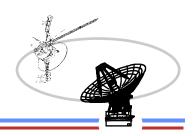
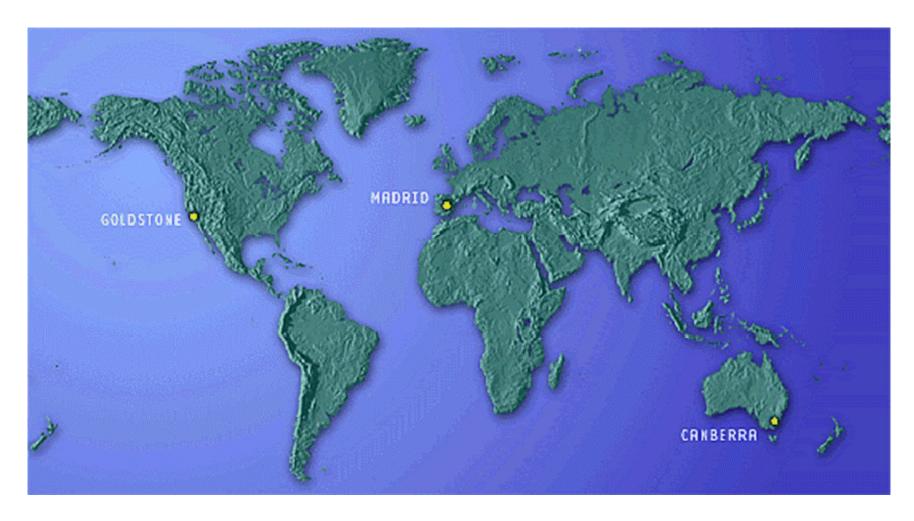


Resource Allocation Planning Service

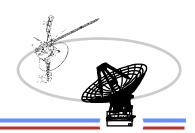


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DSN Antenna Downtime Status and Forecast



Resource Allocation Planning Service

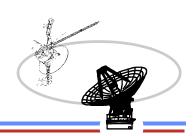


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	Ja	nuary	February	March	April	May		June	July	August	September	October	November	December
Weeks				9 10 11 12 13									44 45 46 47 48	
		MSL		MSL TCM	MSL	FSW Update			G C/O 1	MSL TCM/EDL/				
		AIL A/B F		M\$L INS		MSL TCM/	EDL		ENG C/O 2	MSL EDL			Station Keeping	MNVR
	١	/EX Drag	Pass		AIL A/B Scie	nce			SL Approach			MSL Surface		
				DAWN Ves				DA	AWN Vesta D	epart epart			DAWN Forced	Coast
	C	GSSR A	t 1991 VK	GSSR Venus		BT G	RAIL	A/B OCI	M GSSR A	st 2004 EW9	D. 110		eres Thrust	WED! 110
2042				KEPL MS KE	PL QR/MS	KEPL MS K	EPL N	NS KE	PL QR/MS	KEPL MS KE	PL MS		S KEPL MS	
2012			NO TCM	SSR Ast 2011 CF	MS DDOR	WIND TCM			7 LE WIND T		DSM DTCM JUI		WIND TCM VI GSSR Ast 2007	
Key	6	CHDR DO		MSGR TCM/OC	M CUDD D	COOR ACT	2004 C	AST 2007	CHDR D		A/B ECM	CHDR DO		
Project Events				st 2000 ET70 CH	IDD Earth Ec	linea			st 2005 G021		Earth Eclipse		VEX Drag Pa	
Lvents	30	TIO WIN	/K JOSSK A	31 2000 E170 G1	IDIX Laitii Lu	iipse			M010 Relay	CHER	Lattii Lciipsi	5	VEX Diag F	355
	SOF	HO KH	WIND TCM	T	SOHO KH	GSSR Ast				CHDR ACA DC	MESR	SOHO KH	VGR2 MA	GROL
	001		PC Enter Hi	1	SOHO M					Saturn Rings Oc			R Ast 1998 ST49	
	NHF		dibernation	VGR1 DTR F		NHPC	Check	cout	GSSR A	st 2002 AM31			NHF	C Solar Con
	NHF	C Solar	Conj	NHPC	Exit Hiberna	tion	NHPO	MNVR	NHPC Enter	Hibernation CA	S Atmosphe	ric Occ GS	SR Ast 1994 XD	1 _
	NHF		GSSR Ast 2		NHPC	S/W Load	NHPC	2TWTA	CAS USO R	Recovery Attempt]	DIF TCM	VGR1 DTR PB]
		NHPC	Radio Occu	lltation	l <u>—</u>	CAS TITAN	CAS	Saturn	Rings Occ	CAS Saturn				Rings Occ
		NHPC I	INVR CAS	TITAN		<u>CEL</u> ADUS CA	S TIT	AN CA	AS Saturn Rir	gs Occ	GSSR Ast 1		GSSR Ast	4179 Tout
			CAS TITAN			CAS ENCELA	DUS (Gravity E	xperiment CA	AS TITAN	CAS TITAN	CAS TITAN A	Atmos DE CA	S TITAN
Key Proje	ect E	vents Le	egend: Le	evel 1 Level 2				00.07.4						
				D15 TXR Manif D15Chiller Rep		Complex N			ntenna Inspe	ection				
				DISCINIER Rep	nacement	Complex				 ler Replaceme	l nt			
GDSCC			D26 Anton	। na Controller Re	nlacomont	DCD N			ntning Surve					
GD3CC				NMC Test D26						y - NID				
				nplex NMC Test		D24 S-Ban								
				70M Tun		D24 APCA								
						cement -NIB	Ī		Baldor Ampli	ifier Expansion	Board Instal	lation		
										· '				
			l					Co	mplex NMC	Soak Test				
CDSCC				Tune-up/Cal	_	_			D - NIB					
			DPS Po	wer Upgrade		I5 XTXR Manifo				ent				
					D4	I5 AMP/CW Ins				I	l	ļ	D43 HE	BA Upgrade
							<u> </u>	134 Balo	dor Amplifie	r Expansion Bo	ard Installati	ion		
								J34 X/Ka	a Cooldown	- NIB				
			l n	63 Grouting		Des VT	 VD Ma	nifold/\	 Waterland D	 eplacement				
				63 70M Tune-up/	Cal NIB				waterioad K ation - NIB	epiacement				
MDSCC			D	Tune-up	Cai - Nib	DOJ A				 onfiguration	D54 A7 T	rack Replac	rement/ACD	
WDJCC				D5	ı 5 Chiller Flu	ısh	<u> </u>	Cittical		rgency Groutin		tning Surve		
						Ī			Doo Line		 		15	
								Comp	plex NMC So	ak Test				
								DCD.						
Weeks	1	2 3 4	5 6 7 8	9 10 11 12 13	14 15 16 17	18 19 20 21 22	2 23 2	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
Devised:	Octo	ber 31, 20	12											

- 2012 -

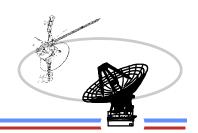




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	2012											
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY					
DSS 54	AZ TRK/ACR Replacement	09/10/2012 05:00	02/18/2013 00:00	161	37 - 08	254	49					
DSS 43	HBA Upgrade and Life Extension	11/12/2012 19:00	06/10/2013 07:00	210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





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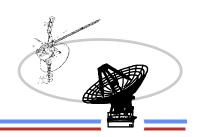
Antenna Downtime Status and Forecast

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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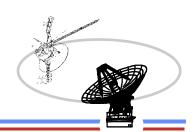


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Antenna Downtime Status and Forecast

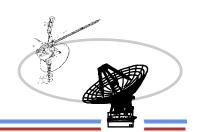
The following are downtimes for 2013 − 2014 □ SPC-60 requests six 10 hour blocks of complex wide downtime for Power Cutover from January − June of 2013 □ Downtimes are scheduled for the following weeks □ Weeks 13, 17, 22, 26, 31, 34 − prime shift hours are requested but not necessary.
 □ BWG Antenna 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 seven12-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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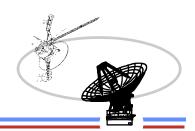
☐ SPC-40 request a total of12 blocks of 3 hours each, complex downtime for Power
House Commission in 2013. The following weeks are scheduled ☐ Four blocks, 3 hours each, 2 consecutive blocks each in weeks 3 and 4 ☐ Five blocks, 3 hours each in May, spilt between weeks 21and 22 ☐ Three blocks, 3 hours 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, weeks14 – 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 hour s 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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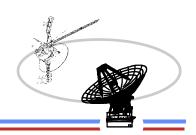


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	January	February	March	April	May	June	July	August	September		November	
Weeks			10 11 12 13	14 15 16 17	18 19 20 21 22	2 23 24 25 26	27 28 29 30			40 41 42 43 44		49 50 51 52
	WIND	TCM						LADEE	Launch		MAVE	EN Launch
	GSSR Ast 2002	AY1	GSSF	Ast 1993 U	c Gss	R Ast 2002 OI	020	LADEE PRM-1	L23 LADEE L	OA WINE	TCM MAV	EN TCM
	GSSR Ast APC				SSR Ast 2005 N	176 G	SSR Ast 200		R Ast 2007 CI		N Forced Coa	
	0001(7131711 0	71110	Di tivil i loice	ou coust Ot	DOI (7 (St 2003 14	DAWN Ceres			11/13/ 2007 01	120	N T OICCG COG	<u> </u>
	IVEDL OD (M	10	IZEDI MO	KEPL QF	D/MO I/EDI				T	DAMAN O-	0	
	KEPL QR/M		KEPL MS		VIVIS KEPL	MS KEPL C	AKUNDI IV	ND TCM	L		res Coasting	
	CHDR DC		Ast Camillo			SSR Ast 1998		KEPL MS KE			IS KEPL MS	
2013		KEPL MS		KH CHDR D			KH CHDR D			KH CHDR DC C	HDR Leonid	
Key	SOHO MNV	R CHDR Ea	arth Eclipse	SOHO MNV	'R	SOHO MN	VR C	HDR Earth Eclip	pse	SOHO MNVR		SOHO KH
Projec	t NHPC	REX and Hit	pernation Re-E	Entry	VGR2 M/	AGROL		JUN	O TCM		5	SOHO MNVF
Events				Ι ,		JUNO ME FIL	ısh .ll	JNO EFB DDOF		DEFB NHP	C Hibernation	
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							face Ops					
	WILDO O L O					IVISE SUI	Tace Ops		0000	A . 4000 F1444	LUUDO OI	
	NHPC Solar Co			VGR1 L3 PB		NHP	C Checkout			Ast 1998 FW4		
	NHPC Hibernati		VGR2 AS	SCAL/MAGR		C Hibernation	Exit NHPC	2TWTA NHP			NHPC Hiber	
	NHPC Chec		S Saturn Atn	n Occ	VGR1 L3 PB	NHPC S/	W Load			VGR1 L3 PB	NHPC MI	NVR
	NHPC MN/	/R CAS TITA	N Gravity Ob	s V0	R2 MAGROL N	IHPC Enc Reh	earsal	GSSR Ast 200	5 WK4 GS	SSR Ast 2002 N	V16	
	CAS Sat	urn Rings/Atn	n Occ	CAS Sat	urn Atm Occ C	AS Saturn Oc	GSSR A	Ast 1999 CF9	GS	SSR Ast 2002 Q	A22 GSSR As	st 2001 AV4
	CAS Saturn	Rings Occ	CAS RHEA	Gravity Obs	CAS Saturn			N Flyby GSS				1
	CAS Saturn Atr	noenheric ∩c	C Taller	CAS TITAN	Flyby CAS	TITAN Flyby	CAS TITA	AN Flyby CA	AS TITAN Flyb		CAS TITAL	N Flyby
Kov Dr	oject Events Lege		1 Level :				UAS III	ANTIYOY CA	NO HIMINITYD	у	CAS IIIA	ч г туру
Key Fi	oject Events Lege	na. Level	Lever				1	Dr	15 M D	I		1
					Frack Replacer			D	15 Maser Rep	lacement	-	
		l —			itomated Link	Build		_				
		Comp	lex Wide Po						Nide Power (1
GDSC			Comp	olex Wide P	ower Cutover	Complex W	ide Power (Cutover	Comp	olex NMC Autor	nated Link B	uild
	(Complex Wi	de Power Cu	utover	Complex Wid	e Power Cute	over Com	olex Wide Pow	er Cutover			ĺ
		Ι.		_	Comp	lex NMC Auto	omated Link	Build	1	Comple	x ALB SOAK	1
	Com	plex NMC A	utomated Li	nk Build	00p	Complex P	ower Robus	tnose				I
	Com		omplex NM(Link Duild			nated Link Bui				
	C1								liu .			
	Complex	x Wide Powe	ernouse Con	imission	Com	plex Wide Po			1			
						Comp	lex Wide P	owerhouse Co			L	
						Щ.			D35	Modkit Invent	ory/Installatio	n/Checkou
CDSC	-		A Upgrade								tem Accepta	
		D4	3 Maser Rep	lacement -	NIB D34, 43, 45	Antenna Ins	pection			D35 Syste	ms Integrata	tion Testing
						VGR2 Pr	oof of Perfo	rmance				
							[
		DEE A	intenna Con	traller Denla	 							
					icement		D.C.2. (
		D55 A	MP Installat		I		D63 G	Grouting				
MDSC					Power Cutov							
	D54 AZ Track F	Replacemen	t/ACR	Co	mplex Wide P			Complex Wid		over		l
						Co	mplex Wide	Power Cutov	er			1
					C	omplex Wide	Power Cut	over	1			1
					_	٦ .			plex Wide P	wer Cutover		1
Weeks	1 2 3 4 5	6 7 8 9	10 11 12 13	14 15 16 17	18 19 20 21 23	2 23 24 25 26	27 28 29 30			40 41 42 43 44	45 46 47 48	49 50 51 50
	d: October 31, 2012	121.1010			1.21.0120 21 22			1 - 1 0 2 0 0 0 7 0 7	20 0. 00 00		1.5 1.5 41 40	.5 55 51 52
LCA12C	a. October 51, 2012											

- 2013 -

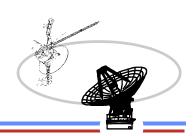




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		2013					
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
SPC 40	Powerhouse Commission	01/14/2013 21:00	01/15/2013 00:00	0	03 - 03	14	15
SPC 40	Powerhouse Commission	01/15/2013 21:00	01/16/2013 00:00	0	03 - 03	15	16
SPC 40	Powerhouse 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
_						Downtime I	November 5. 20

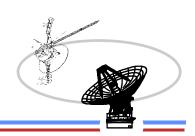




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		2013					
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 34	Antenna Inspection	05/07/2013 22:00	05/08/2013 14:00	1	19 - 19	127	128
DSS 45	Antenna Inspection	05/08/2013 22:00	05/09/2013 14:00	1	19 - 19	128	129
DSS 34	Antenna Inspection	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
	•					Downtime N	lovember 5. 201

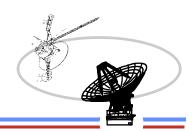




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	2013												
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY						
DSS 63	Grouting - Proposed	07/15/2013 00:00	08/02/2013 17:00	19	29 - 31	196	214						
SPC 10	Complex Power Cutover	07/18/2013 15:00	07/19/2013 03:00	0	29 - 29	199	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						

Resource Allocation Planning Service

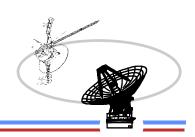


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		I C. b	Manak	A!1	Man	l	la la	A	C	Ostabas	Massachan	D
***	January	February	March	April	May	June	July	August	September			December
Weeks			10 11 12 13	14 15 16 17	18 19 20 21 22	23 24 25 26	27 28 29 30 31		MAVEN MOI		4 45 46 47 48 unch & Comm	
	WIND TO KEPL QF		AVEN TCM	WIND TC		\A/INIE	TCM MAVE		MAVEN TCM	WIND TCM		ilssioning
												D D: #4
	CHDR DC		S KEPL MS	KEPL	QR/MS	KEPL		N Approach				Deep Dip #1
		HDR Earth E	clipse	CHDR	DC KEPL MS			KEPL M		CHDR DC	KEPL	
	SOHO MNVR		D ALAD L E		٤	SOHO MNVR				Coast KEPL Q		KEPL MS
2044	DAWN Ceres C	oasting	DAWN Force	ed Coast			L QR/MS S Thrst PB/TV	DAV	VN Ceres Coa	sting	DAVVIN Cei	res Approach
2014			BOOK			DAVVN Ceres	S Inrst PB/IV		B005.0	. (DOLD:0:		
Key				libernation Wa			140.5	100		met/RSI BiStati		
	VGR1 L3 PB		ROSE Rea			Comet Rend	levous MNVR	I R		apping ROS		
Events					MSL Relay					Close Observa	tion	
			L Surface Op			JUNO	ME Flush		GSSR Ast 2			
	NHPC Chec		SOHO KH						NHPC Chec	ckout		
	NHPC Solar Co	njunction S	OHO MN <u>VR</u>				JUNO	Conjunction	SOHO KH		_	SOHO KH
	NHPC MNVR				Per Maint		NHPC S/W I		SOHO MNVR		*	OHO MNVR
	NHPC Hibernat			t 2000 GSSR	Ast 2006 SX21		pernation Exit		st 2001 RZ11			
		bernation Re			0000		002 SR41 GS			01144		<u> </u>
		st 2007 SJ		t 2000 RS11		Ast P/2004			SR Ast 2002		R Ast HATHO	R
		S TITAN FI		CAS TITA			ITAN Flyby	CAS	TITAN Flyby		TITAN Flyby	
I/ D :	CAS TITAN Fly		CAS TITAN		CAS TITA		CAS TITA	AN Flyby	CA	S TITAN Flyby	CAS IIIAN	Flyby
Key Proj	ect Events Lege	nd: Level		2 Level 3	All Ot	hers						
	NOCC - Pro		posea									
	NOCC - Pro	posea										
CDCCC		ı							-	D2C 0014W	DI E	
GDSCC				D2C 47 T	l. D l					D26 80kW arri		 W Onsite
				DZ6 AZ ITAC	k Replacement acility Prep - N	t - Proposed					D2 <u>6 8</u> 0 K	vv Onsite
					ıration Prep - N							
			D20 I	Kr Keconingt	iration Frep - F	Toposeu						
		Com	play DCD 4	1 - Proposed							+	
	Comple	x NMC ALB		 								
	D35 Modkit Inv			ckout								
CDSCC	D35 Subsysten			CROUL								
32000	D35 Systems I					<u>'</u>				D35	Operational	
	,	J	_			D35 Systen	Performance T	estina -				
								g				
	Co	mplex NMO	ALB SOAK									
	_] '		CD 4.1 - Prop	osed							
				D55	, 63, 65, 54 Ante	enna Inspect	ion - Proposed					
MDSCC					D63 HBA Upgra	ades & Life E	xtension - Pro	oosed				
					D63 N	laser Replac	ement - NIB					
Weeks	1 2 3 4 5	6 7 8 9	10 11 12 13	14 15 16 17	18 19 20 21 22	23 24 25 26	27 28 29 30 31	32 33 34 35	36 37 38 39	40 41 42 43 44	4 45 46 47 48	49 50 51 52
Revised:	October 31, 2012											

- 2014 -

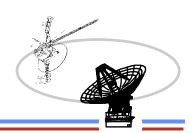




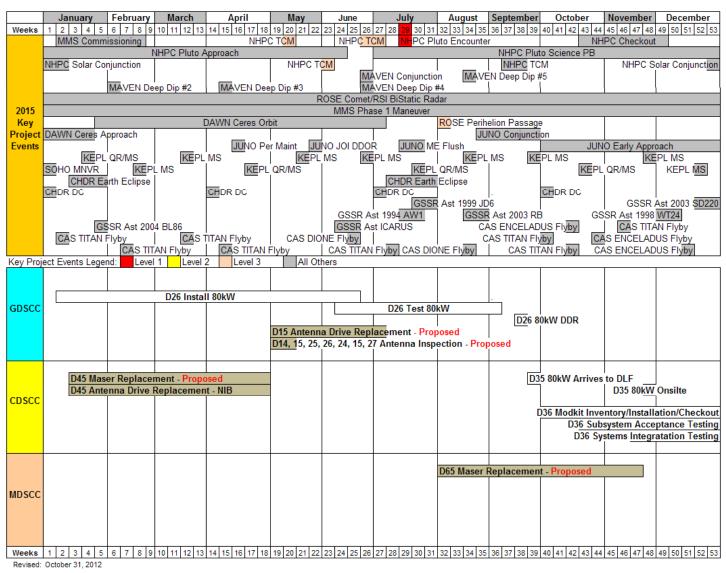
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		2014					
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
GCF 20	DCD 4.1 - Proposed	01/08/2014 23:10	01/09/2014 05:10	0	02 - 02	8	9
SPC 10	DCD 4.1 - Proposed	01/08/2014 23:10	01/09/2014 05:10	0	02 - 02	8	9
SPC 40	DCD 4.1 - Proposed	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

Resource Allocation Planning Service

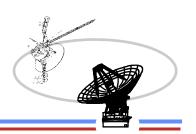


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- 2015 -

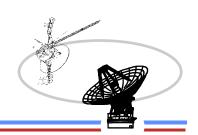




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		2015					
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 45	Antenna Drive Replacement - NIB	01/12/2015 00:00	05/04/2015 00:00	112	03 - 19	12	124
DSS 45	Maser Replacement - Proposed	01/12/2015 00:00	05/04/2015 00:00	112	03 - 19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



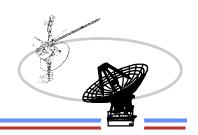


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Antenna Downtime Status and Forecast

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

Resource Allocation Planning Service



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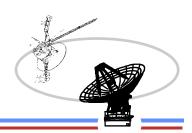
Antenna Downtime Status and Forecast

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 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

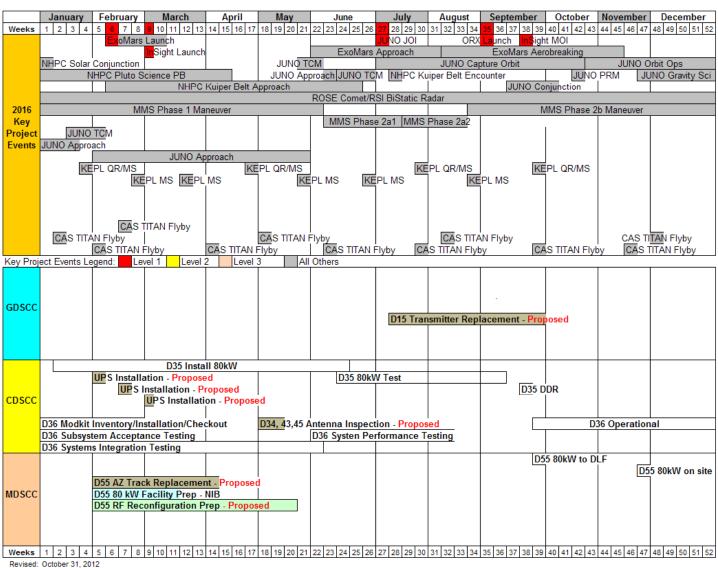
- 2016 -

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

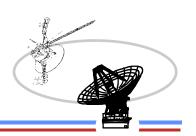
Resource Allocation Planning Service



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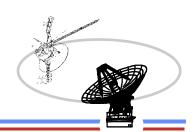
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		2016					
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 55	80 kW Facility Prep - NIB	02/01/2016 00:00	03/20/2016 00:00	48	05 - 11	32	80
DSS 55	AZ Track Replacement - Proposed	02/01/2016 00:00	04/10/2016 00:00	69	05 - 14	32	101
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)



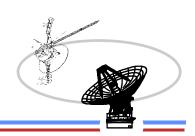


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		lan	Jary		Feh	ruar	v		Mar	rch		Δ	pril		N	lay			Jun	e		July		Διι	gust	Ser	otemb	er	Oct	ober	ı	lovem	ber	Decem	ner
Weeks			3 4			7		Q	10 4	1 11	13	14 15	16	17	18 10	20	21	22 2	3 24	25 24	27	28 20	30	31 32 3	3 34 25	36	37 38	30	40 44	42 42	3 44	45 46	47 49	49 50 51	52
WEEKS	'		3 3			MS I				11 12	2 13	14 13	, 101	17	10 13	, 20	21	22 2	3 24	25 20	21	20 23	30	31 32 3	50 54 55	30	51 50	33	40 41	42 43	3 44	45 40	47 40	49 30 31	JZ.
	M	MS	Phas	e 2	b Ma	aneu	ver	034	•																										
2017													Jl	JNO	Orbi	it Op	s/G	ravit	y Sc	i															
Key Project Events																													JUNC) Deort	bit				
															T 4 N I	F																			
Key Proj	oct	E _{1//}	onto I	000	and:		Leve	J 1		1.	evel 2)		/el 3	TAN	Flyb	ΔII	Othe	re																—
GDSCC																																			
CDSCC																D4	5 11	rans	mitte	er Kej	olace	ment	I - P	ropose	a										
	D65 Antenna Drive Replacement - Proposed D54,5,63, 65 Antenna Inspection - Propose								ed																										
MDSCC									υ.	<i>55</i> II	istal									1		D55 T	est	80kW				D5	5 DDF	₹					
Weeks	1	2	3 4		1 6	7	8	9	10 1	1 12	13	14 15	16	17	18 19	20	21	22 2	3 24	25 20	27	28 29	30	31 32 3	3 34 35	36	37 38	39	40 41	42 43	3 44	45 46	47 48	49 50 51	50
Devised:						1	U	J	10 1	1 12	-113	14 13	10	17	10 10	/ 20	21	22 2	0 24	20 20	21	20 25	50	01 02 0	0 04 00	30 ,	3, 30	00	70 41	72 40	777	40 40	-7 -0	-0 00 01	1,

Revised: September 28, 2012





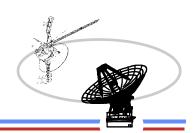
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	2017													
Site	Details	Start	Duration (Days)	Weeks	Start DOY	End DOY								
DSS 45	Transmitter Replacement - Proposed	05/15/2017 00:00	08/07/2017 00:00	84	20 - 32	135	219							
DSS 65	Antenna Drive Replacement - Proposed	08/07/2017 00:00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

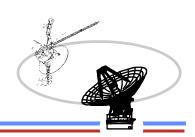


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	January	February	March	April	May	June	July	August	September	October	November	December
Weeks	1 2 3 4	5 6 7 8	9 10 11 12 13	14 15 16 17	18 19 20 21	22 23 24 25 26	27 28 29 30	31 32 33 34 35 SPP Launch	36 37 38 39	40 41 42 43 JWST Launc	44 45 46 47 48	49 50 51 52
2018 Key Project Events								F Laurich		31 Lauric		
Key Proj	ect Events Le	D25 AZ Trac	vel 1 Level 2 ck Replacement - nstallation - NIB	Proposed		Others nstallation - Pro	<mark>opo</mark> sed					
CDSCC			D36 Install 8	0kW			D36 80kV	V Test	D36 D	DR		
MDSCC			D55 Instal	I 80kW			D65 T	ransmitter Rep 80kW		roposed 5 DDR		
10/1-	4 5 5 4	5 0 7 0	0 40 44 45 45	44 45 40 43	40 40 00 01	22 22 24 25 22	27 20 20 20	24 22 22 24 25	20 27 20 22	40 44 40 40	44 45 40 47 40	40 50 54 50
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: September 28, 2012

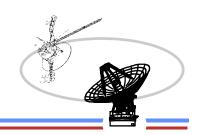




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	2018													
Site	Details	Start	End	Duration (Days)	Weeks	Start DOY	End DOY							
DSS 25	AZ Track Replacement - Proposed	01/29/2018 00:00	04/09/2018 00:00	70	05 - 15	29	99							
DSS 25	XX/Ka Installation - NIB	01/29/2018 00:00	04/09/2018 00:00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

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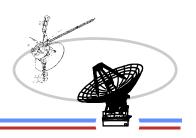
DSS-35 Installation and Operational 2013 - 2014

Future assets new/upgrades

_		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	S-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



Resource Allocation Planning Service



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Antenna Downtime Status and Forecast

			S-B	and	Х-В	and	Ka-E	Band	Ka Phase 2	X-Band	80KW
Complex	Station	Subnet	Down	Up	Down	Up	Down	Up	Na Filase 2	ACQ AID	OURVV
10	DSS-27	34HSB	>	>	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10	DSS-24	34B1	۲	>	>	4	N/A	N/A	•	•	N/A
40	DSS-34	34B1	۲	>	*	4	4	N/A	•	~	N/A
60	DSS-54	34B1	۲	>	•	•	۲	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	1	>	~	•	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

✓ ✓ ✓ = Capability Recently Exists

✓ = Capability Exists

As of: 1/5/2012

* = To Be Commissioned