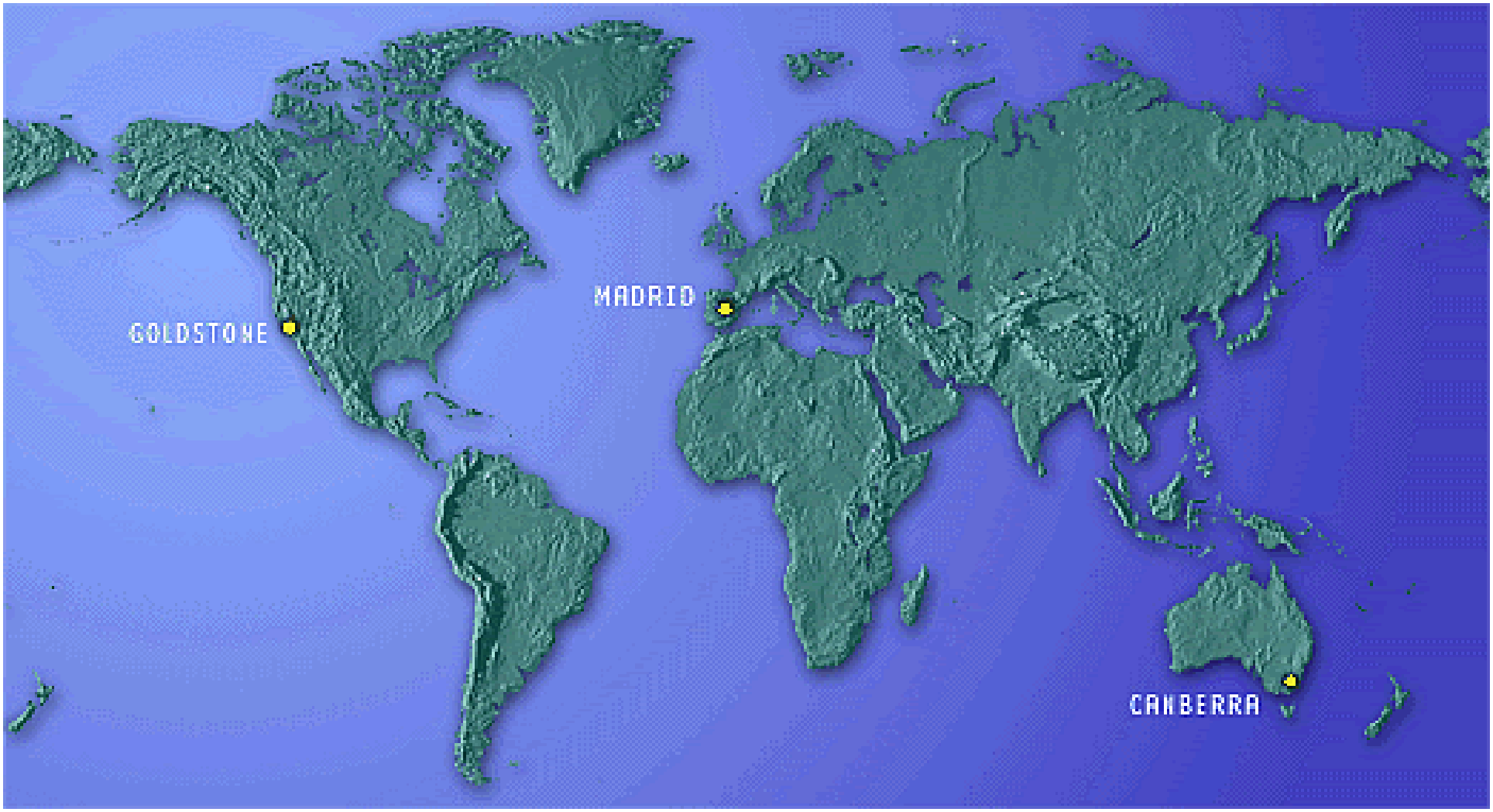
DSN Antenna Downtime Status and Forecast



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

Antenna Downtime Status and Forecast

The following tasks were approved at the August 2006 INCF RAR

Approved Downtime In 2007

- DSS-43 10-day downtime for Grouting & Painting in weeks 05 - 06 of 2007 (DOY033-042).
- DSS-65 Antenna Drive Cabinet Refurbishment change to add 4 weeks to the existing downtime. Changing the downtime period from weeks 09 –13 of 2007 to weeks 09 – 17 2007 and add 200W transmitter installation task as NIB.
- DSS-66 8-day downtime for Hydraulic Pumps in weeks 18 – 19 of 2007 (DOY 120 - 128).
- DSS-46 8-day downtime for Hydraulic Pumps in weeks 27 – 28 of 2007 (DOY 183 - 191).

Approved Downtime In 2008

- DSS-54 X/X-Ka Band Installation for weeks 08 – 15 in 2008 (DOY 049-104).
- DSS-15 proposed 10-week downtime for Life Extension task in weeks 11 – 20 of 2007 (DOY 070 - 139).
- DSS-43 proposed 26-week downtime for Life Extension task in weeks 40 of 2008 – 13 of 2009 (DOY 273 - 088).

Approved Downtime In 2009

- DSS-63 proposed 26-week downtime for Life Extension task in weeks 14 – 39 of 2009 (DOY 089-270).
- DSS-14 proposed 26-week downtime for Life Extension task in weeks 40 of 2009 – 13 of 2010 (DOY 271 - 094).

Antenna Downtime Status and Forecast

Changes to 2006 Downtime Schedule

- It has been requested of DSN Scheduling to schedule a 4-day downtime for DSS-14 Low Power Transmitter. DOY 106 – 110 have been successfully scheduled and de-conflicted for this task.
- It has been requested to schedule a 3-day downtime for DSS-26 USC Acceptance Testing. Tentatively scheduled in week 35 DOY 241/000z - 243/0000z.
- It has been requested to schedule a 1-day downtime for DSS-15 USC Acceptance Testing. Tentatively scheduled during DSS-15 ADCR Task DOY 247/000z - 254/0000z.
- It has been requested to schedule a 2-day downtime for DSS-14 USC Acceptance Testing. Tentatively schedule in week 40.

Changes to 2007 Downtime Schedule

- There are no outstanding downtime requests for 2007.

Changes to 2008 Downtime Schedule

- It has been requested of RAPS to extend the currently scheduled DSS-54 X/X-Ka downtime for weeks 08 – 15 by an additional 4 weeks.

Changes to 2009 Downtime Schedule

- There are no outstanding downtime requests for 2009.

All previous downtime proposals have been agreed to by all DSN Missions/Users through the INCF/RAR, JURAP or Mid-Range Scheduling Process

Antenna Downtime Status and Forecast

Depot Level Maintenance

DSMS has implemented a plan to increase the reliability of DSN antennas through Depot Level Maintenance (DLM). This will require a 4 week downtime for each 70-meter and 34-meter antenna within a 48 month period.

The following DLM Tasks have been added to existing approved downtimes:

2006

- DSS-45 Weeks 41 – 45

2007

- DSS-65 Weeks 14 – 17
- DSS-63 Weeks 24 – 27

2008

- DSS-15 Weeks 10 – 13
- DSS-54 Weeks 14 – 17
- DSS-43 Weeks 40 – 43

The following Antennas will also be scheduled for a 4 week DLM:

Goldstone

- DSS-14
- DSS-24
- DSS-25
- DSS-26

Canberra

- DSS-34

Madrid

- DSS-55

Antenna Downtime Status and Forecast

Major DSN Downtimes by Date

03/09/2006 16:11 UTC Time

Thursday, March 09, 2006 1:09:34 PM Your Local Time

2006

Site	Description	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 16	Extended Downtime	01/30/2006 16:00	12/31/2009 23:59	1432	05 - 53	030	365
DSS 14	20kW S-Band Transmitter	04/16/2006 21:15	04/20/2006 21:15	4	15 - 16	106	109
DSS 63	Antenna Controller Replacement	05/22/2006 00:00	10/01/2006 23:59	133	21 - 39	142	274
DSS 63	NIB - HBA Oil Condition Unit	05/22/2006 00:00	06/18/2006 23:59	28	21 - 24	142	169
DSS 15	Antenna Drive Cabinet Refurbishment	09/04/2006 00:00	10/08/2006 23:59	35	36 - 40	247	281
DSS 15	NIB - USC Acceptance Testing	09/04/2006 16:00	09/05/2006 16:00	1	36 - 36	247	247
DSS 45	Antenna Controller Replacement	10/08/2006 22:00	12/10/2006 23:59	64	40 - 49	281	344

2007

Site	Description	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 43	Regrout and Painting	02/01/2007 00:00	02/11/2007 23:59	10	05 - 06	032	041
DSS 65	Antenna Drive Cabinet Refurbishment	02/26/2007 00:00	04/29/2007 23:59	63	09 - 17	057	119
DSS 65	NIB - S-Band 200W U/L Install	02/26/2007 00:00	04/29/2007 23:59	63	09 - 17	057	119
DSS 66	Hydraulics Task	04/30/2007 00:00	05/08/2007 23:59	9	18 - 19	120	128
DSS 63	Hydrostatic Bearing Replacement	06/12/2007 00:00	09/16/2007 23:59	97	24 - 37	163	259
DSS 46	Hydraulics Task	07/02/2007 00:00	07/10/2007 23:59	9	27 - 28	183	191
DSS 45	Antenna Drive Cabinet Refurbishment	08/27/2007 00:00	09/30/2007 23:59	35	35 - 39	239	273
DSS 45	NIB - S-Band 200W U/L Install	08/27/2007 00:00	09/30/2007 23:59	35	35 - 39	239	273

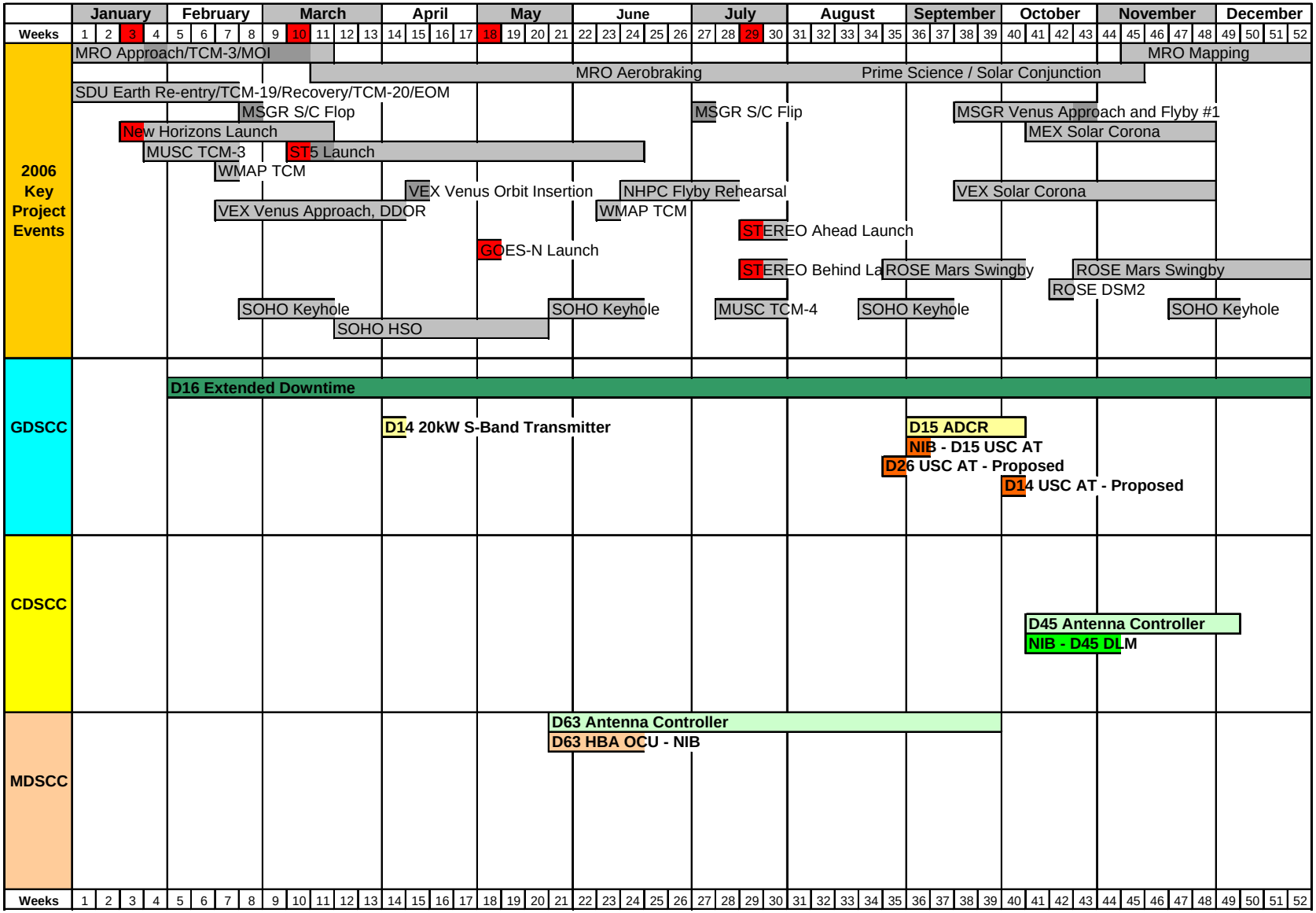
2008

Site	Description	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 54	X/X-Ka Band Install	02/18/2008 00:00	04/13/2008 23:59	56	08 - 15	049	104
DSS 54	NIB - AZ Track Refurbishment	02/18/2008 00:00	04/13/2008 23:59	56	08 - 15	049	104
DSS 54	NIB - AZ Data Gear Replacement	02/18/2008 00:00	04/13/2008 23:59	56	08 - 15	049	104
DSS 54	NIB - Q-Band Installation	02/18/2008 00:00	04/13/2008 23:59	56	08 - 15	049	104
DSS 15	Life Extension	03/03/2008 00:00	05/11/2008 23:59	70	10 - 19	063	132
DSS 43	Life Extension	09/29/2008 00:00	03/29/2009 23:59	182	40 - 13	273	088

2009

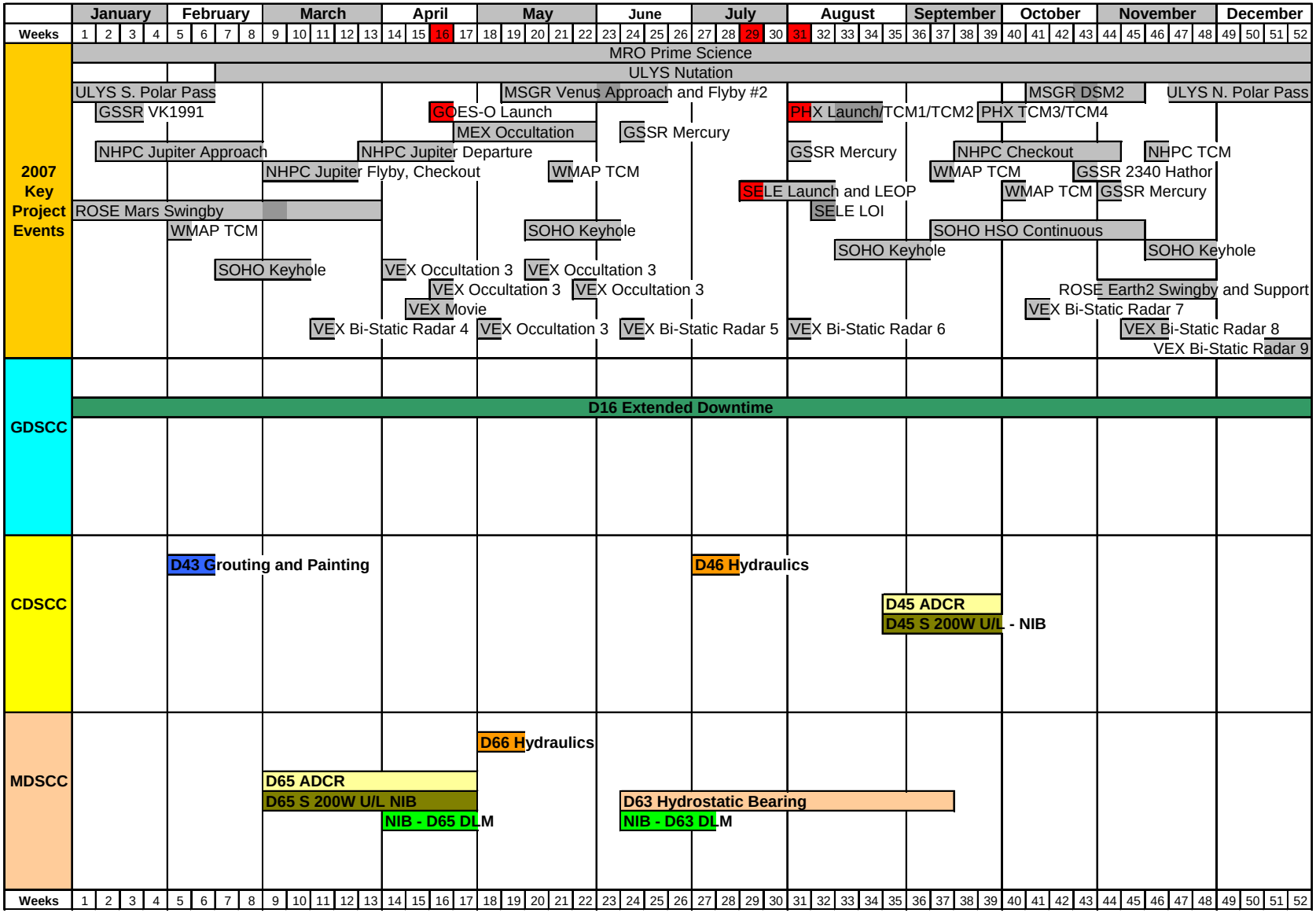
Site	Description	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
DSS 63	Life Extension	03/30/2009 00:00	09/27/2009 23:59	182	14 - 39	089	270
DSS 14	Life Extension	09/28/2009 00:00	03/28/2010 23:59	182	40 - 12	271	087

Antenna Downtime Status and Forecast 2006



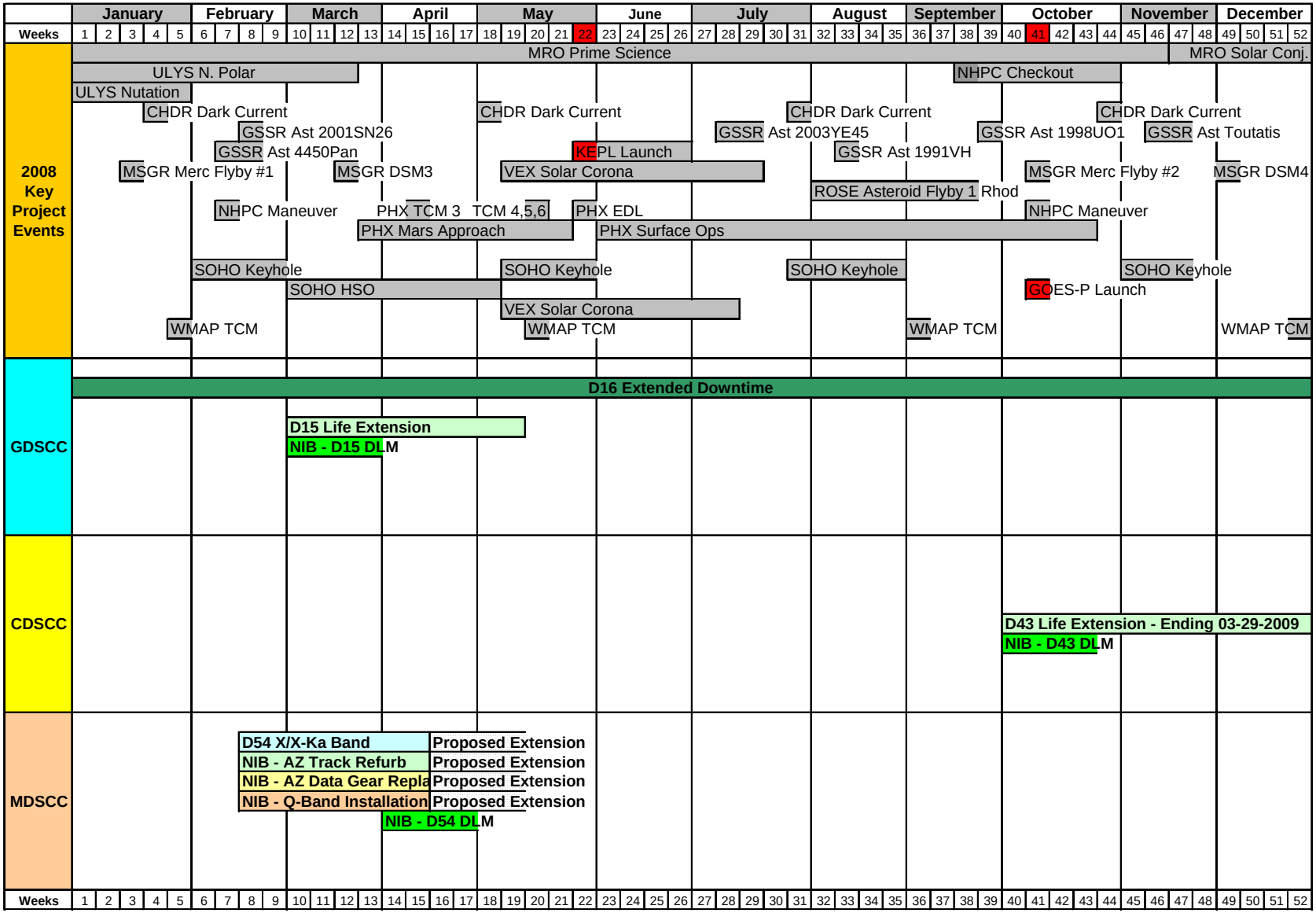
Revised: March 15, 2006

Antenna Downtime Status and Forecast 2007



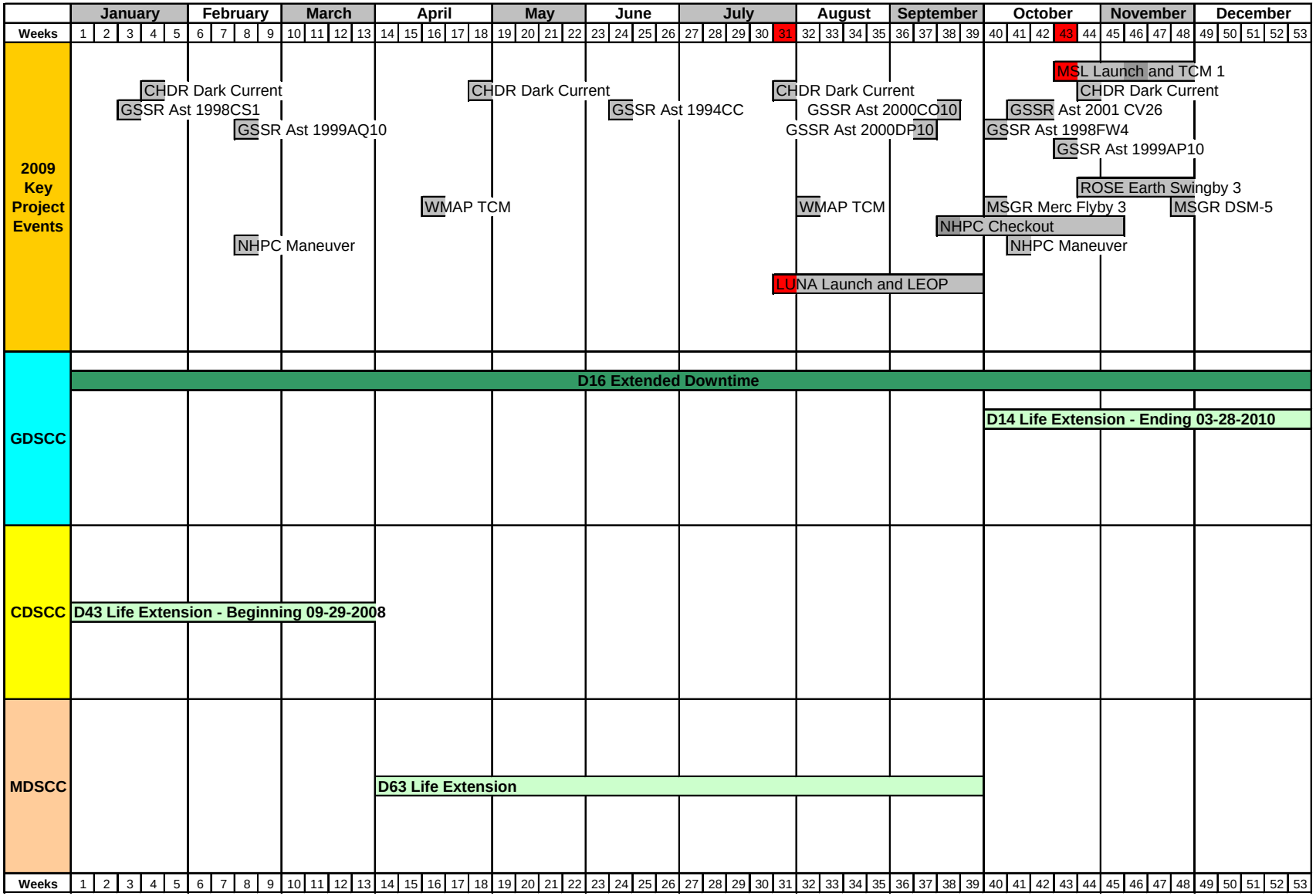
Revised: March 17, 2006

Antenna Downtime Status and Forecast 2008



Revised: March 17, 2006

Antenna Downtime Status and Forecast 2009



Revised: March 17, 2006

Antenna Downtime Status and Forecast

DSN Resource Implementation Planning Matrix By Complex

Complex	Station	Subnet	S-Band Down	S-Band Up	X-Band Down	X-Band Up	Ka-Band Down	Ka-Band Up	NSP/ TT&C
10	DSS-14	70M	✔	✔	✔	✔	N/A	N/A	✔
10	DSS-15	34HEF	✔	N/A	✔	✔	N/A	N/A	✔
10	DSS-16	26M	✔	✔	N/A	N/A	N/A	N/A	N/A
10	DSS-24	34B1	✔	✔	✔	✔	N/A	N/A	✔
10	DSS-25	34B2	N/A	N/A	✔	✔	✔	✔	✔
10	DSS-26	34B2	N/A	N/A	✔	✔	✔	N/A	✔
10	DSS-27	34HSB	✔	✔	N/A	N/A	N/A	N/A	✔✔✔
40	DSS-34	34B1	✔	✔	✔	✔	✔✔✔	N/A	✔
40	DSS-43	70M	✔	✔	✔	✔	N/A	N/A	✔
40	DSS-45	34HEF	✔	N/A	✔	✔	N/A	N/A	✔
40	DSS-46	26M	✔	✔	N/A	N/A	N/A	N/A	N/A
60	DSS-54	34B1	✔	✔	✔	✔	04/15/08	N/A	✔
60	DSS-55	34B2	N/A	N/A	✔	✔	02/15/06	N/A	✔
60	DSS-63	70M	✔	✔	✔	✔	N/A	N/A	✔
60	DSS-65	34HEF	✔	N/A	✔	✔	N/A	N/A	✔
60	DSS-66	26M	✔	✔	N/A	N/A	N/A	N/A	N/A

N/A = Capability Not Planned xx/xx/xx = Capability Date Recently Change As of: 02/02/06

✔✔✔ = Capability Recently Exists ✔ = Capability Exists