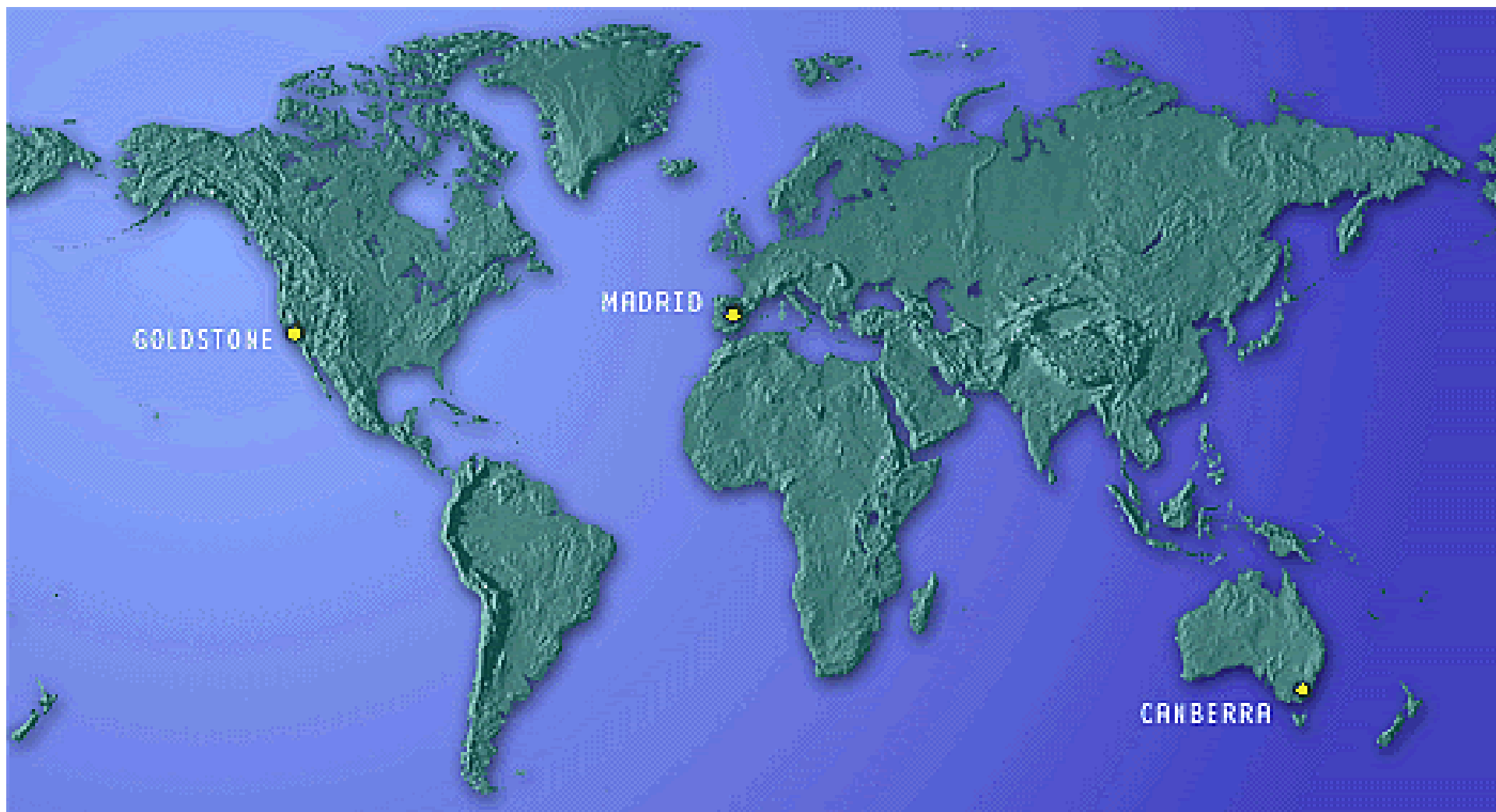
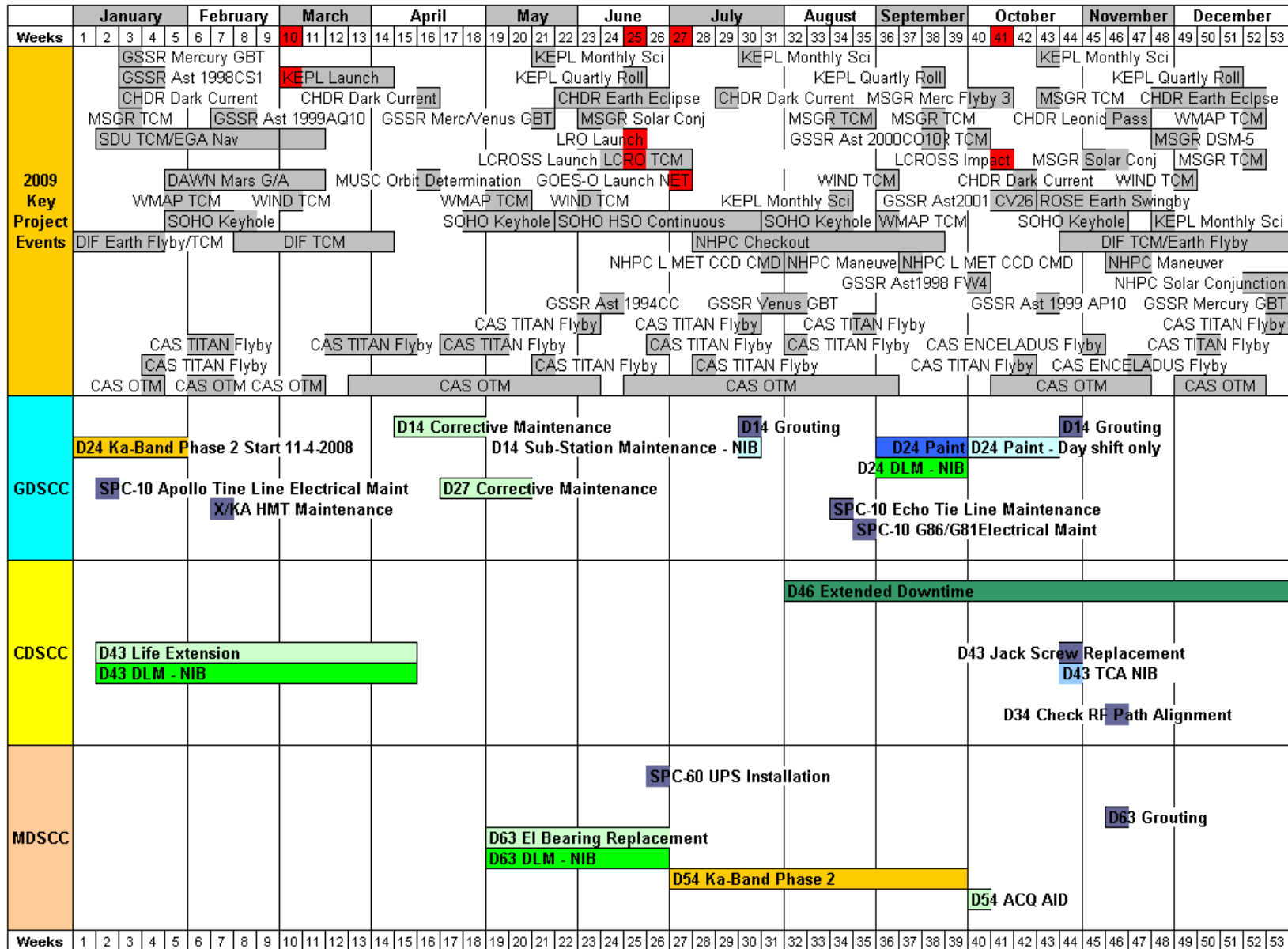


# DSN Antenna Downtime Status and Forecast



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

# Antenna Downtime Status and Forecast 2009



Revised: October 1, 2009



# Antenna Downtime Status and Forecast

## The following are downtimes for 2009 and 2010

- ❑ DSS-54 downtime for Ka-Band Phase 2 is scheduled for June 29 through September 29, 2009, weeks 27 – 40.
- ❑ DSS-54 downtime for ACQ AID installation is scheduled for September 30-October 4 week 40.
  - ❑ TERRA tracks scheduled.
- ❑ DSS-43 Additional downtime scheduled for Jackscrew Replacement and Transmitter Controller Assembly (TCA) for October 26-November 1, 2009 week 44
  - ❑ The Jackscrew Replacement is scheduled DOY 299/0000 to 303/0000
  - ❑ The TCA is scheduled for DOYs 299/0000 to 303/0500 and DOYs 303-305/2100-0500 each day
- ❑ DSS-14 Grouting is planned for October of 2009 week 44.
  - ❑ 3-day grouting is proposed for DOYs 302-304 in week 44
  - ❑ The schedule is clear for this downtime
  - ❑ Project scheduled this downtime in same week as the downtime at DSS-43
- ❑ DSS-24 downtime for painting is scheduled August 31 through October 25, 2009, weeks 36 - 43
  - ❑ There was completion of 24/7 downtime for the first 4 weeks and dayshift downtime (1400-0200) for the remaining weeks.
  - ❑ Depot Level Maintenance was scheduled the first 4 weeks of this downtime
  - ❑ LCROSS Lunar impact October 9, DOY 282 will be supported
    - ❑ Painting has been suspended for DOYs 280-283

# Antenna Downtime Status and Forecast

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

- ❑ DSS-63 is downtime for grouting is scheduled for November 10-16, 2009, weeks 46 and 47.
  - ❑ This was requested by a level 3 New Horizons hibernation track to start on Tuesday of week 46 and end on Monday of week 47.
  - ❑ All conflicts have been cleared
- ❑ Christmas closure request
  - ❑ GDSCC requests 359 0800-0800 - Local California time is Midnight December 24/25 to Midnight December 25/26
  - ❑ CDSCC requests 358 0800-0800 - Local California time is 12:00 a.m. to 12:00 a.m. December 24 to December 25. Local Canberra time is 7:00 p.m. to 7:00 p.m. December 24 to December 25
  - ❑ MDSCC requests 358 2100-2100 - Local California time is 1:00 p.m. to 1:00 p.m. December 24-December 25. Local Madrid time is 10:00 p.m. to 10:00 p.m. Dec 24-Dec 25
- ❑ There will be no station closure over the New Year holiday
- ❑ DSS-34 downtime for Azimuth Track Replacement is scheduled January 18 through April 11, 2010, weeks 3 – 14.
  - ❑ Additional time needed due to increased precision in resource planning
  - ❑ This also includes M1-5 Mirror Alignment and M5 Support Ring Replacement
- ❑ DSS-63 downtime for Gearbox Strut Installation is proposed for February 1 through February 6 2010, week 5
  - ❑ Downtime to complete the two lower gearbox struts, backup roller installation and install the tension struts.
  - ❑ Requesting Transmitter Controller Assembly (TCA) upgrade and grouting to run NIB to downtime

# Antenna Downtime Status and Forecast

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

- ❑ SPC-10 downtime requested bi-monthly for 14 hour DSCC Power Substation (DPS) Maintenance in February Week 6, DOY 039 and April week 12, DOY 102, 2010
  - ❑ Beginning June 2010, 14 hour DPS Maintenance are requested monthly
- ❑ 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
- ❑ SPC-60 downtime requested for power upgrade May-July 2010 time frame
  - ❑ Request 2 sets of 3 consecutive 12-hour blocks of dayshift time
- ❑ 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, but should not be a problem
- ❑ SPC-40 downtime requested for Electrical Upgrade for 2010 & 2011
  - ❑ Request 12-hour complex downtime per occurrence once per month
  - ❑ Requesting August, September, October and November 2010
  - ❑ Requesting February, March and April 2011
- ❑ 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 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												LADEE Launch								GSSR Ast 2002 AM31								GSSR Ast 4179 Tout																							
	GSSR Ast 1991 VK								GRAIL A/B Science																																											
	NHPC Beacon																NHPC Checkout												NHPC Beacon																							
	NHPC Solar Conjunction																				MSL INST Checkout 2								MSL EDL/TCM				NHPC Solar Conjunction																			
					MSL TCM								MSL FS Checkout 2				MSL FSW Update				MSL Approach																															
												MSL TCM								MSL Surface Ops				MRO MSL Relay																												
GDSCC																	<b>D26 Antenna Controller Replacement - Proposed</b>												<b>D24 AZ Track Replacement - Proposed</b>																							
																													<b>D25 Antenna Controller Replacement - Proposed</b>																							
CDSCC																																																				
MDSCC																																																				

Revised: October 1, 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 Earth Eclipse				CHDR Dark Current				CHDR Dark Current				CHDR Earth Eclipse				CHDR Dark Current				CHDR Dark Current				CHDR Dark Current				CHDR Dark Current				CHDR Dark Current														
	JUNO Cruise										JUNO Cruise										JUNO ME Flush										JUNO TCM																					
	MRO MSL Relay																																																			
	NHPC Solar Conjunction										NHPC Checkout										NHPC DDOR										NHPC DDOR										NHPC Beacon											
											NHPC Maneuver																																									
GDSCC																																																				
CDSCC																																																				
MDSCC																																																				

Revised: October 1, 2009

# Antenna Downtime Status and Forecast 2014

	January					February				March				April				May				June				July				August				September				October				November				December						
Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
2014 Key Project Events	CHDR Dark Current					CHDR Earth Eclipse				CHDR Dark Current				JWST Launch				CHDR Dark Current				DAWN Ceres Coastin				DAWN Forced Coast				DAWN Ceres Approach																						
	DAWN Ceres Coastin									DAWN Ceres ThrstPB				DAWN Ceres ThrstTV																																						
						JUNO TCM								JUNO Cruise																																						
														JWST Operations																																						
GDS																																																				
CC																																																				
MS																																																				
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: October 1, 2009

# Antenna Downtime Status and Forecast

## The following are downtimes for 2011 through 2013

- ❑ DSS-15 downtime for Pintle Bearing has been moved to 2011 weeks 2-9, January 10 through March 6.
  - ❑ DSS 15 Elevation Gearbox Replacement will be scheduled NIB during downtime
- ❑ 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 mid January through May of 2013, weeks 3 – 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 – This may move due to MSL Launch
  - ❑ DSS-26 is proposed for March 5-25 2012 weeks 10-12
  - ❑ DSS-34 is proposed for June 11 through July 8 2012 weeks 24-27
  - ❑ DSS-55 is proposed for January 14 to February 10, 2013 weeks 3-6
- ❑ 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-24 is proposed for September 3 through November 11, 2012, weeks 36-45
  - ❑ DSS-54 is proposed that this be scheduled for March 25 through June 2, 2013, weeks 13-23
    - ❑ This includes Antenna Controller Replacement task
  - ❑ DSS-55 is scheduled for July 1 through September 8, 2013, weeks 27-36.
  - ❑ DSS-25 is scheduled for July 1 through November 10, 2013, weeks 36-45.
  - ❑ DSS-26 is scheduled for March 3 through May 4, 2014 weeks 10-18.

# Antenna Downtime Status and Forecast

## DSN Resource Implementation Planning Matrix by Subnet

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

N/A = Capability Not Planned      xx/xx/xx = Capability Date Recently Changed      As of: 08/11/09  
 ✓✓✓ = Capability Recently Exists      ✓ = Capability Exists      \* = To Be Decommissioned