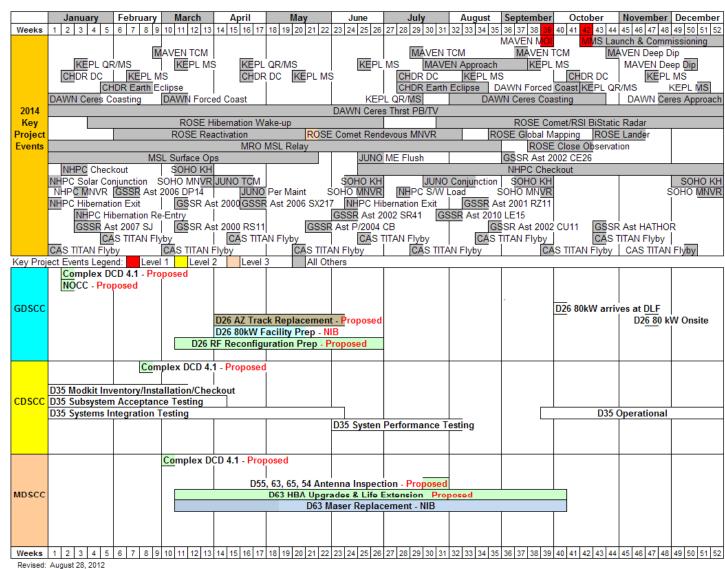
**Jet Propulsion Laboratory California Institute of Technology** 

		2013					
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
SPC 10	NMC Automated Link Build	10/17/2013 00:00	10/17/2013 06:00	0	42 - 42	290	290
SPC 10	NMC Automated Link Build	10/31/2013 00:00	10/31/2013 06:00	0	44 - 44	304	304

#### Resource Allocation Planning Service

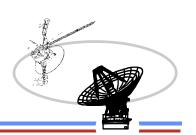


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- 2014 -

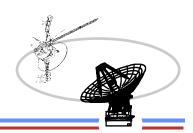




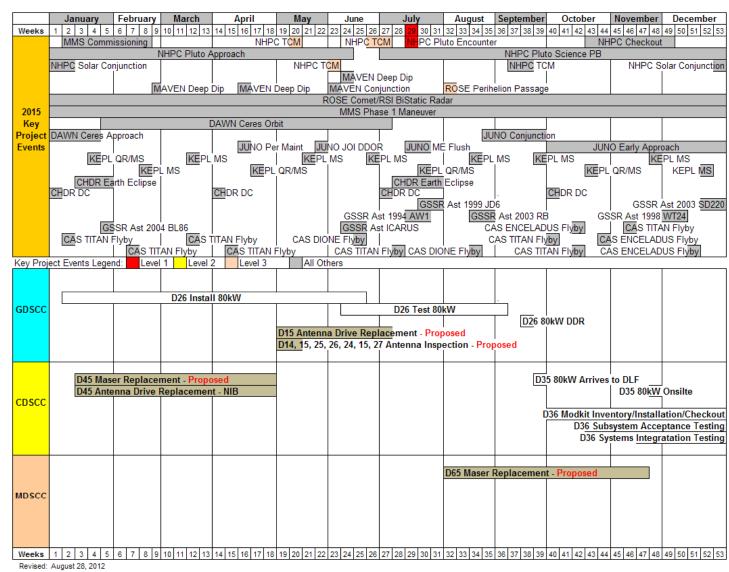
**Jet Propulsion Laboratory California Institute of Technology** 

	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	10/05/2014 00:00	209	11 - 40	69	278				
DSS 63	S-Band Maser Replacement - NIB	03/10/2014 00:00	10/05/2014 00:00	209	11 - 40	69	278				
DSS 26	80 kW Facility Prep - NIB	03/31/2014 00:00	05/18/2014 00:00	48	14 - 20	90	138				
DSS 26	AZ Track Replacement - Proposed	03/31/2014 00:00	06/08/2014 00:00	69	14 - 23	90	159				
DSS 55	Antenna Inspection - Proposed	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				

#### Resource Allocation Planning Service

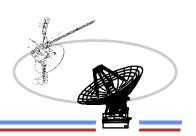


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- 2015 -

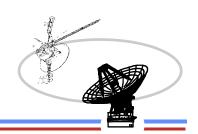




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	2015										
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY				
DSS 45	Antenna Drive Replacement - NIB	01/12/2015 00:00	05/04/2015 00:00	112	03 - 19	12	124				
DSS 45	Maser Replacement - Proposed	01/12/2015 00:00	05/04/2015 00:00	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				



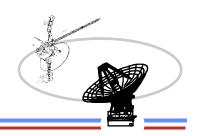


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#### Antenna Downtime Status and Forecast

☐ Maser☐ DS	g are downtimes for 2015 – 2018 Replacement has been requested for 2015 SS-45 is proposed for weeks 03 – 18 ☐ Antenna Drive Replacement will be NIB SS-65 is proposed for weeks 32 – 47
□ D	ntenna Drive Replacement requested PSS-15 Proposed for May 4 − July 6, 2015 weeks, 19 − 27  □ DSS-15 Antenna inspection proposed for weeks 19 and 20 PSS-65 Proposed for August 7 − October 2, 2017, weeks 32 − 39  □ DSS-65 Antenna inspection proposed for weeks 33 and 34
□ A □ W sı	O request a 24 hour downtime on each antenna for inspection in 2015 Intennas include DSS-14, 15, 24, 25, 26 and 27 Week 19 inspection times are proposed for 8 hours NIB to maintenance plus 8 hours wing shift Week 20 inspection times are proposed for 8 hours NIB to maintenance
□ A □ W sı	40 request a 24 hour downtime on each antenna for inspection in 2016 Intennas include DSS-34, 43 and 45 Week 18 inspection times are proposed for 8 hours NIB to maintenance plus 8 hours wing shift Week 19 inspection times are proposed for 8 hours NIB to maintenance

## Resource Allocation Planning Service

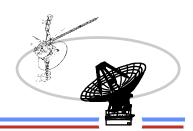


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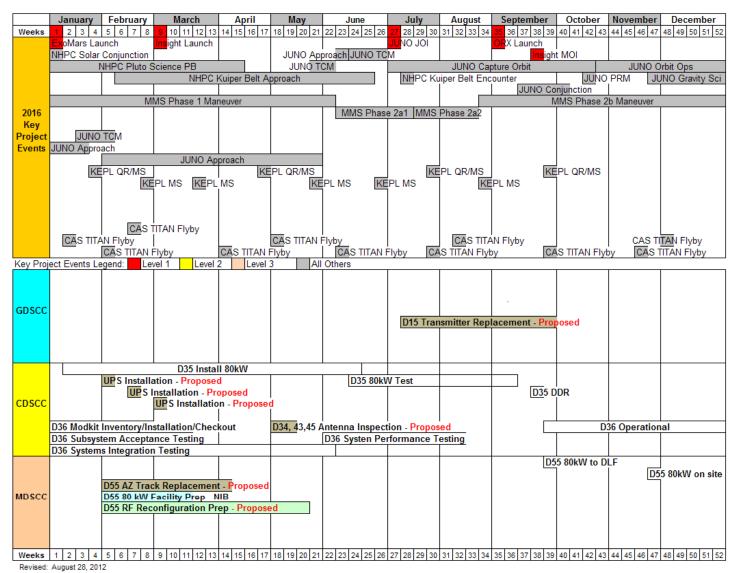
#### **Antenna Downtime Status and Forecast**

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 is scheduled 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
D Proposed for April 30 – July 9, weeks 18 – 27

### Resource Allocation Planning Service

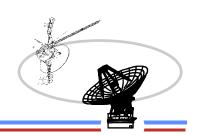


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- 2016 -





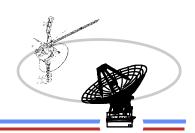
**Jet Propulsion Laboratory California Institute of Technology** 

	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								

- 2017 -

#### Interplanetary Network Directorate (IND) Deep Space Network (DSN)

## Resource Allocation Planning Service

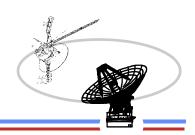


**Jet Propulsion Laboratory California Institute of Technology** 

			uary		Febr			N	Narc	:h		Α	pril		May			June			July		/	Augu	ıst	Se	ptem	ber	October	r	November 44 45 46 47 48	Decembe
Weeks	1	2	3 4		6	7	8	9 1	0 11	12	13	14 15	16 1	7 1	8 19 20	21	22 23	24	25 26	27	28 29	30	31 3	2 33	34 3	5 36	37 38	39	40 41 42	43	44 45 46 47 48	49 50 51
2017 Key		IMS	Phas	e 2	MN b Ma	1S D neuv	isp	osal					JU	NO	Orbit Op	s/G	iravity	Sci											JUNO Dec	orbi	t	
Project Events													CAS	TI	TAN Flyb	ry .																
Key Proj	jec	t Ev	ents L	.eg	end:	L	eve	11	┸	Lev	el 2		Leve	13		All	Other	S		_										_		
GDSCC																																
														T	D4:	5 Tr	ansn	nitter	Rep	lac	emen	t - P	ropo	sed								
CDSCC																																
MDSCC									D5:	5 Ins	tall	80k\	N								D55 T	ost		D5	nten: 4,5 <mark>5</mark> ,	na D 63, 6	5 Ant	enn	acement a Inspecti 5 DDR	on	roposed - Proposed	
Weeks	1	2	3 4		6	7	8	9 1	0 11	12	13	14 15	16 1	7 1	8 19 20	21	22 23	24	25 26	27	28 29	30	31 3	2 33	34 3	5 36	37 38	39	40 41 42	43	44 45 46 47 48	49 50 51

Revised: August 28, 2012





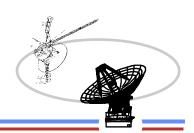
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	2017														
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY								
DSS 45	Transmitter Replacement - Proposed	05/15/2017 00:00	08/07/2017 00:00	84	20 - 32	135	219								
DSS 65	Antenna Drive Replacement - Proposed	08/07/2017 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								

- 2018 -

#### Interplanetary Network Directorate (IND) Deep Space Network (DSN)

## Resource Allocation Planning Service

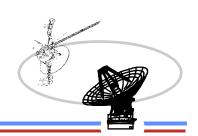


**Jet Propulsion Laboratory California Institute of Technology** 

	Janua	ary	February	March	April	May	June	July	August	September	October	November	December
Weeks	1   2   3	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 ch	49 50 51 52
2018 Key Project Events									P Launch		, SI Laund	ch	
Key Proj	ect Even		D25 AZ Trac	vel 1 Level 2 k Replacement - nstallation - NIB	Proposed		Others	opo <mark>sed</mark>					
CDSCC				D36 Install 8	0kW			D36 80kV	V Test	D36 D	DDR		
MDSCC				D55 Instal	I 80kW			D65 T	80kW		Proposed 5 DDR		
Wooks	1 2 1		5 6 7 0	9 10 11 12 13	14 15 16 17	10 10 20 24	22 22 24 25 20	27 28 20 20	24 22 22 24 25	26 27 20 20	40 41 42 42	44 45 46 47 40	40 50 54 52
Weeks	1 2 3	5 4	5 6 / 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: August 28, 2012

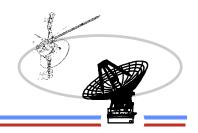




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	2018													
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY							
DSS 25	AZ Track Replacement - Proposed	01/29/2018 00:00	04/09/2018 00:00	70	05 - 15	29	99							
DSS 25	XX/Ka Installation - NIB	01/29/2018 00:00	04/09/2018 00:00	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							

#### Resource Allocation Planning Service



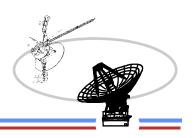
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#### Future assets new/upgrades

DSS	S-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
DS3	S-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	S-35 80kW Installation 2016 – A placeholder has been set awaiting dates
DSS date	S-36 Installation and Operational 2016 – A placeholder has been set awaiting es
DS3	8-55 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



### Resource Allocation Planning Service



Jet Propulsion Laboratory
California Institute of Technology

#### Antenna Downtime Status and Forecast

			S-B	and	X-B	and	Ka-E	Band	Ka Phase 2	X-Band	80KW
Complex	Station	Subnet	Down	Up	Down	Up	Down	Up	rta i ilase z	ACQ AID	OURT
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	۲	*	4	4	4	N/A	•	~	N/A
60	DSS-54	34B1	\	<b>y</b>	`	>	>	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	<b>,</b>	N/A	•	>	N/A	N/A	N/A	N/A	N/A
40	DSS-45	34HEF	1	*	`	`	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	٨	*	*	*	N/A	N/A	N/A	N/A	N/A
40	DSS-43	70M	<b>\</b>	*	*	>	N/A	N/A	N/A	N/A	N/A
60	DSS-63	70M	>	<b>&gt;</b>	~	>	N/A	N/A	N/A	N/A	N/A

N/A = Capability Not Planned

xx/xx/xx = Capability Date Recently Changed

✓ ✓ ✓ = Capability Recently Exists

✓ = Capability Exists

As of: 1/5/2012

\* = To Be Commissioned