



**JOINT USERS RESOURCE ALLOCATION PLANNING
(JURAP) MEETING**

JUNE 21, 2001

Jet Propulsion Laboratory
California Institute of Technology

4800 Oak Grove Drive
Pasadena, CA 91109-8099

(818) 354-4321



July 5, 2001

Refer to: 930-01-010-ESB:lc

TO: Distribution

FROM: Eugene S. Burke

SUBJECT: Minutes for the Joint Users Resource Allocation Planning Committee Meeting held June 21, 2001.

NEXT JURAP MEETING:

Thursday, July 19, 2001

JPL Bldg. 303, Room 411 B 1:00 p.m.

Attendees:

R. Bartoo	K. Kim	P. Tay
B. Compton	N. Lacey	J. Valencia
D. Doody	G. Martinez	K. Yetter
J. Hall	M. Slade	

The Joint Users Resource Allocation Planning Committee meets monthly to review the status of Flight Projects, the requirements of other resource users, and to identify future requirements and outstanding conflicts. The last regular meeting was held on June 21, 2001 at the Jet Propulsion Laboratory.

Introductory Remarks – Nap Lacey for E. Burke

Gene Burke was on business travel during the Week of June 18, 2001. Napoleon Lacey chaired the meeting and began by welcoming everyone to the JURAP. In preparation for the August Resource Allocation Review Board conference, Nap reviewed and underscored the importance of keeping with the posted Resource Allocation Review Time-Line.

Special Report: Ted Peng – Deep Space S-Band Uplink vs. IMT2000 at Madrid, Canberra, Goldstone

No oral presentation was given, but the presentation material is attached.

DSN Operations – J. Hodder (No oral presentation – material available in document)

Resource Analysis Team - K. Kim for F. Leppla

A link pointing to the Resource Allocation Review Time-Line has been added to the August 2001 Resource Allocation Review Board (RARB) RAPWEB page. In addition, Week 34 was released to the DSN on June 26, 2001, and Week 35 is due for release June 25, 2001. Weeks 43-47 are in the negotiation process and MADB/TIGRAS testing and training continues.

DSS Downtime Forecast – J. Valencia

The DSS-16 servo drive replacement task is rescheduled for December 2001. In addition, the Ka-band encoder (mechanical) installation task was added on a non-interference basis to the existing Network Simplification Plan (NSP) task at all BWG antennas. Downtimes for DSS-14 and DSS-65 Antenna Controller Replacement tasks are in the schedule as proposals only. The request for downtime at DSS-43 and DSS63 for the Antenna Controller Replacement task is under study for sometime in 2005.

Goldstone Solar System Radar - M. Slade

DSS-14 successfully supported nine radar observations of binary near Earth Asteroid 1999 KW4, in May 2001. In addition, eight Mars Exploration Rover landing site validation tracks were successfully supported using radar interferometry between DSS-14, DSS-13, DSS-25.

Radio Astronomy / Special Activities - G. Martinez

Three Time and Earth Motion Precision Observations (TEMPO) and two Cat M & E observations were successfully supported in May 2001, with 97% and 100% of data time utilized. In addition, two Continuous Observations of the Rotation of the Earth (CORE) were supported at DSS-45 and DSS-15, with 99% of data time utilized.

FLIGHT PROJECTS REPORTS

Galileo – B. Compton

Galileo operations successfully completed Ganymede 29 encounter and playback of calibration data. A baseline voltage anomaly was observed with the Solid State Imaging (SSI) camera. The project uplinked commands to execute a power cycle and instrument reload to clear the SSI anomalous condition. Memory problems with the Near Infrared Mapping Spectrometer (NIMS) and Energetic Particle Detector (EPD) were cleared after the Project uplinked commands to execute a memory reload.

Deep Space 1 (DS1) – K. Moyd (No oral presentation – material enclosed)

Stardust - R. Ryan (No oral presentation – material enclosed)

Voyager – J. Hall

Voyager 1 and Voyager 2 operational status is nominal, and overall DSN support is good. Voyager 1 heliocentric distance is 81.4 astronomical units (AU) with a Round Trip Light Time (RTLTL) of approximately 22h 20m. Voyager 2 heliocentric distance is 64.3 Au with a RTLTL of approximately 17h 35m.

Cassini - D. Doody

Cassini Operations are essentially nominal. Minor S/C instrument anomalies and recoveries are worked in near-real-time, as required. The Quiet Cruise Sub-phase is ongoing and will continue through July 8, 2002. The Huygens Recovery Task Force has developed a plan to resolve the Huygens probe S-band Doppler anomaly. In part, the plan calls for delaying the release of the Huygens probe until orbit three. Currently, the probe release is scheduled for February 2005.

Mars Mission Management Office (MMO) - E. Brower (No oral report – material enclosed)

Ulysses - I. J. Webb (No oral presentation – material enclosed)

U.S. Space VLBI – V. Altunin (No report)

International Solar Terrestrial Program (ISTP), ACE and IMAGE – R. Dutilly, GSFC (No oral report – material enclosed)

The next JURAP meeting will be held:

**Thursday, July 19, 2001, at JPL
in Bldg. 303, Room 411, at 1:00 p.m.**

Special Reports will be presented by Allen Berman regarding the Genesis Project; and Robert Dutilly (GSFC), with a special report regarding the Polar Maneuver Scheme.

Note: If you would like to participate in the meeting via teleconference, call (818) 354-2626 any time during meeting and you will be connected.

ACE

Afkhami, F. GSFC m/s 428.2
 Machado, M. J. GSFC m/s 428.2
 Myers, D. A. GSFC m/s 428.2
 Sodano, R. J. GSFC m/s 581.0

Canberra Deep Space Communications Complex

Churchill, P. CDSCC
 Jacobsen, R. CDSCC
 O'Brien, J. J. CDSCC
 Ricardo, L. CDSCC
 Robinson, A. CDSCC
 Wiley, B. CDSCC

Cassini

Arroyo, B. 264-235
 Chin, G. E. 230-310
 Doody, D. F. 230-310
 Frautnick, J. C. 230-301
 Gustavson, R. P. 230-301
 Maize, E. H. 230-104
 Mitchell, R. T. (PM) 230-205
 Webster, J. L. 230-104

Chandra

Gage, K. R. SAO
 Lavoie, A. R. (PM) MSFC Org. FD03
 Marsh, K. SAO
 Weisskopf, M. C. (PS) MSFC Org. SD50
 Wicker, D. SAO
 Wright, G. M. MSFC Org. FD03

Deep Space 1

Hunt, J. C. 230-207
 Moyd, K. I. 230-207
 Rayman, M. D. (PM) 230-207
 Tay, P. 264-235
 Yetter, K. E. 264-235

Galileo

Compton, B. 230-102
 Huynh, J. C. 230-102
 McClure, Jr., J. R. 230-102
 Medina-Gussie, M. 301-371
 Paczkowski, B. G. 230-260
 Pojman, J. L. 238-538
 Theilig, E. E. (PM) 264-525

Genesis

Arroyo, B. 264-235
 Burnett, D. S. CIT 170-25
 Hirst, E. A. 301-180
 Sasaki, C. N. (PM) 264-370
 Sweetnam, D. N. 264-370
 Tay, P. 264-235
 Yetter, K. E. 264-235

Goldstone Deep Space Communications Complex

Holmgren, E. DSCC-25
 Massey, K. DSCC-61
 McConahy, R. DSCC-33
 McCoy, J. DSCC-57
 Mischel, D. DSCC-37
 Sturgis, L. DSCC-33

Goldstone Orbital Debris Radar (GODR)

Goldstein, R. M. (PM) 300-227

Goldstone Solar System Radar (GSSR)

Haldemann, A. F. 238-420
 Hills, D. L. 238-420
 Ostro, S. J. (PS) 300-233
 Slade, III, M. A. (PM) 238-420
 Wolken, P. R. 507-105

Gravity Probe-B

Keiser, M. (PS) Stanford Univ.
 Shapiro, Prof. I. I. Harvard Univ.

IMAGE

Abramo, C. A. 507-120
 Burley, R. J. GSFC m/s 632.0
 Green, J. L. GSFC m/s 630

ISTP (Cluster II)

Abramo, C. A. 507-120
 Chang, A. F. 264-844
 Christensen, J. L. GSFC m/s 404.0
 Dutilly, R. N. GSFC m/s 581.1
 Gurnett, D. U. of Iowa
 Mahmot, R. E. (Acting PM) GSFC m/s 444.0
 Pickett, J. U. of Iowa

ISTP (GEOTAIL/POLAR/SOHO/WIND)

Abramo, C. A. 507-120
 Alexander, H. 502-320
 Bush, R. I. Stanford Univ.
 Carder, M. E. GSFC 450.C
 Chang, A. F. 264-844
 Dutilly, R. N. GSFC m/s 581.1
 Hearn, S. P. GSFC m/s 450.C
 Johnston, S. S. GSFC m/s 444.0
 Mahmot, R. E. GSFC m/s 444.0
 Milasuk-Ross, J. GSFC m/s 428.5
 Miller, K. A. GSFC m/s 450.C
 Mish, W. H. GSFC m/s 690.0
 Nace, E. M. GSFC m/s 450.8
 Pukansky, S. M. GSFC m/s 450.C

Madrid Deep Space Communications Complex

Chamarro, A. MDSCC
 Rosich, A. MDSCC

JPL/General

Burgess, L. N.	230-107
Burton, M. E.	169-506
Finley, S. G.	11-116
Gershman, R.	264-440
Holladay, J. A.	303-404
Jurgens, R. F.	238-420
Kahn, P. B.	301-486
Kliore, A. J.	161-260
Kobrick, M.	300-233
Moore, W. V.	161-260
Morabito, D. D.	161-260
Naudet, C. J.	238-600
Resch, G. M.	238-600
Robbins, P. E.	161-260
Silva, A.	149-200
Smith, J. L.	301-180
Taylor, A. H.	264-538
Toyoshima, B.	301-276
Winterhalter, D.	169-506
Woo, H. W.	126-110
Yung, C. S.	238-808

MAP

Abramo, C. A.	507-120
Citrin, E. A. (PM)	GSFC m/s 410.2
Coyle, S. E.	GSFC m/s 581.0
Dew, H. C.	GSFC m/s 423.0

Mars Exploration Rover (MER A & B)

Adler, M.	T-1723
Arroyo, B.	264-235
Chadbourne, P.	230-207
Crisp, J. A. (PS)	241-105
Erickson, J. K.	T-1723
Roncoli, R. B.	301-140L
Theisinger, P. C. (PM)	301-455

Mars Express Orbiter

Horttor, R. L. (PM)	238-540
Thompson, T. W.	300-227

Mars Global Surveyor

Arroyo, B.	264-235
Brower, E. E.	264-235
Thorpe, T. E. (PM)	264-214
Yetter, K. E.	264-235

Mars Program Office

Cutts, J. A.	264-426
Jordan, Jr., J. F.	264-472
McCleese, D. J.	264-426
Naderi, F. M.	264-438

Mars Reconnaissance Orbiter Project

Arroyo, B.	264-235
Graf, J. E. (PM)	264-440
Johnston, M. D.	301-140L
Lock, R. E.	301-140L

Mars 2001 Odyssey Mission

Arroyo, B.	264-235
Harris, J. A.	301-455
Mase, R. A.	264-380
Nakata, A. Y.	264-235
Pace, Jr., G. D. (PM)	264-255
Spencer, D. A.	264-255

NASA Headquarters

Costrell, J. A.	Code MT
Geldzahler	Code SR
Hertz, P.	Code SR
Holmes, C. P.	Code SR
Spearing, R. E.	Code M-3

NASA/ARC/General

Campo, R. A.	ARC 244-14
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NASA/GSFC/General

Barbehenn, G. M.	GSFC m/s 440.8
Levine, A. J.	GSFC m/s 452.0
Martin, J. B.	GSFC m/s 451.0

NASA/SOMO

Dalton, J. T.	GSFC m/s 720.0
Downen, A. Z.	303-400
Hall, V. F.	JSC Code TG
Morse, G. A.	JSC Code TA
Thompson, E. W.	JSC Code GA

NOZOMI (Planet B)

Chang, A. F.	264-844
Tay, P.	264-235
Yetter, K. E.	264-235

Outer Planets/Solar Probe

Ludwinski, J. M.	301-335
Simpson, K.A.	301-335

Radio Astronomy

Klein, M. J. (PM)	303-402
Kuiper, T. B. (PS)	169-506
Martinez, G.	507-120
Wolken, P. R.	507-105

Space Infrared Telescope Facility (SIRTF)

Arroyo, B.	264-235
Ebersole, M. M.	264-767
Gallagher, D. B. (PM)	264-767
Kwok, J. H.	264-767

StarLight Mission

Deutsch, M. C.	301-250D
Linfield, R. P. (PS)	301-486
Livesay, L. L. (PM)	301-451
Spradlin, G. L.	303-402

Stardust

Duxbury, T. C. (PM)	264-379
Ryan, R. E.	301-285
Tay, P.	264-235
Yetter, K. E.	264-235

DSMS / General

Coffin, R. C.	303-400
Doms, P. E.	303-400
Polansky, R. G.	303-400
Squibb, G. F.	303-400
Stelzried, C. T.	303-407

DSMS / Mission Management Office

Rosell, S. N.	264-235
Varghese, P.	264-235

DSMSEngineering

Freiley, A. J.	303-404
Kimball, K. R.	303-404
Klose, J. C.	303-404
Kurtik, S. C.	303-210
Osman, J. W.	303-210
Sible, Jr., R. W.	303-404
Statman, J. I.	303-404

DSMS Operations

Almassy, W. T.	502-420
Covate, J. T.	507-120
Dillard, D. E.	507-120
Frazier, R.	507-120
Gillam, I. T.	502-400
Green, J. C.	507-120
Hodder, J. A.	303-403
Knight, A. G.	507-120
Landon, A. J.	507-105
Martinez, G.	507-120
Nevarez, R. E.	502-400
Recce, D. J.	303-403
Roberts, J. P.	502-400
Salazar, A. J.	303-403
Schroeder, H. B.	507-120
Short, A. B.	507-120
Wackley, J. A.	303-403
Waldherr, S.	507-120
Watzig, G. A.	502-420
Wert, M.	502-420

DSMS Plans & Commitments

Abraham, D. S.	303-402
Altunin, V. I.	303-402
Bathker, D. A.	303-402
Benson, R. D.	264-844
Berman, A. L.	264-844
Beyer, P. E.	264-844
Black, C. A.	303-402
Cesarone, R. J.	303-402
Chang, A. F.	264-844
Gillette, R. L.	264-844

Griffith, D. G.	303-402
Holmes, D. P.	264-844
Kazz, G. J.	303-402
Luers, E. B.	303-402
Miller, R. B.	303-402
Peng, T. K.	303-402
Poon, P. T.	264-844
Slusser, R. A.	264-844
Wessen, R. R.	264-844
Yetter, B. G.	264-844

DSMS RAPSO

Bartoo, R. H.	301-285
Borden, C. S.	301-165
Burke, E. S.	303-403
Caputo, R.	514-200
Hampton, E.	600-174
Hincy, W.	600-174
Hungerford, R. M.	301-285
Kehrbaum, J. M.	301-180
Kim, K.	600-174
Lacey, N.	600-174
Leppla, F. B.	600-174
Lineaweaver, S.	600-174
Martinez, K. A.	600-174
Morris, D. G.	303-403
Valencia, J.	600-174
Wang, Y-F.	301-165
Zendejas, S. C.	301-165

Ulysses / Voyager

Bray, T. L.	264-114
Brymer, B. F.	264-114
Cummings, A. C.	CIT 220-47
Hall, Jr., J. C.	264-801
Massey, E. B. (PM)	264-801
Nash, J. C.	264-114
Smith, E. J. (PS - ULS)	169-506
Webb, I. J.	264-114

U.S. Space VLBI

Altunin, V. I.	303-402
Miller, K. J.	264-828
Smith, J. G. (PM)	264-828

YOHKOH

Chang, A. F.	264-844
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Other Organizations

Crimi, G. F.	SAIC
Laemmel, G.	DLR-GSOC
Wanke, H.	DLR-GSOC

Please mark any additions, deletions, or corrections to this distribution list and return to:

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Joint Users Resource Allocation Planning Committee

SPECIAL REPORT

Deep Space S-Band Uplink vs. IMT2000 at Madrid, Canberra, Goldstone

Ted Peng

June, 2001

Ted.k.peng@jpl.nasa.gov

Agreement between NASA and Spanish MCT January 2001

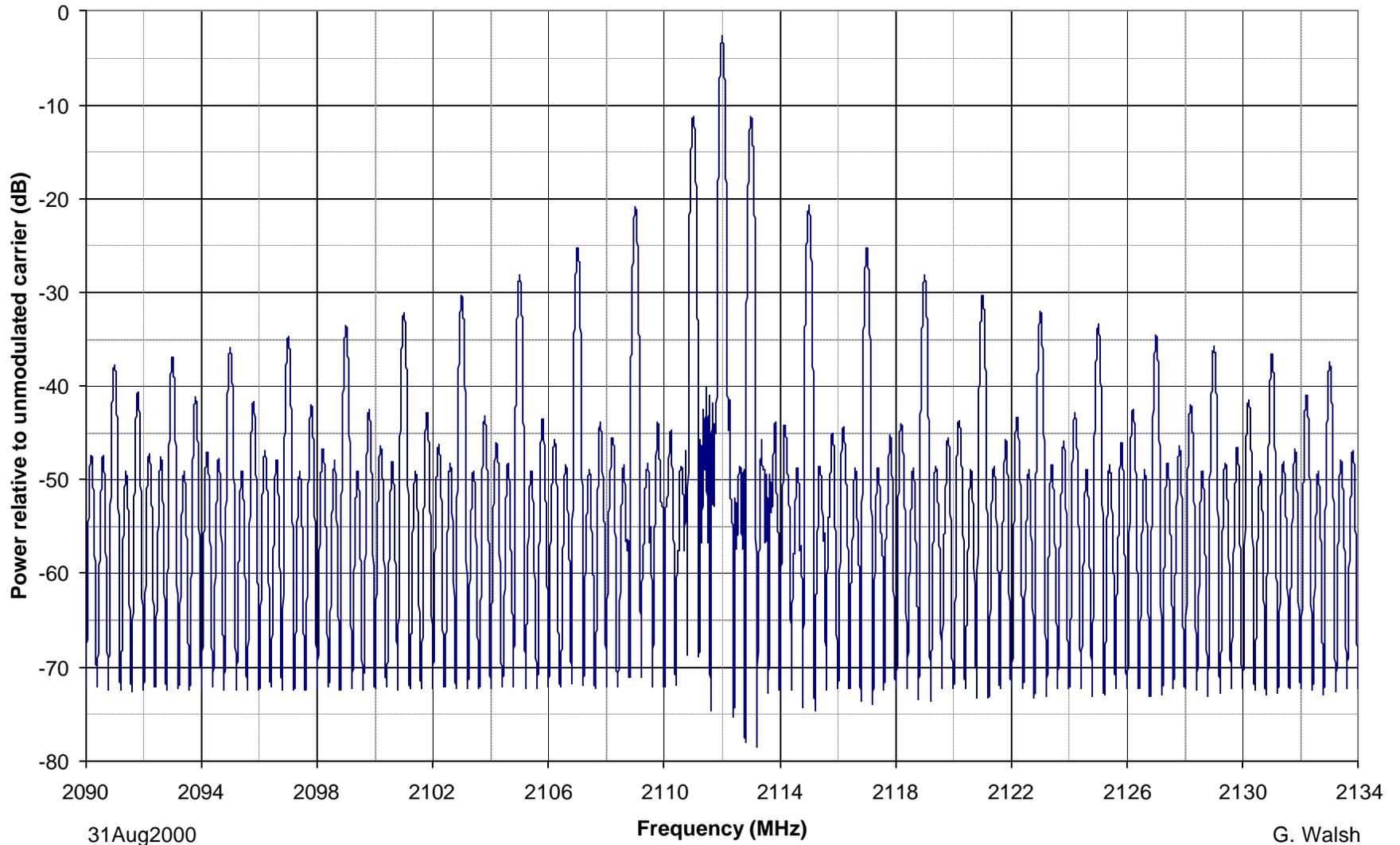
Regarding DSN uplink in the 2110-2120 MHz band

What was done?

- MCT (Spanish Ministry of Science and Technology, in charge of telecom regulation) and INTA measured emission levels in the region (Nov 99 and Jan 01).
- NASA/INTA implemented ranging filter, reducing BW by a factor of 10.
- NASA/ESA/ISAS trimmed unnecessary operational requirement for the existing and committed missions.
 - Uplink power level
 - Duration and frequency of operation
- MCT and NASA/INTA held 2 meetings in June 2000 and January 2001. Agreement was reached in the 2nd meeting.

Fig. 2A

1MHz Squarewave at 30 Degree Modulation Index



31Aug2000

Frequency (MHz)

G. Walsh

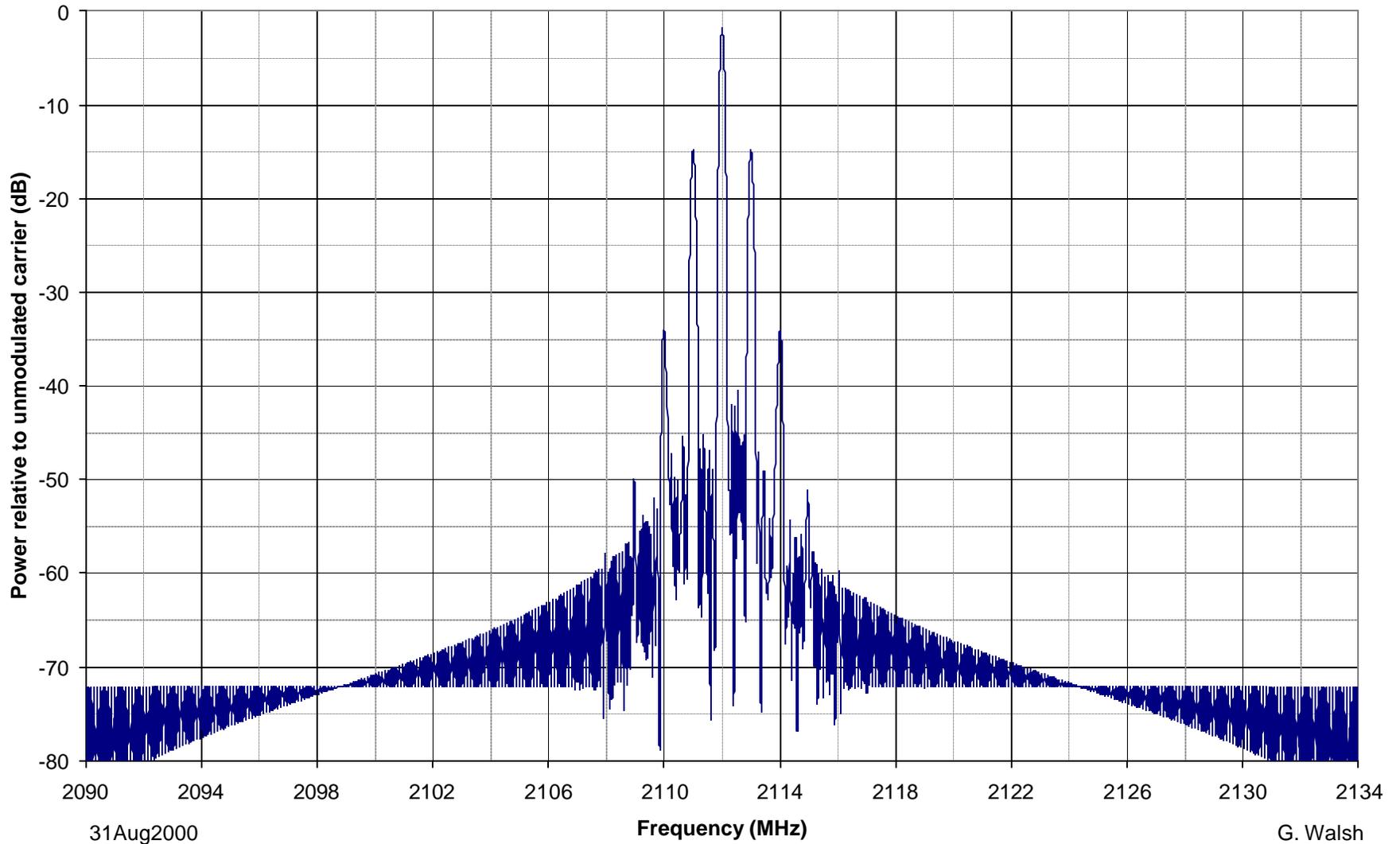
6/21/2001

Ted Peng

4

Fig. 2B

1MHz Squarewave After 7-Pole Chebychev at 30 Degree Modulation Index



31Aug2000

Frequency (MHz)

G. Walsh

6/21/2001

Ted Peng

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What was agreed?

- Routine operations
 - Routine operations of Galileo, Nozomi, Ulysses will be supported until the end of mission life (before 2005)
 - Mars Express and Rosetta require routine operations until 10 days after launch (2003). This will be supported.
 - Voyager 1 routine support after 2005 (to 2020) is subject to further negotiation. MCT acknowledged that NASA has minimized requirement to 1 hour per week.
 - No routine S-Band uplink for new missions in the future.

What was agreed? (cont.)

- Emergency or critical operations
 - Emergency commanding for existing missions (GSLV, Voyager 1, Ulysses, Nozomi) will be supported to the end of mission life.
 - Emergency commanding for Mars Express and Rosetta will be supported until end of 2005. Continuation after 2005 is subject to examination of possibility to lower Rosetta frequency, guard band required for the UMTS 2nd channel, and technical justification for Rosetta emergency requirement.
 - Emergency or critical operations for future missions can be allowed. Those emissions shall be discussed case by case. NASA will make every effort to restrict frequencies to below 2115 MHz.

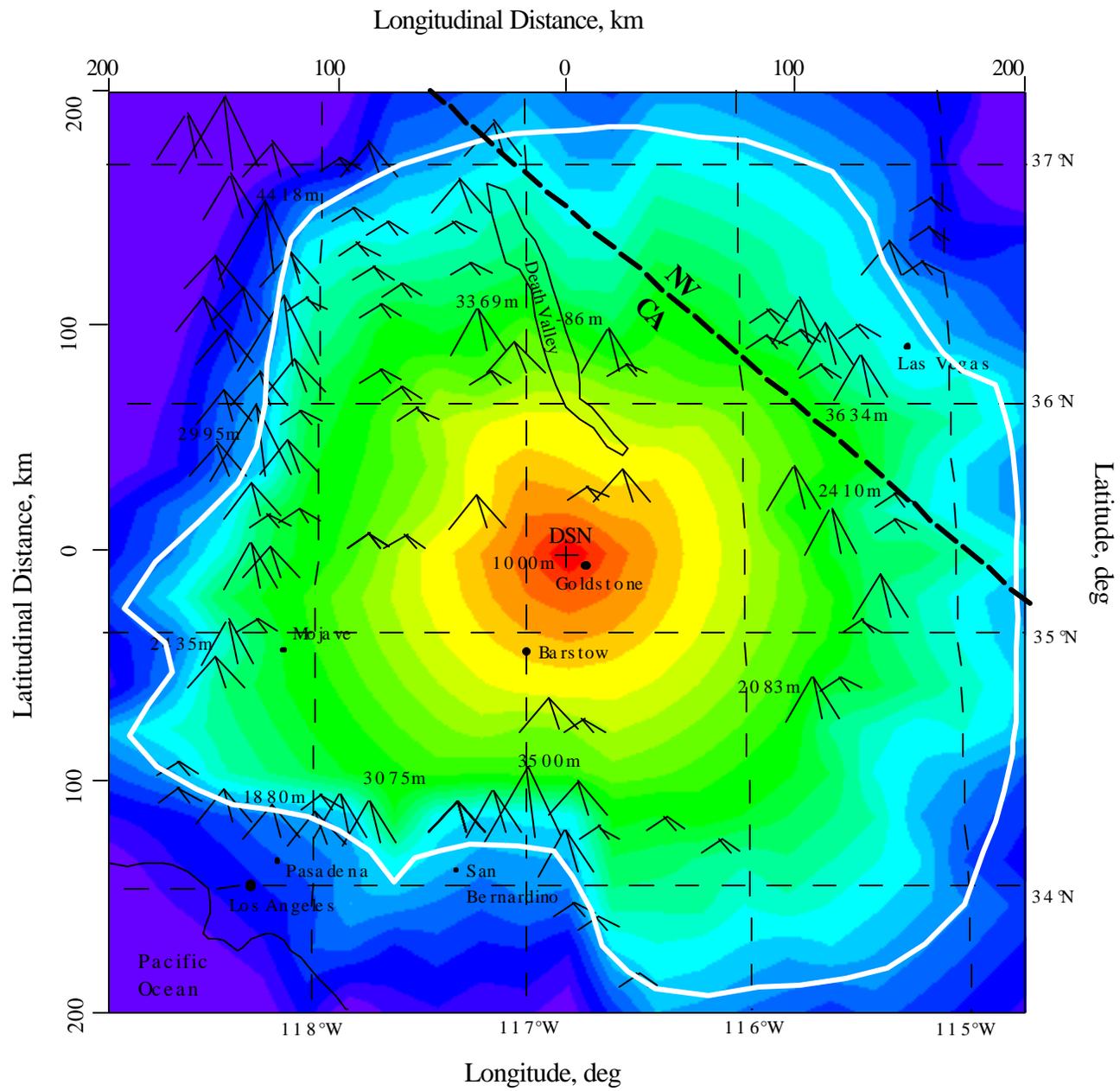
IMT2000 in Australia

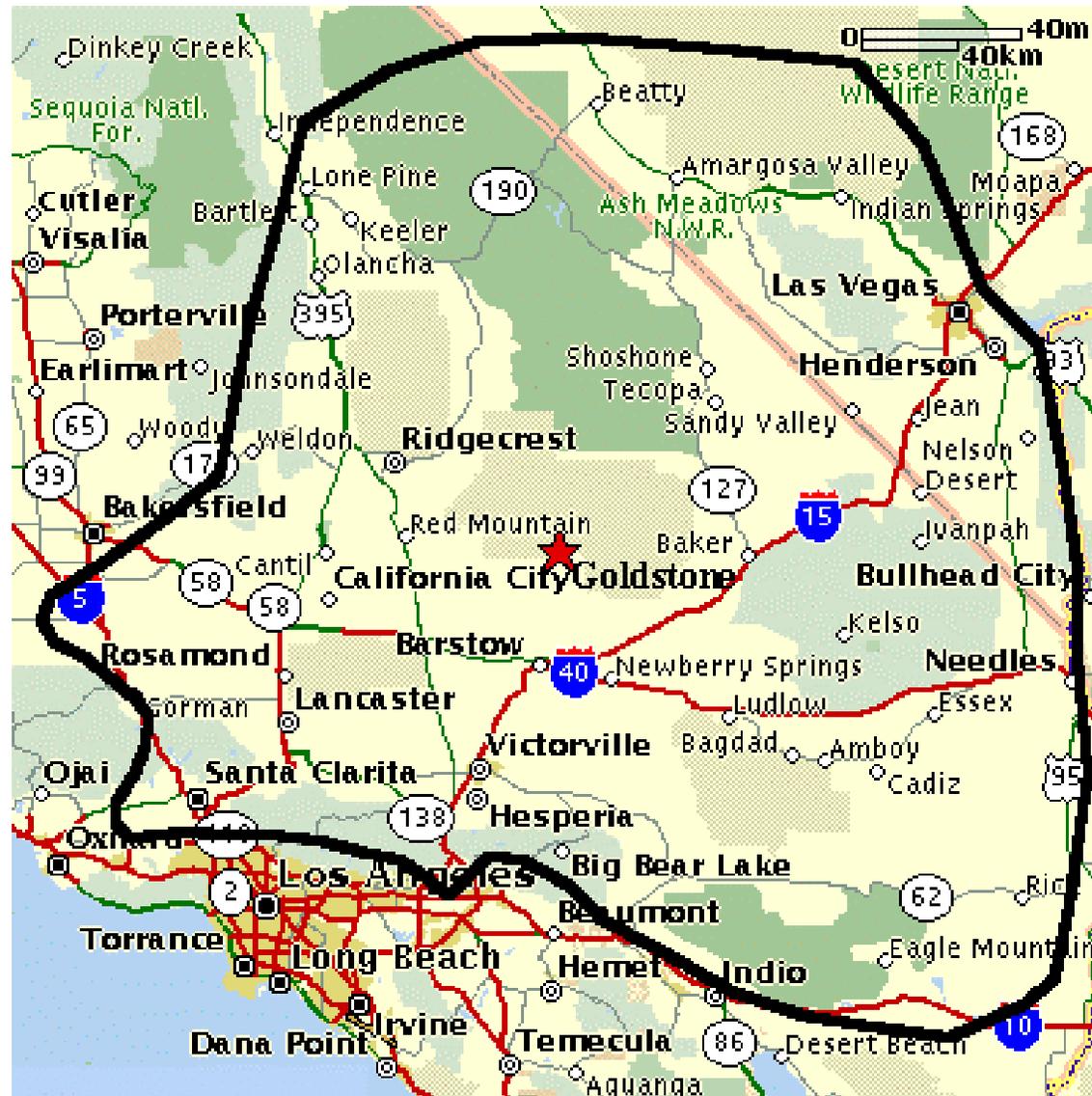
- Australian Communication Administration acknowledged in its IMT2000 implementation plan
 - the space research requirement at the Canberra Deep Space Complex and
 - the ACA intention to protect CDSDD right to transmit
- ACA auctioned out 2125-7170 MHz in the Canberra Capital Area vs 2110-2170 MHz in Sydney, Melbourne, and other metropolitan areas.
 - Population and the DSN Complex were both stated reasons.

G3/IMT2000 around Goldstone

- A contour around Goldstone was posted at the FCC website, about 200 km in radius and along mountains in south and west.
 - Population centers outside the contour will not be affected.
 - Areas inside contour should not use 2110-2120 MHz. Low population density requires fewer channels than LA.

 - You can reach the FCC posting as follows:
 - 1. Go to **<http://www.fcc.gov/e-file/ecfs.html>**
 - 2. Select "Search the ECFS system.
 - 3. Enter "00-258" in the field under "proceeding.
 - 4. Hit "retrieve document list" at the bottom to see the list of all comments.
 - 5. Look for comments by "Jet Propulsion Laboratory, California Institute of Technology"







JOINT USERS RESOURCE ALLOCATION PLANNING COMMITTEE



Resource Analysis Team

June 21, 2001

Kevin Kim

(for Frank Leppla)

DSN User / Mission Planning Set

2001 - 2011

ONGOING/PLANNED PROJECTS				
Project	Acronym	Launch or Start	EOPM	EOEM
DSN VLBI Clock Sync and Catalog M&E	DSN	--	--	--
DSS Maintenance	DSS	--	--	--
European VLBI Network	EVN	--	--	--
Ground Based Radio Astronomy	GBRA	--	--	--
Space Geodesy	SGP	--	--	--
Voyager 2	VGR2	08/20/77	10/15/89	12/31/19
Voyager 1	VGR1	09/05/77	12/31/80	12/31/19
Goldstone Solar System Radar	GSSR	04/01/85	--	--
Galileo	GLLO	10/18/89	12/07/97	09/21/03
Ulysses	ULYS	10/06/90	09/11/95	12/31/04
ISTP - Geotail	GTL	07/24/92	07/24/95	09/30/05
ISTP - Wind	WIND	11/01/94	11/01/97	09/30/05
Space VLBI	SVLB	02/01/95	12/31/03	---
ISTP - SOHO	SOHO	12/02/95	05/02/98	12/30/05
ISTP - Polar	POLR	02/22/96	08/23/97	09/30/05
Gravity Probe B	GPB	06/01/96	10/31/03	TBD
Mars Global Surveyor	MGS	11/07/96	02/01/01	05/04/03
Highly Advanced Laboratory for Communications and Astronomy	VSOP	02/12/97	09/30/01	---
Advance Composition Explorer	ACE	08/25/97	02/01/01	01/31/05
Cassini	CAS	10/15/97	06/30/08	06/30/10
NOZOMI (Planet-B)	NOZO	07/03/98	TBD	TBD
Deep Space 1	DS1	10/24/98	09/19/99	10/31/01
Stardust	SDU	02/07/99	01/14/06	---
Chandra X-ray Observatory	CHDR	07/23/99	07/23/04	07/23/09
Imager for Magnetopause-to-Aurora Global Exploration	IMAG	03/25/00	05/30/02	03/30/03
Cluster 2 - S/C #2 (Samba)	CLU2	07/16/00	02/15/03	09/19/05
Cluster 2 - S/C #3 (Rumba)	CLU3	07/16/00	02/15/03	09/19/05
Cluster 2 - S/C #1 (Salsa)	CLU1	08/09/00	02/15/03	09/19/05
Cluster 2 - S/C #4 (Tango)	CLU4	08/09/00	02/15/03	09/19/05
2001 Mars Odyssey	M01O	04/07/01	08/01/04	09/19/07
Microwave Anisotropy Probe	MAP	06/30/01	07/21/03	09/30/06
Genesis	GNS	07/30/01	09/08/04	---
International Gamma Ray Astrophysics Lab	INTL	04/22/02	06/23/04	06/23/07
Comet Nucleus Tour (CONTOUR)	CNTR	07/01/02	09/05/08	TBD
Space Infrared Telescope Facility	SRTF	07/15/02	09/14/07	---
RadioAstron*	RADA	10/01/02	10/01/07	TBD
MUSES - C	MUSC	12/01/02	07/01/07	---
Rosetta	ROSE	01/13/03	10/23/12	---
Mars Exploration Rover - A	MERA	05/30/03	04/06/04	---
Mars Express Orbiter	MEX	06/01/03	12/01/05	07/31/08
Mars Exploration Rover - B	MERB	06/27/03	05/10/04	---

* Planning dates

DSN User / Mission Planning Set 2001 - 2011

ADVANCED PLANNING PROJECTS				
Project	Acronym	Launch or Start	EOPM	EOEM
Lunar - A	LUNA	08/09/03	03/03/04	---
Deep Impact	DEEP	01/02/04	08/05/05	---
Messenger	MSGR	03/23/04	09/30/10	---
Stereo Ahead	STA	11/26/04	02/25/07	02/28/10
Stereo Behind	STB	11/26/04	03/15/07	03/15/10
Mars Reconnaissance Orbiter	MRO	08/17/05	02/27/16	
Europa Orbiter	EURO	01/03/06	08/22/10	TBD
StarLight	SL	07/01/06	06/30/07	---
Highly Advanced Laboratory for Communications and Astronomy	VSP2	01/01/07	01/01/12	---
Mars Smart Lander 2007	M07L	09/04/07	08/19/10	TBD
Mars Competed Scout 2007	M07S	09/04/07	11/19/08	TBD
Mars CNES Orbiter 2007	M07O	09/09/07	08/11/08	08/12/10
Mars ASI/NASA Telecommunications Orbiter 2007	M07T	09/09/07	08/09/18	TBD
ARISE	ARSE	01/01/08	01/01/13	---
Mars ASI/NASA Science Orbiter 2009	M09O	10/04/09	08/29/12	TBD
Mars CNES MSR Lander 2011	M11L	10/30/11	09/10/14	TBD
Mars CNES MSR Orbiter 2011	M11O	10/30/11	07/22/14	TBD

TMOD Resource Implementation Planning Matrix

Station	Subnet	First Delivery Date	S-Band Down	S-Band Up	X-Band Down	X-Band Up	Ka-Band Down	Ka-Band Up	Ku-Band Up and Down	Close
DSS-14	70M	XXXX	XXXX	XXXX	XXXX	XXXX	TBD	N/A	N/A	N/A
DSS-15	34HEF	XXXX	XXXX	N/A	XXXX	XXXX	TBD	N/A	N/A	N/A
DSS-16	26M	XXXX	XXXX	XXXX	N/A	N/A	N/A	N/A	N/A	N/A
DSS-24	34B1	XXXX	XXXX	XXXX	XXXX	5/1/2003	10/1/2005	N/A	N/A	N/A
DSS-25	34B2	XXXX	N/A	N/A	XXXX	XXXX	XXXX	5/1/2001	N/A	N/A
DSS-26	34B2	8/1/2002*	N/A	N/A	8/1/2002*	8/1/2002*	4/1/2003	N/A	N/A	N/A
DSS-27	34HSB	XXXX	XXXX	XXXX	N/A	N/A	N/A	N/A	N/A	N/A
DSS-28	34B2	TBD	N/A	N/A	TBD	TBD	N/A	N/A	N/A	N/A
DSS-33	11M	XXXX	N/A	N/A	XXXX	XXXX	N/A	N/A	XXXX	2/1/2002
DSS-34	34B1	XXXX	XXXX	XXXX	XXXX	XXXX	11/30/2004	N/A	N/A	N/A
DSS-43	70M	XXXX	XXXX	XXXX	XXXX	XXXX	TBD	N/A	N/A	N/A
DSS-45	34HEF	XXXX	XXXX	N/A	XXXX	XXXX	TBD	N/A	N/A	N/A
DSS-46	26M	XXXX	XXXX	XXXX	N/A	N/A	N/A	N/A	N/A	N/A
DSS-53	11M	XXXX	N/A	N/A	XXXX	XXXX	N/A	N/A	XXXX	2/1/2002
DSS-54	34B1	XXXX	XXXX	XXXX	XXXX	XXXX	8/1/2006	N/A	N/A	N/A
DSS-55	34B2	11/1/2003	N/A	N/A	11/1/2003	11/1/2003	11/1/2003	N/A	N/A	N/A
DSS-63	70M	XXXX	XXXX	XXXX	XXXX	10/11/2001	TBD	N/A	N/A	N/A
DSS-65	34HEF	XXXX	XXXX	N/A	XXXX	XXXX	TBD	N/A	N/A	N/A
DSS-66	26M	XXXX	XXXX	XXXX	N/A	N/A	N/A	N/A	N/A	N/A

* = DSS-26 X-Band Operational Early to cover DSS-15 NSP Downtime, 8/1/02 - 09/27/02.
 Will be removed from service 10/1/02 - 4/1/03 for NSP and X/X/Ka Implementation upon return of DSS-15.

XXXX = Capability Currently Exists
 N/A = Capability Not Planned

4/19/2001

**JURAP - JUNE 21, 2001**

◆ RESOURCE NEGOTIATION STATUS

- 2001 WEEK 34 (THRU 08/26/2001) WAS RELEASED TO DSN ON 06/16/2001
- 2001 WEEK 35 (THRU 09/02/2001) IS DUE TO BE RELEASED ON 06/25/2001
- 2001 WEEKS 43 - 47 (THRU 11/25/2001) WILL GO INTO NEGOTIATIONS STARTING 06/22/2001



Joint Users Resource Allocation Committee

- ◆ **SPECIAL STUDIES/ACTIVITIES**
 - KEPLER PRELIMINARY STUDY

- ◆ **ON-GOING ACTIVITIES**
 - MADB/TIGRAS TESTING AND TRAINING
 - DEEP IMPACT LOAD STUDY
 - GALILEO EXTENDED MISSION STUDY
 - GENESIS BACKUP RETURN STUDY
 - IMAGE LOAD STUDY
 - KEPLER REVISED STUDY
 - MEX LOAD STUDY
 - MESSENGER LOAD STUDY
 - MRO LOAD STUDY



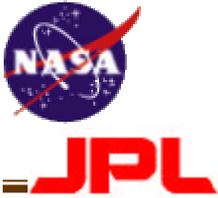
RESOURCE ALLOCATION AND PLANNING



Joint Users Resource Allocation Committee

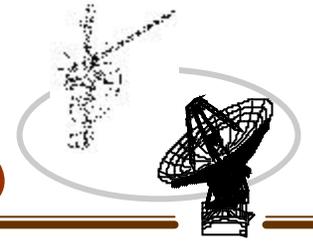
- ◆ **RARB - AUGUST 14, 2001 LINK ON RAPWEB**
 - TIMELINE ADDED

[HTTP://RAPWEB.JPL.NASA.GOV](http://rapweb.jpl.nasa.gov)



INTERPLANETARY NETWORK & INFORMATION SYSTEMS DIRECTORATE

Resource Allocation Planning & Scheduling Office (RAPSO)



JOINT USERS RESOURCE ALLOCATION PLANNING COMMITTEE



DSS DOWNTIME FORECAST

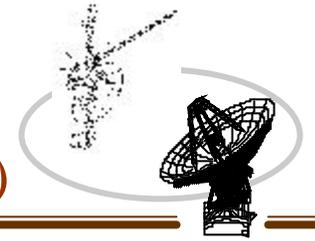
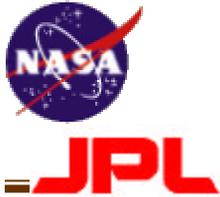
Jose Valencia

June 21, 2001

NASA Jet Propulsion Laboratory

DSN Downtime & Test Schedule is located on the RAP WWW Homepage at: <http://rapweb.jpl.nasa.gov>

Although every effort is made to ensure the accuracy of this Downtime Planning report, changes can and do occur. The DSN 7-Day Schedule takes precedence over this document.



Resource Allocation Planning & Scheduling Office (RAPSO)

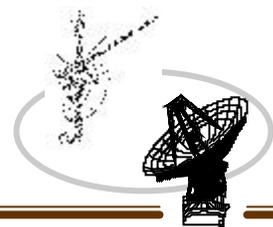
<u>FACILITY</u>	<u>TASK</u>	<u>SCHEDULE</u>	<u>DURATION</u>
DSS-14	Antenna Controller Replacement	Weeks 28 – 40 / 2004	13 Weeks
CANBERRA DSS-43	Antenna Controller Replacement	*07/26/04 - 10/03/04 No Proposal (possible in 2005)	10 Weeks
MADRID DSS-63	Antenna Controller Replacement	*10/11/04 - 12/19/04 No Proposal (possible in 2005)	10 Weeks
DSS-65	Antenna Controller Replacement	Weeks 07 - 13 / 2004	7 Weeks

*Request Window: Earliest Start - Latest Finish

Antenna Controller Replacement implementation priority:

1. Goldstone
2. Canberra
3. Madrid

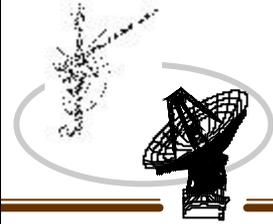
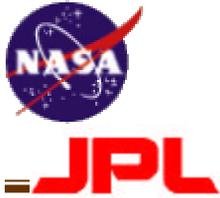
One month turn-around between each complex is needed.



MAJOR DSN DOWNTIMES by DATE

The latest update is on:6/18/01 10:10:00 AM
 *The highlighted portion indicates the last change made.

Year	Site	Description	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
2001	DSS 63	70M X-Band Uplink	07/23/01	10/10/01	80	30-41	204	283
2001	DSS 63	NIB - Feedcone Structure	07/23/01	10/10/01	80	30-41	204	283
2001	DSS 63	NIB - Hydrostatic Bearing Regrout	07/23/01	10/10/01	80	30-41	204	283
2001	DSS 63	NIB - Counterweight Rebalance	07/23/01	10/10/01	80	30-41	204	283
2001	DSS 63	NIB - Az Cablewrap Rehab	07/23/01	10/10/01	80	30-41	204	283
2001	DSS 63	NIB - Chiller+HtExch HVAC Mods	07/23/01	10/10/01	80	30-41	204	283
2001	DSS 16	Servo Drive Replacement	11/19/01	12/16/01	28	47-50	323	350
2002	DSS 66	Servo Hydraulic Drive Replacement	06/24/02	07/21/02	28	26-29	175	202
2002	DSS 14	70M Servo Drive Upgrade	07/15/02	09/27/02	75	29-39	196	270
2002	DSS 14	NIB - NSP Implementation	07/15/02	09/27/02	75	29-39	196	270
2002	DSS 15	NSP Implementation	08/01/02	09/27/02	58	31-39	213	270
2002	DSS 24	NSP Implementation	10/01/02	11/22/02	53	40-47	274	326
2002	DSS 45	NSP Implementation	10/01/02	11/22/02	53	40-47	274	326
2002	DSS 54	NSP Implementation	10/01/02	11/22/02	53	40-47	274	326
2002	DSS 26	NSP Test and Training	10/01/02	02/01/03	124	40-05	274	032
2002	DSS 24	NIB - 20 KW X-Band Txr Installation	10/01/02	11/22/02	53	40-47	274	326
2002	DSS 54	NIB - 20 KW X-Band Txr Installation	10/01/02	11/22/02	53	40-47	274	326
2002	DSS 24	NIB - KA-Band Encoder Mech Mod-Kit Installation	10/01/02	10/20/02	20	40-42	274	293
2002	DSS 54	NIB - KA Band Encoder Mech Mod Kit Installation	10/01/02	10/20/02	20	40-42	274	293
2002	DSS 43	70M Servo Drive Upgrade	11/25/02	02/09/03	77	48-06	329	040
2002	DSS 43	NIB - Ball-Joint Pad Refurbishment	11/25/02	02/09/03	77	48-06	329	040
2002	DSS 43	NIB - NSP Implementation	12/02/02	02/09/03	70	49-06	336	040
2002	DSS 65	NSP Implementation	12/02/02	02/09/03	70	49-06	336	040
2003	DSS 26	X/X/Ka Downlink Implementation	02/01/03	04/01/03	60	05-14	032	091
2003	DSS 63	70M Servo Drive Upgrade	02/10/03	04/20/03	70	07-16	041	110
2003	DSS 63	NIB - Ball-Joint Pad Refurbishment	02/10/03	04/20/03	70	07-16	041	110
2003	DSS 63	NIB - NSP Implementation	02/10/03	04/06/03	56	07-14	041	096
2003	DSS 25	NSP Implementation	02/10/03	04/06/03	56	07-14	041	096
2003	DSS 34	NSP Implementation	02/10/03	04/06/03	56	07-14	041	096
2003	DSS 25	NIB - 20 KW X-Band Txr Installation	02/10/03	04/06/03	56	07-14	041	096
2003	DSS 34	NIB - 20 KW X-Band Txr Installation	02/10/03	04/06/03	56	07-14	041	096
2003	DSS 34	NIB - KA-Band Encoder Mech Mod-Kit Installation	02/10/03	03/02/03	21	07-09	041	061
2003	DSS 15	Antenna Controller Replacement	03/03/03	05/04/03	63	10-18	062	124
2003	DSS 46	Servo Hydraulic Drive Replacement	05/05/03	06/01/03	28	19-22	125	152
2003	DSS 45	Antenna Controller Replacement	09/08/03	10/25/03	48	37-43	251	298



MAJOR DSN DOWNTIMES by SITE by Year								
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2002	DSS 54	NIB - KA Band Encoder Mech Mod Kit Installation	10/01/02	10/20/02	20	40-42	274	293
2002	DSS 65	NSP Implementation	12/02/02	02/09/03	70	49-06	336	040
2002	DSS 66	Servo Hydraulic Drive Replacement	06/24/02	07/21/02	28	26-29	175	202
2003	DSS 15	Antenna Controller Replacement	03/03/03	05/04/03	63	10-18	062	124
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InterPlanetary Network and Information Systems Directorate (IPN-ISD)



JPL

Deep Space Mission System Operations Program Office

JOINT USERS RESOURCE ALLOCATION PLANNING COMMITTEE



DSN Operations

Jim Hodder

June 21, 2001

NASA Jet Propulsion Laboratory

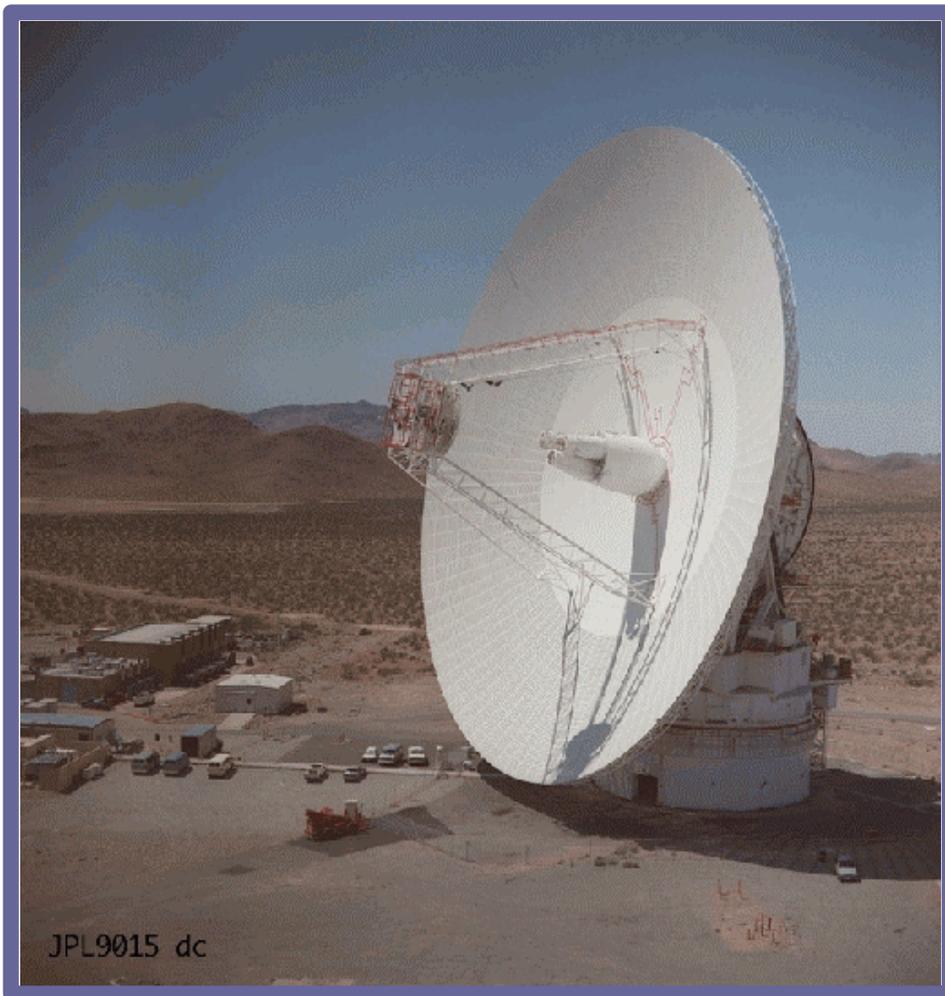
<http://dsnops/>



DSN System Availability

<u>Data Type</u>	<u>April 2001</u>	<u>May 2001</u>
Telemetry	99.3%	99.3%
Tracking	98.7%	98.4%
Command	99.0%	99.4%
Monitor	99.4%	99.4%
Radio Science	99.7%	99.5%
VLBI	98.9%	98.0%

Goldstone Solar System Radar

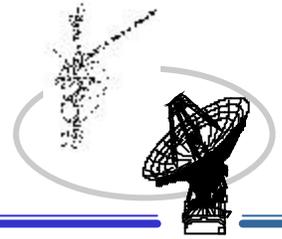


Martin A. Slade

June 21, 2001

NASA Jet Propulsion Laboratory

Joint Users Resource Allocation Planning Committee Meeting



- Goldstone radar observations of *binary* Near-Earth Asteroid 1999 KW4 were successful on May 21, 22, 23, 24, 25, 26, 27, 28, 29, 2001, at DSS-14, with a press release at URL: <http://www.jpl.nasa.gov/releases/2001/binaryasteroid.html>



3 Snapshots of NEA 1999 KW4, showing a complete orbit of the Secondary around the Primary body

- The next 8 Mars Exploration Rover landing site validation tracks on May 17, 19, 28, June 7, 8, 9, 15 and 17 were successful. These complex tracks involve radar interferometry between DSS-14, DSS-13, DSS-25, and GAVRT.

Honeywell

Honeywell Technology Solutions Inc.
Pasadena Operations
Customer Service Department



Joint Users Resource Allocation Planning Committee



RADIO ASTRONOMY AND SPECIAL ACTIVITIES

George Martinez
June 21, 2001



TEMPO (Time and Earth Motion Precision Observations)

- **Clock Sync**
 - **DOY 126**
 - No problems were reported by either DSS-15 or DSS-65.
 - Tapes sent to JPL Correlator for processing.
 - **DOY 137**
 - No problems were reported by either DSS-15 or DSS-65.
 - Tapes sent to JPL Correlator for processing.
 - **DOY 149**
 - No problems were reported by either DSS-15 or DSS-65.
 - Tapes sent to JPL Correlator for processing.
- **Metrics**
 - 3 observations – 100% of data time utilized.



Cat M & E

- **DOY 147**
 - No problems were reported by either DSS-15.
 - DSS-45 reported tape problems.
 - Tapes sent to the JPL Correlator for processing.
- **Metrics**
 - 97% of data time utilized.



Space Geodesy Program

- **CORE-B901**
 - Continuous Observations of the Rotation of the Earth (CORE).
 - DSS-45 lost 12 minutes when the antenna halted.
 - Tape sent to the Washington Correlator for processing.
- **CORE-C101**
 - Continuous Observations of the Rotation of the Earth (CORE).
 - DSS-15 had problems configuring for the pass.
 - Tape sent to the Haystack Correlator for processing.
- **Metrics**
 - 2 observations – 99% of data time utilized.



**JOINT USERS RESOURCE ALLOCATION PLANNING
COMMITTEE**



***Brad Compton
June 21, 2001***



NASA Jet Propulsion Laboratory

<http://galileo.jpl.nasa.gov/>



GALILEO EUROPA MISSION

ROUTINE ACTIVITIES

- Three attitude maintenance turns
- One propulsion maintenance activities
- DMS conditioning
- Mini-gyro test
- Science instrument MROs



GALILEO EUROPA MISSION

SIGNIFICANT EVENTS

- Completed Ganymede 29 encounter and calibration data playback
- Executed OTM-95 (pre-encounter)
- Two Radio Science occultation experiments - Jupiter & Callisto
- Perijove occurred 23 May at 11:24 AM
- Encountered Callisto (C30) - closest approach 25 May at 5:14 AM
- altitude of 138km
- Solid State Imaging (SSI) camera experienced baseline voltage anomalies - realtime commands were issued to power cycle and reload the instrument
- Near Infrared Mapping Spectrometer (NIMS) and Energetic Particle Detector (EPD) experienced memory upsets - sequenced memory reloads corrected the problem



GALILEO EUROPA MISSION

SIGNIFICANT EVENTS (Continued)

- Two CDS Despun bus resets were handled by on-board recovery software
- Executed OTM-96 (post-encounter) - 2 days early to conserve propellant
- Began a survey of images on the DMS, which confirmed some images were lost due to the SSI anomalies
- Configured DMS and CMDLOSS for solar conjunction
- Entered solar conjunction



GALILEO EUROPA MISSION

PROJECT PLANS

- Exit solar conjunction - 23 June
- Continue routine activities
- Initiate C30 encounter data playback
- Next encounter Io - 6 August

Deep Space One

<http://nmp.jpl.nasa.gov/ds1/>



Joint Users Resource Allocation Planning Meeting

Kathy Moyd
June 21, 2001

JPL



SPECTRUMASTRO

DEEP SPACE 1

Previous Month's Activities and Current Status

- Regular anchor tracks Earth-pointed and rest of time at “coast” attitude through June 19.
- Because of the significant decrease in use of hydrazine while thrusting, we will be thrusting even during planned “coast” time. The strategy is to alternate between a “North” star and a “South” star.
- Variations in throttle level used to maintain trajectory.
- Earth-Pointed starting June 19 through July 4 for the second encounter rehearsal.

Telecom-related problems from May 15 through June 15.

- none.

Near Term Plans

- Second encounter rehearsal scheduled for June 28.
- Return to regular anchor tracks/midweeks July 4.



WELCOME

STARDUST

JOINT USERS

RESOURCE ALLOCATION

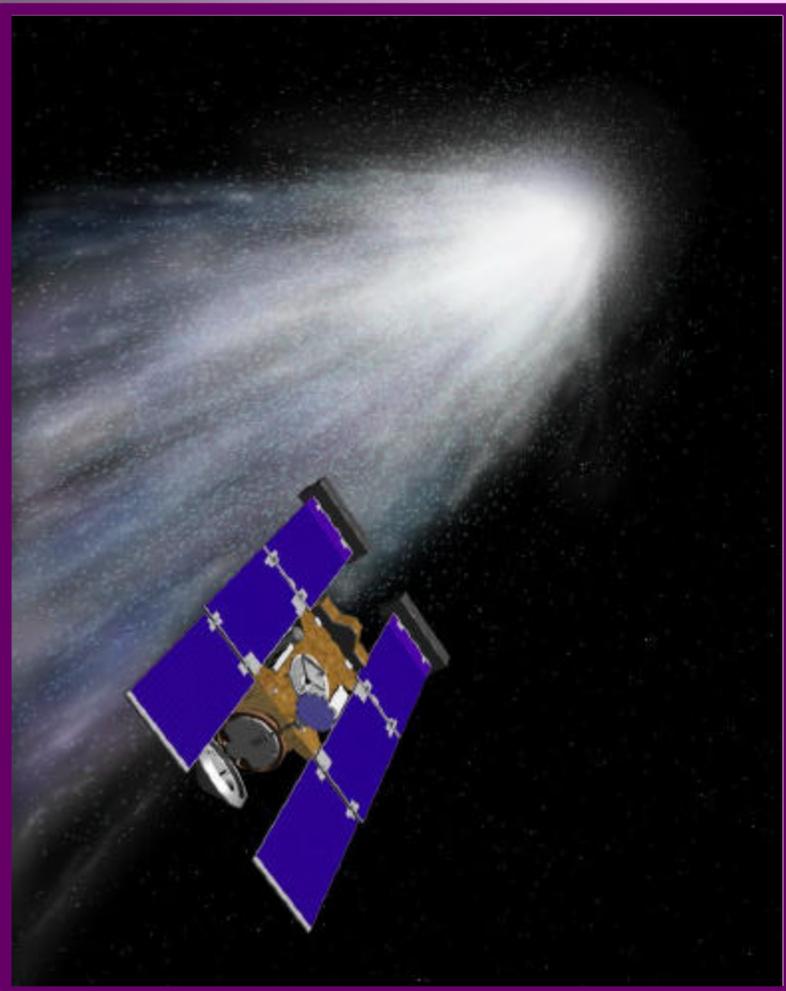
PLANNING COMMITTEE

R. E. Ryan

June 21, 2001

NASA Jet Propulsion Laboratory

<http://stardust.jpl.nasa.gov>





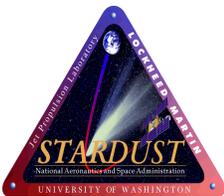
STARDUST

Report to JURAP



STATUS

- * **SPACECRAFT IS HEALTHY (6/21/01)**
- * **PRESENTLY 1.26 AU from EARTH**
 - **00:21:00 RTLT**
 - **1.8 AU from SUN**
- **SPACECRAFT IS IN NOMINAL CRUISE**
 - **CIDA INTERSTELLAR DUST COLLECTION PERIOD #2 ON-GOING**
 - **LESS NAV CAM ACTIVITY**
 - **BIT RATE IS AT 1975 bps, AND WILL CONTINUE TO DROP**
 - **COMPLETED THE ENCOUNTER GEOMETRY GUIDE STAR IMAGES**
 - **16 IMAGES TAKEN ON JUNE 8**



6/21/01



2 of 4

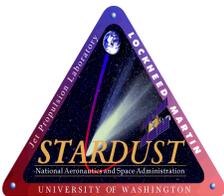


STARDUST

Report to JURAP



- **FLIGHT SOFTWARE UPGRADES**
 - **CONCERTED EFFORT UNDERWAY TO GET FLIGHT SOFTWARE PATCHES COMPLETED AND ON-BOARD IN THE NEXT COUPLE OF MONTHS**
 - 12 PATCHES IDENTIFIED, ALL IN WORK
 - 4 ON-BOARD TO DATE
- **TMOD SUPPORT HAS GENERALLY BEEN VERY GOOD THIS PERIOD**
 - **UPLINK PROBLEM DUE TO DSS-65 EXCITER ON JUNE 4, DELAYED THE NAV CAM GUIDE STAR IMAGES UNTIL JUNE 8. STILL UNDER INVESTIGATION.**



6/21/01



3 of 4



STARDUST

Report to JURAP



UPCOMING EVENTS

SUPERIOR CONJUNCTION ON DECEMBER 25

Earth 3.5 AU

Sun 2.6 AU

One Degree SEP

DSM-2 (TCM-7) March 13, 2002

CHECK OUT THE HOMEPAGE:

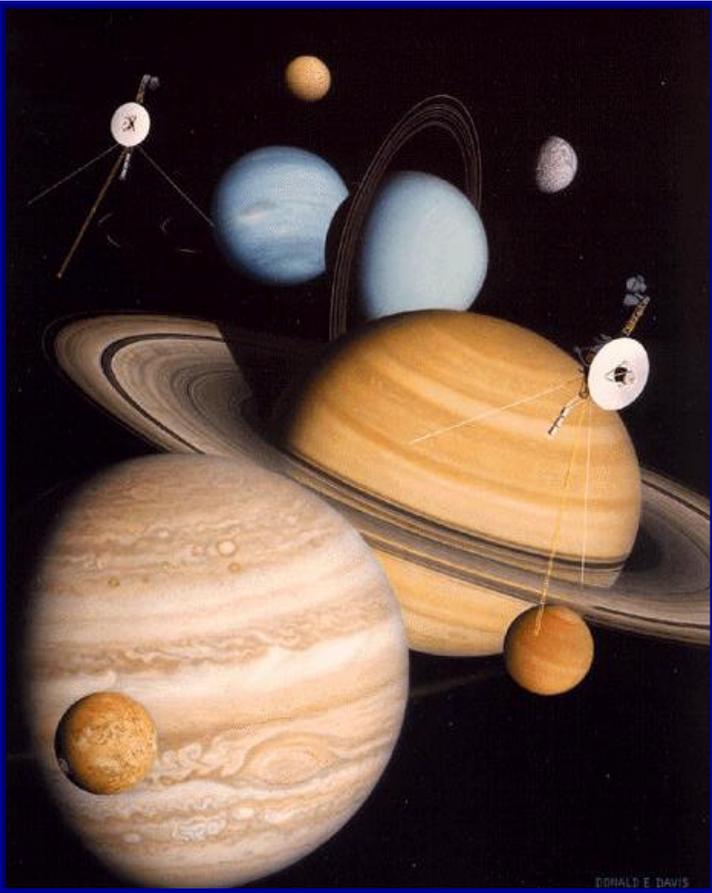
<http://stardust.jpl.nasa.gov>



6/21/01



4 of 4



VOYAGER

FLIGHT OPERATIONS

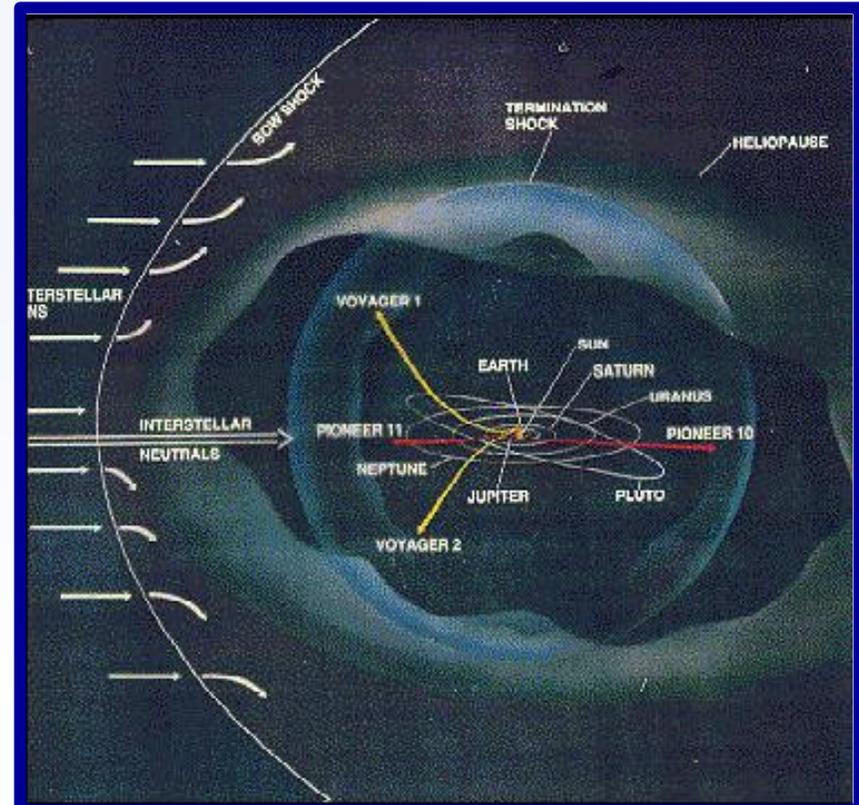
JOINT USERS RESOURCE ALLOCATION PLANNING COMMITTEE

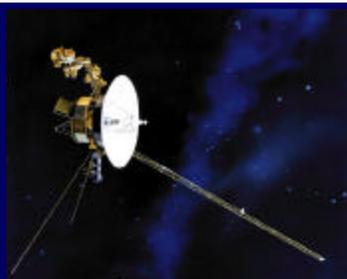
J. C. Hall, Jr.
June 21, 2001

NASA Jet Propulsion Laboratory



<http://vraptor.jpl.nasa.gov>





VOYAGER

FLIGHT OPERATIONS



FLIGHT SYSTEM STATUS

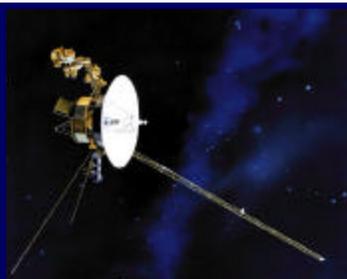
MISSION STATUS

VOYAGER 1

- * HELIOCENTRIC DISTANCE – 81.4 AU, RTLT – 22h20m34s
- SPACECRAFT REMAINS HEALTHY
- RTLT = 24h00m00s in 2002-280/06:57:54 (10/7/02)

VOYAGER 2

- * HELIOCENTRIC DISTANCE – 64.3 AU, RTLT – 17h35m06s
- SPACECRAFT REMAINS HEALTHY
- MAJOR ACTIVITY - MAGROL



VOYAGER

FLIGHT OPERATIONS



GROUND SYSTEM STATUS

(May 12, 2001 - June 15, 2001)

DSN - OVERALL SUPPORT – GOOD

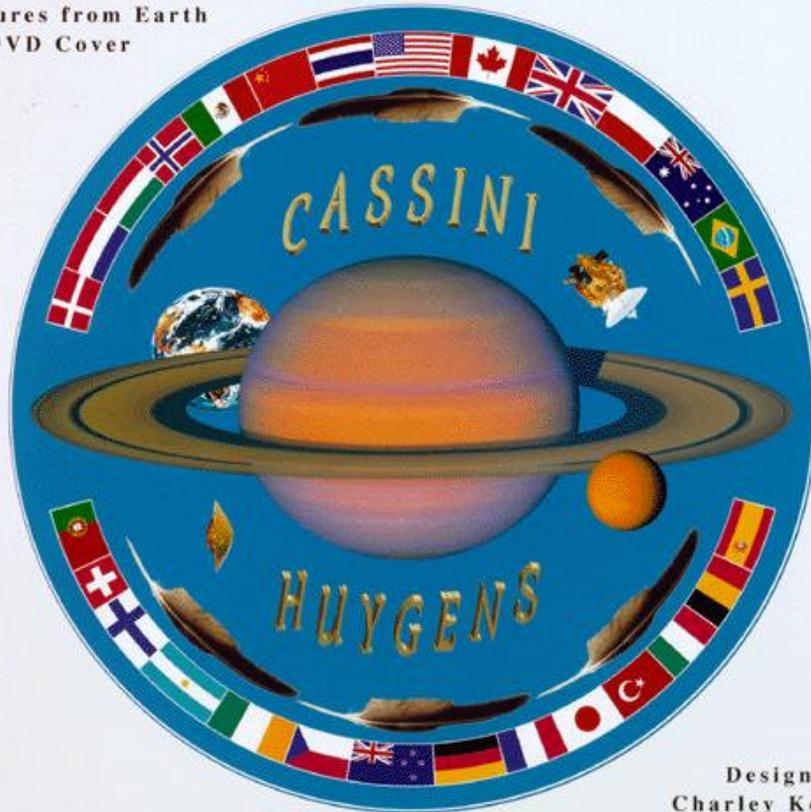
TOTAL SUPPORT TIME, OUTAGE TIME, % of OUTAGE TIME

S/C	SCHED SUPPORT	ACTUAL SUPPORT	70M TIME	SIGNIFICANT OUTAGE TIME	% of OUTAGE TIME
31	494.9	494.9	248.3	2.3 (2.4)	.95
32	339.1	341.0*	198.2	0.0 (0.4)	.12

*Received 1.9 hours of DSS-45 support from Host Country to cover a DTR activity.

VOYAGER HOMEPAGE - <http://vraptor.jpl.nasa.gov>

Signatures from Earth
DVD Cover



Design by
Charley Kohlhase

CASSINI

<http://www.jpl.nasa.gov/cassini/>

Joint Users Resource Allocation Planning (JURAP) Committee Meeting

**Dave Doody
June 21, 2001**

NASA Jet Propulsion Laboratory



Cassini Activities

- In Quiet Cruise Subphase through 8 July 2002
 - Nominally, S/C remains HGA-to-Earth except for specific short activities
 - One more S-Uplink Huygens Probe Test Saturday
 - DSS65 Pass tomorrow scheduled near R/T (to uplink test seq)



Cassini Activities

- Operations Basically Nominal
 - Sequence C26 restarted DOY 144 after safing event
 - Excellent DSN support
 - GDSCC Familiarization Tour scheduled for next month
 - Minor S/C instrument anomalies being worked and recovered near real time.
 - Huygens Recovery Task Force response solution to be implemented:
 - Huygens mission delayed until Orbit Three
 - Probe Release in February 2005
 - Orbiter's Titan flyby altitude increased to 50,000 km from 1200 km
 - 100% of originally planned Huygens data recovery is expected
 - One Titan flyby added to start of Saturn Tour



Cassini Activities

- Superior Conjunction System Tests Completed
 - RS System Test in preparation for Superior Conjunction Experiment next year
 - TMOD Engineering Ka-band Link Analysis Experiment (DSS13)

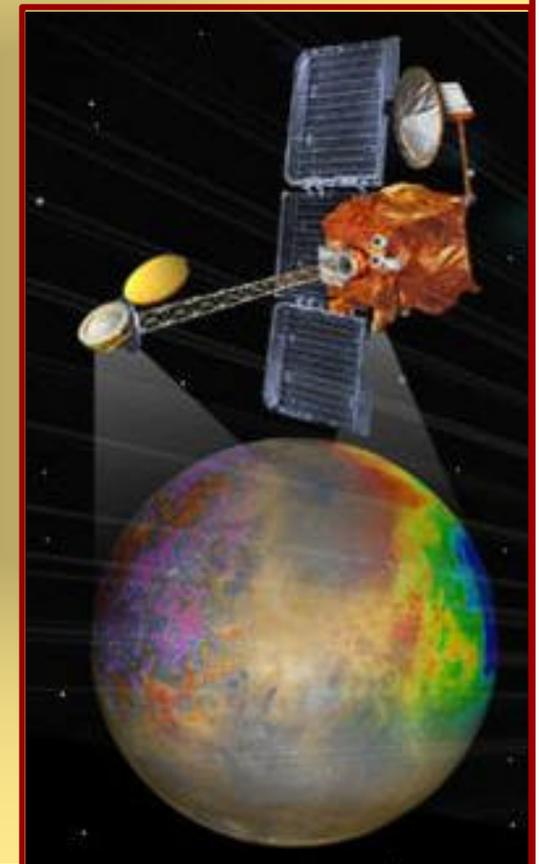
Mars Mission Management Office

Presentation to the

**Joint Users Resource Allocation
Planning (JURAP) Meeting**



June 21, 2001
E. E. Brower



<http://mars.jpl.nasa.gov/missions/present/globalsurveyor.html>



JPL

Mars Global Surveyor



AGENDA

- **Color Status**
- **Recent Events/Accomplishments**
- **C-Mode Anomaly**
- **Issues**



JPL

Mars Global Surveyor



COLOR STATUS

	MAR	APR	MAY
• FLIGHT OPERATIONS			
– SPACECRAFT	G	G	G
– NAVIGATION	G	G	G
– MISSION PLAN/SEQUENCE	G	G	G
• SCIENCE	G	G	G
• FLIGHT SUPPORT			
– GROUND DATA SYSTEM	G	G	G



JPL

Mars Global Surveyor



Recent Events/Accomplishments

- **Implemented AEM momentum dumping (saves 20% nadir fuel use) and 3 position SA step. Reduced SA panel exposure, extending shunt life**
- **Performed Relay22 minimum fuel mode (=>10 gm/d@nadir-16 deg.).**
- **126 ROTO Sequences executed to date**
- **Supporting MER UHF relay demonstration; negotiating MOA for EDL.**
- **Papers submitted for one-year mapping status report with instrument descriptions to appear in special issue of JGR**
- **Planetary quarantine study nearing completion. Letter sent to PQ official advising status. Average spacecraft cross section for operations (12 m²) and final position (6 m²) determined.**
- **Presented Resource Management and Performance Prediction Status to JPL Program Office on May 1**



JPL

Mars Global Surveyor



Recent Events/Accomplishments

- **FFT conducted to evaluate Solar Array induced microphonics**
 - New mode at 0.27 Hz not seen in A/B (before HGA deployment)
 - Peer Review June 21
- **Change request received to support Mars Odyssey aerobraking**
 - Requested daily TES/MOC WA/MHSA data samples
 - Playbacks to be scheduled for operations shifts (MAPGEN change)
 - Or request could preclude MER landing site observations and MGS science for 3.5 months
- **UHF closed loop test using Stanford was successfully tested**
- ***MGS completed its 10,000th mapping orbit. On June 3, at 4:33z***

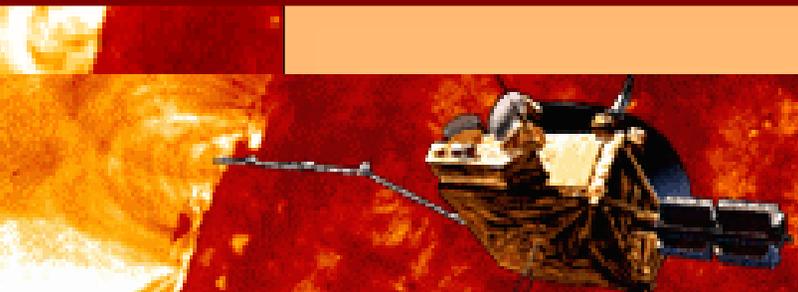


JPL

Mars Global Surveyor



- **2nd Extension proposal (Underway)** JUN 15
- **Beta supplement ends** JUN 22
- **UHF Uplink Test (uplink from Stanford)** JUN 26-28
- **16° off NADIR Relay Fuel Saving Experiment** JUN 28
- **MOLA N/S Polar Scan** AUG 6-8
- **NASA approval Extended Extended Mission** OCT 1
- **Second year mapping archive complete** OCT 30
- **Selection of Extended Extended mission plan** JAN 30, 2002
- **End of extended mission** APR 22
- **MER EDL** JAN-FEB 2004
- **End of E2 Extended Extended operations (tbd)** JUN 2004



ulysses

JOINT USERS RESOURCE ALLOCATION PLANNING COMMITTEE

I. J. Webb

June 21, 2001

NASA Jet Propulsion Laboratory



<http://ulysses.jpl.nasa.gov/>

ULYSSES

JOINT USERS RESOURCE ALLOCATION PLANNING COMMITTEE

- **OPERATIONS ARE NORMAL. THE SPACECRAFT BEGAN IT'S SECOND ORBIT AROUND THE SUN AND IS CURRENTLY IN NUTATION OPERATIONS. INSTRUMENT CALIBRATIONS AND RECONFIGURATIONS ARE PERFORMED AS REQUIRED.**
- **DOY 143 – DOY 172. 10 MANEUVERS WERE INITIATED TO CONTROL SPACECRAFT NUTATION. ALL 10 MANEUVERS WERE SOLACE MANEUVERS, (SLEW OPEN LOOP AND CONSCAN ENABLED).**
- **DOY 147 / 10:45 – 11:29, DSS 24, BLOWN UPLINK HANDOVER. STATION USED TSF TRANSFER VERSUS XA TRANSFER. PROBLEMS WITH UPLINK RESULTED IN A SOLACE MANEUVER BEING PERFORMED AT 147/13:36.**
- **DOY 149 – DSS 63, STATION ADJUSTED UPLINK TRANSMITTER POWER FROM 0.6 KW TO 1.1 KW WITHOUT FIRST OBTAINING PROJECT APPROVAL, WHICH CAUSED NUTATION TO INCREASE.**
- **DOY 152 – DSS 63, STATION ADJUSTED UPLINK TRANSMITTER POWER FROM 0.7 KW TO 1.0 KW WITHOUT FIRST OBTAINING PROJECT APPROVAL, WHICH CAUSED NUTATION TO INCREASE.**
- **DOY 156/13:41 - 15:00 – DSS 24, CPA FAILURE WITH ACCOMPANYING CMA LEVEL CHANGES, RESULTING IN THE NEED OF A SOLACE MANEUVER AT 15:45.**

ULYSSES

JOINT USERS RESOURCE ALLOCATION PLANNING COMMITTEE

- **DOY 122 – DSS 14, CPA WAS REFLECTING OFF STATUS WHEN DRIVE WAS ON. STATION DEMOTED CMA TO IDLE2, THEREBY REMOVING COMMAND MOD SUB-CARRIER, WHICH CAUSED NUTATION TO INCREASE.**
- **DOY 127 – DSS 63, OUR S-BAND TRANSMITTER TRIPPED OFF WHEN STATION PERSONNEL STARTED WARMING UP HIGH POWER TRANSMITTER FOR THE UPCOMING PASS.**
- **DOY 130 – DSS 43, ANTENNA HALT DUE TO BEARING ACCUMULATOR PUMP #2 FAILURE. SWAPPED TO PUMP #1 AND DID A RE-ACQUISITION.**
- **DOY 131 – DSS 63, STATION PERSONNEL NOTED AN OUTPUT POWER OF 0.7KW AND READJUSTED TO 1.0KW, CAUSING RAPID NUTATION GROWTH.**
- **DOY 134 – SPC 60, COMPLEX WIDE POWER FAILURE. STARTED UPLINK WITHIN AN HOUR. THIS FAILURE CAUSED RAPID NUTATION GROWTH (.05 TO .25 DEGREES).**



International Solar Terrestrial Physics

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<http://www-istp.gsfc.nasa.gov/istp/>

ISTP



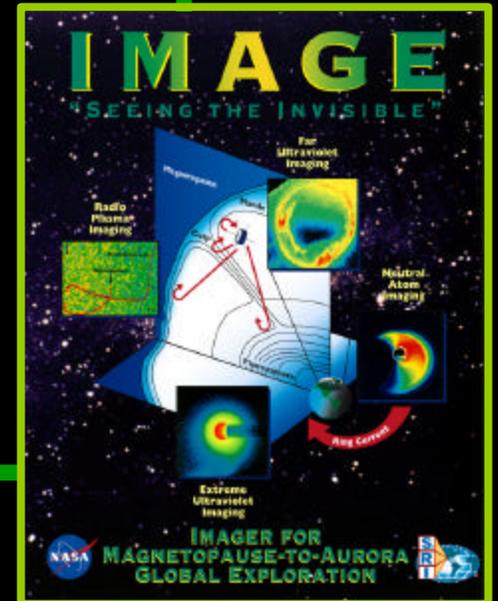
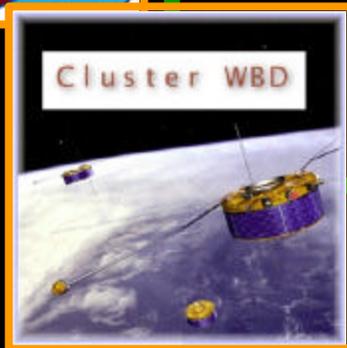
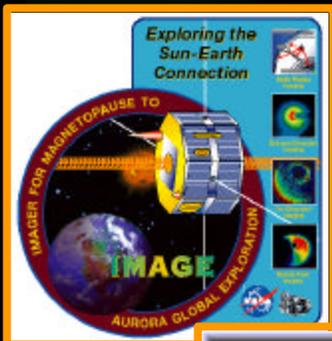
Joint Users Resource Allocation Planning Committee (JURAP)

ACE, IMAGE, POLAR

SOHO, WIND

R. Dutilly

June 21, 2001

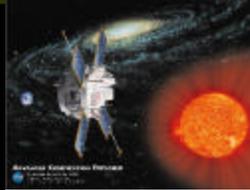


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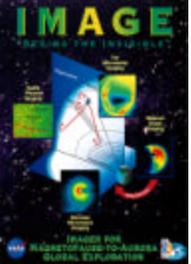


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MONTHLY SPACECRAFT & PAYLOAD STATUS FOR ACE, IMAGE, POLAR, SOHO AND WIND

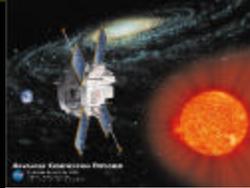
- ACE spacecraft and subsystems are operating nominally. Remaining 34M command uplink test are real time supports with DSS34 and DSS54 which have not yet occurred due to scheduling difficulties. The DSN anomaly chart is included for the period January to June 1st.
- IMAGE is operating nominally. Service and data collection rates are excellent with no significant data losses. The average during mission support is about 2 discrepancies/week. Next month we are going to a two station operation; 26M uplink and 34M HEF downlink for our supports.
- POLAR is in nominal operations. Presentation on the upcoming POLAR activities will be made at the July JURAP meeting. POLAR is presently in low power season and is using the batteries for additional power.
- SOHO has completed continuous operations and is operating nominally. The DSN anomaly chart is included for the year to date. Command testing for the 34M system has so far been successful but one test remains with DSS24.
- WIND has been operating nominally. The DSN anomaly chart for WIND/POLAR is included.



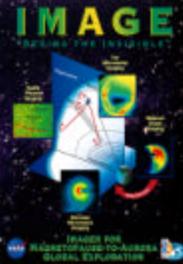


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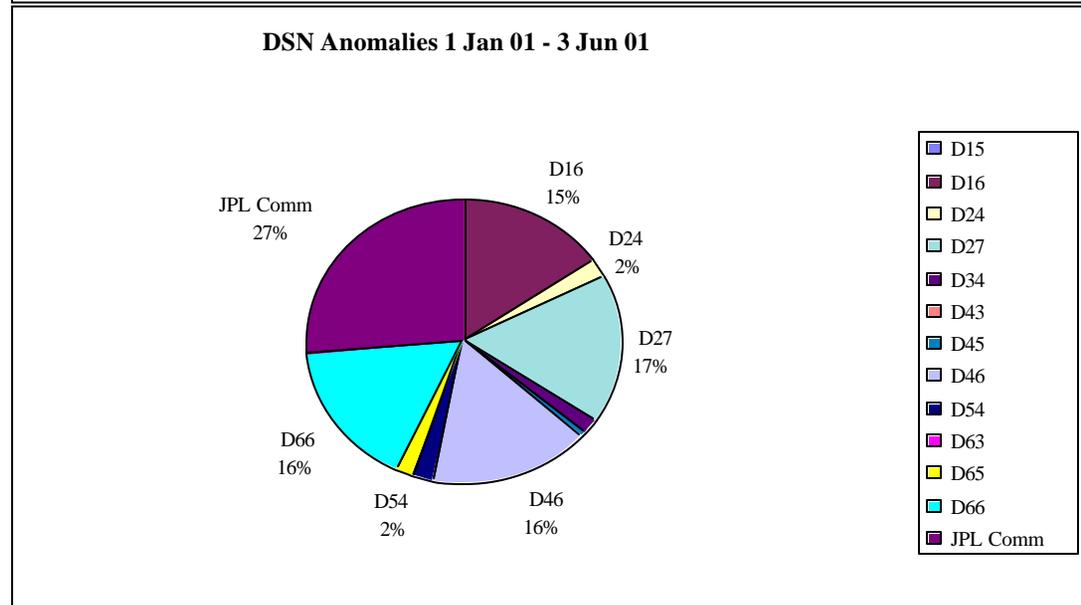
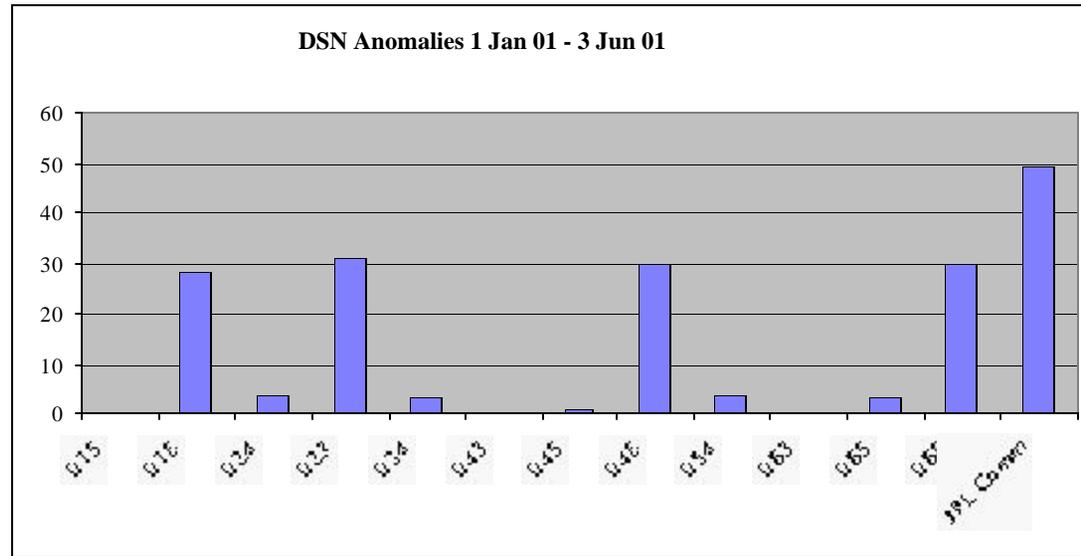
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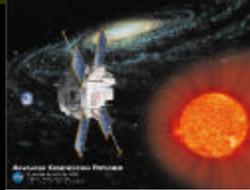
SOHO DSN ANOMALY COUNT THIS YEAR





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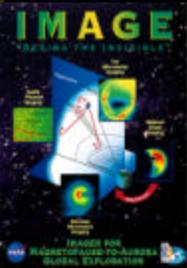
WIND/POLAR Discrepancies May 2001

WIND

	D16	D24	D27	D34	D43	D45	D46	D54	D63	D65	D66	JPL Comm	Total
	0	1	0	1	0	0	0	2	0	0	0	0	4

POLAR

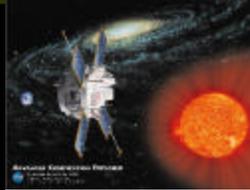
	D16	D24	D27	D34	D40	D45	D46	D54	D63	D65	D66	JPL Comm	Total
	0	0	0	0	0	0	4	2	0	0	7	0	13



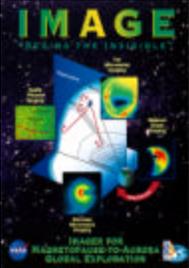


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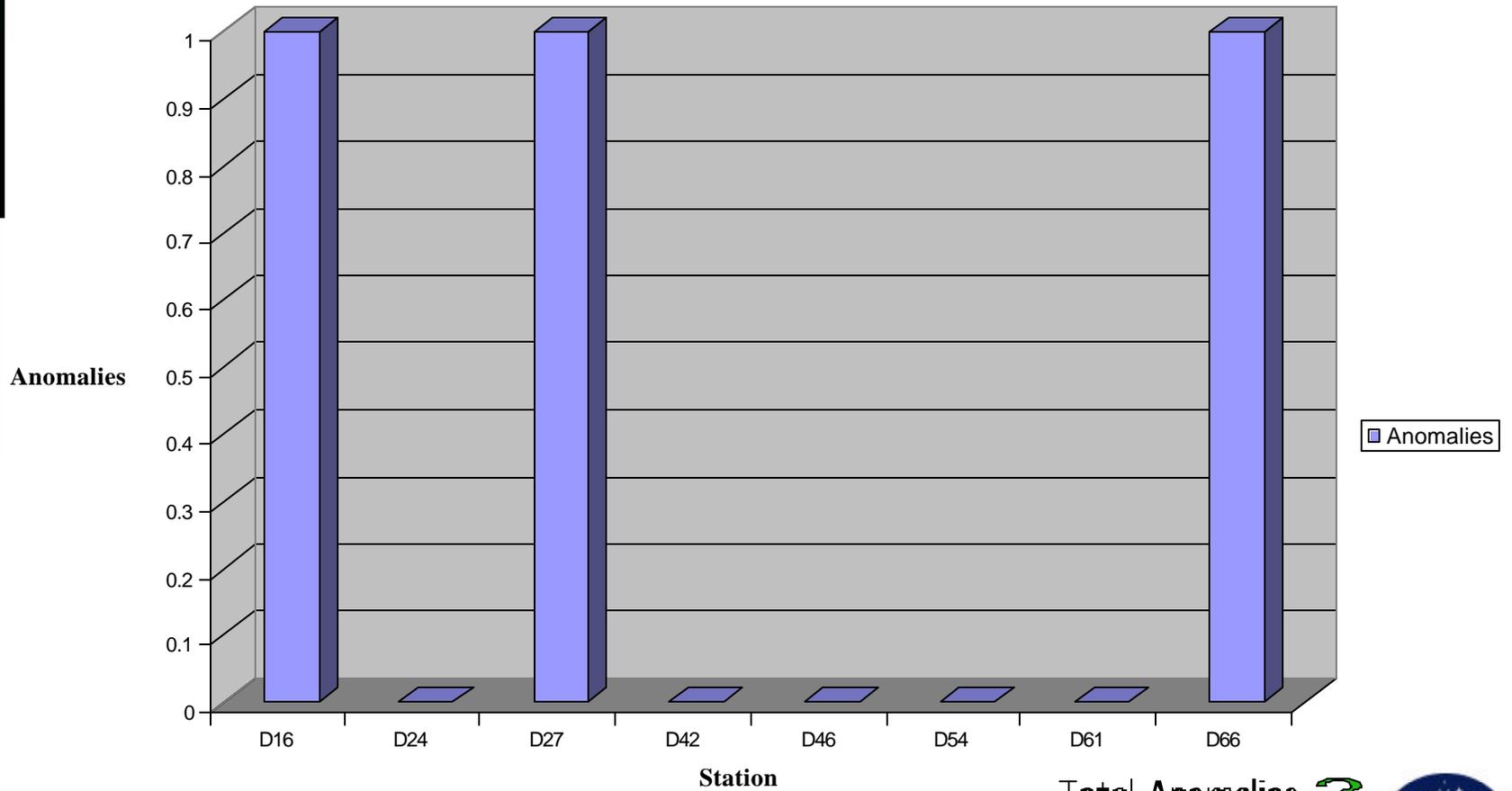
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ACE DSN Anomalies 10 May - 20 June 01



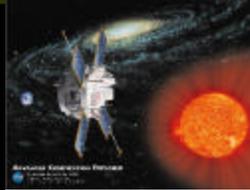
Total Anomalies 3





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ISSUES

- **CAST TOOL - FOR 25 MONTHS (AND CONTINUING TO COUNT) GSFC HAS ATTEMPTED TO PUT THE JPL CAST TOOL IN THE HANDS OF OUR SCHEDULERS IN ORDER TO APPROVE CONFLICT RESOLUTION EFFICIENCY. THIS IS STILL A CONTINUING ISSUE!!!**
 - We are still are not using the tool yet or have the training for our DSN schedulers!!!
 - One issue is obtaining accounts for the GSFC schedulers which is holding up everything.
 - Current issue is that there is a significant delay in getting CAST to work on the CSOC server
 - Scheduler will be traveling to GSFC in August to provide training
- Missions are preparing for the 26M testing to start in late summer

