

Resource Allocation Review



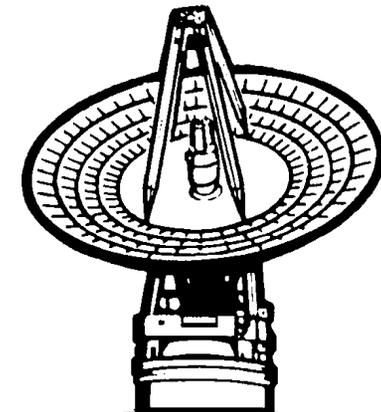
Resource Contention

Version 2.1

2002 - 2011

William Hincy

February 13, 2001





Resource Allocation Review Agenda

- ◆ **Loading Study**
 - Changes in Requirements
 - User / Mission Planning Set
 - DSN Antenna Implementation
 - DSN Major Downtimes

- ◆ **Periods of Contention**

- ◆ **Requirements Analysis and Recommendations**
 - 2002 - 11/2/03 Activities in Contention / Recommendations



Resource Allocation Review Loading Study

Changes in Requirements

New Projects / Major Changes

- Deep Impact launch moved to 01/02/04
- Galileo extended end of extended mission to 01/15/03
- Genesis launch moved to 06/27/01
- Image extended end of prime mission to 05/30/02
- LUNAR - A launch moved to 08/09/03
- MAP launch moved to 06/30/01
- Mars 01 Odyssey launch moved to 04/07/01
- Mars Exploration Rover A launch 05/30/03
- Mars Exploration Rover B launch 06/27/03
- Mars Reconnaissance Orbiter moved launch to 08/17/05
- MUSES-C launch moved to Nov or Dec 2002
- NEAP mission removed from database
- PKE mission cancelled
- Rosetta launch moved to 01/13/03
- SRTF launch moved to 07/15/02
- StarLight launch moved to 07/01/06
- Stereo launch moved to 11/26/04



Resource Allocation Review Loading Study

Changes in Requirements (Continued)

Changes in DSN Resource Support Requests

- Cluster 2 modified requirements in 2002-2005
- Contour modified requirements in 2002-2008
- Deep Impact increased support in 2004-2005
- Galileo added requirements in 2002-2003
- Genesis modified requirements in 2001-2003
- Gravity Probe B modified requirements in 2002-2003
- Ground Based Radio Astronomy increased requirements in 2002-2011
- MAP modified requirements in 2001-2006
- Mars Exploration Rover A added requirements in 2003-2004
- Mars Exploration Rover B added requirements in 2003-2004
- Mars Express Orbiter modified requirements in 2003-2008
- Mars Global Surveyor added support in 2002-2003
- Mars Reconnaissance Orbiter added requirements in 2005-2008
- Nozomi modified requirements in 2002-2004
- Stereo modified requirements in 2004-2006



Resource Allocation Review Loading Study

DSN User / Mission Planning Set - Ongoing 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	GLL	10/18/89	12/07/97	01/15/03
Ulysses	ULS	10/06/90	09/11/95	12/31/04
ISTP - Geotail	GEOT	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	09/30/01	---



Resource Allocation Review Loading Study

DSN User / Mission Planning Set - Ongoing Projects (Continued)

Project	Acronym	Launch or Start	EOPM	EOEM
ISTP - SOHO	SOHO	12/02/95	05/02/98	12/30/05
Near Earth Asteroid Rendezvous	NEAR	02/17/96	02/14/01	TBD
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	04/28/02
Highly Advanced Laboratory for Communications and Astronomy	VSOP	02/12/97	09/30/01	---
Advance Composition Explorer	ACE	08/25/97	02/01/01	02/01/03
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	03/30/02	---



Resource Allocation Review Loading Study

DSN User / Mission Planning Set - Ongoing Projects (Continued)

Project	Acronym	Launch or Start	EOPM	EOEM
ISTP - Cluster II (First Launch)	CLU2	07/12/00	10/12/02	TBD
ISTP - Cluster II (Second Launch)	CLU2	08/09/00	11/09/02	TBD
2001 Mars Odyssey	M01O	04/07/01	08/01/04	09/19/07
Genesis	GNS	06/27/01	08/12/04	---
Microwave Anisotropy Probe	MAP	06/30/01	07/21/03	09/30/06
International Gamma Ray Astrophysics Lab	INTG	04/22/02	06/23/04	06/23/07
Comet Nucleus Tour (CONTOUR)	CNTR	07/01/02	08/31/08	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	---
* Planning dates				



Resource Allocation Review Loading Study

DSN User / Mission Planning Set - Advanced Planning Projects

Project	Acronym	Launch or Start	EOPM	EOEM
Mars Express Orbiter	MEO	06/01/03	12/01/05	07/31/08
Mars Exploration Rover - A	MERA	05/30/03	04/06/04	---
Mars Exploration Rover - B	MERB	06/27/03	05/10/04	---
Lunar - A	LUNA	08/09/03	03/03/04	---
Deep Impact	DEEP	01/02/04	08/02/05	---
Messenger	MSGR	03/23/04	09/30/10	---
Stereo Leading	SLED	11/26/04	02/04/07	02/04/10
Stereo Lagging	SLAG	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	TBD	TBD
StarLight	SL	07/01/06	06/30/07	---
Highly Advanced Laboratory for Communications and Astronomy*	VSP2	01/01/07	01/01/12	---
Solar Probe	SOLP	02/01/07	03/31/15	---



Resource Allocation Review Loading Study

DSN User / Mission Planning Set - Advanced Planning Projects (Continued)

Project	Acronym	Launch or Start	EOPM	EOEM
Mars 07 Lander	M07L	09/22/07	09/26/09	---
ARISE*	ARSE	01/01/08	01/01/13	---
* Planning dates				



Resource Allocation Review Loading Study

DSN Antenna Implementation

- DSS-26 First Delivery Date Changed to 08/01/02



Resource Allocation Review Loading Study

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	10/1/2007	N/A	N/A	N/A
DSS-15	34HEF	XXXX	XXXX	N/A	XXXX	XXXX	10/1/2004	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-23	11M	XXXX	N/A	N/A	XXXX	XXXX	N/A	N/A	XXXX	12/31/2000
DSS-24	34B1	XXXX	XXXX	XXXX	XXXX	5/15/2004	5/15/2004	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	8/1/2002	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	12/31/2000
DSS-34	34B1	XXXX	XXXX	XXXX	XXXX	XXXX	12/15/2003	N/A	N/A	N/A
DSS-43	70M	XXXX	XXXX	XXXX	XXXX	XXXX	10/1/2008	N/A	N/A	N/A
DSS-45	34HEF	XXXX	XXXX	N/A	XXXX	XXXX	10/1/2005	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	12/31/2000
DSS-54	34B1	XXXX	XXXX	XXXX	XXXX	XXXX	1/15/2003	N/A	N/A	N/A
DSS-63	70M	XXXX	XXXX	XXXX	XXXX	10/11/2001	10/1/2009	N/A	N/A	N/A
DSS-65	34HEF	XXXX	XXXX	N/A	XXXX	XXXX	10/1/2006	N/A	N/A	N/A
DSS-66	26M	XXXX	XXXX	XXXX	N/A	N/A	N/A	N/A	N/A	N/A
XXXX = Capability Currently Exists N/A = Capability Not Planned										1/26/2002



Resource Allocation Review Loading Study

DSN Major Downtimes

MAJOR DSN DOWNTIMES by DATE									
	Year	Site	Description	Start	End	Duration (Days)	Weeks	Start DOY	End DOY
Approved									
	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
	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
Proposed									
	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	03/30/03	181	40-13	274	089
	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 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



Resource Allocation Review Periods of Contention

<u>Item</u>	<u>Year</u>	<u>Period</u>	<u>Weeks</u>	<u>Subnet</u>
01A	2002	Late January	04	70M
01B	2002	Late January - Early March	05 - 09	70M
02	2002	Early March - Early July	10 - 27	70M
03	2002	Mid-July - Late September	29 - 39	DSS-14
04	2002	October - Late November	40 - 47	70M
05	2002	Late November - Early February	48 - 06	70M
06	2002	Early June - Early July	23 - 27	34HEF
07	2002	Mid-July - Late September	29 - 39	34HEF
08	2002	October - Late November	40 - 47	DSS-45
09	2002	Early December - Early February	49 - 06	DSS-65
10	2002	October - Late November	40 - 47	34BWG1
11	2002	Early June - Early July	23 - 27	DSS-25
12	2002	October - March	40 - 13	DSS-26
13	2002	October - Late November	40 - 47	DSS-27
14	2002	October - Late November	40 - 47	26M



Resource Allocation Review Periods of Contention

(Continued)

<u>Item</u>	<u>Year</u>	<u>Period</u>	<u>Weeks</u>	<u>Subnet</u>
15	2003	Mid-February - Mid-April	07 - 16	DSS-63
16	2003	Late September - Early October	39 - 40	70M
17	2003	Mid-October - Late October	42 - 43	70M
18	2003	Mid-February - Mid-April	07 - 16	34HEF
19	2003	Mid-June	25	34HEF
20	2003	Late June - Mid-July	26 - 29	34HEF
21	2003	Late July	30	34HEF
22	2003	Mid-August - Late August	33 - 34	34HEF
23	2003	Mid- September	38	DSS-15, 65
24	2003	January - Early February	01 - 06	34BWG1
25	2003	Mid-February - Early April	07 - 14	DSS-34
26	2003	Mid-February - Early April	07 - 14	DSS-25
27	2003	Mid-June - Early July	25 - 28	DSS-25
28	2003	January - September	1,5,13,17,25,29,33,37	26M



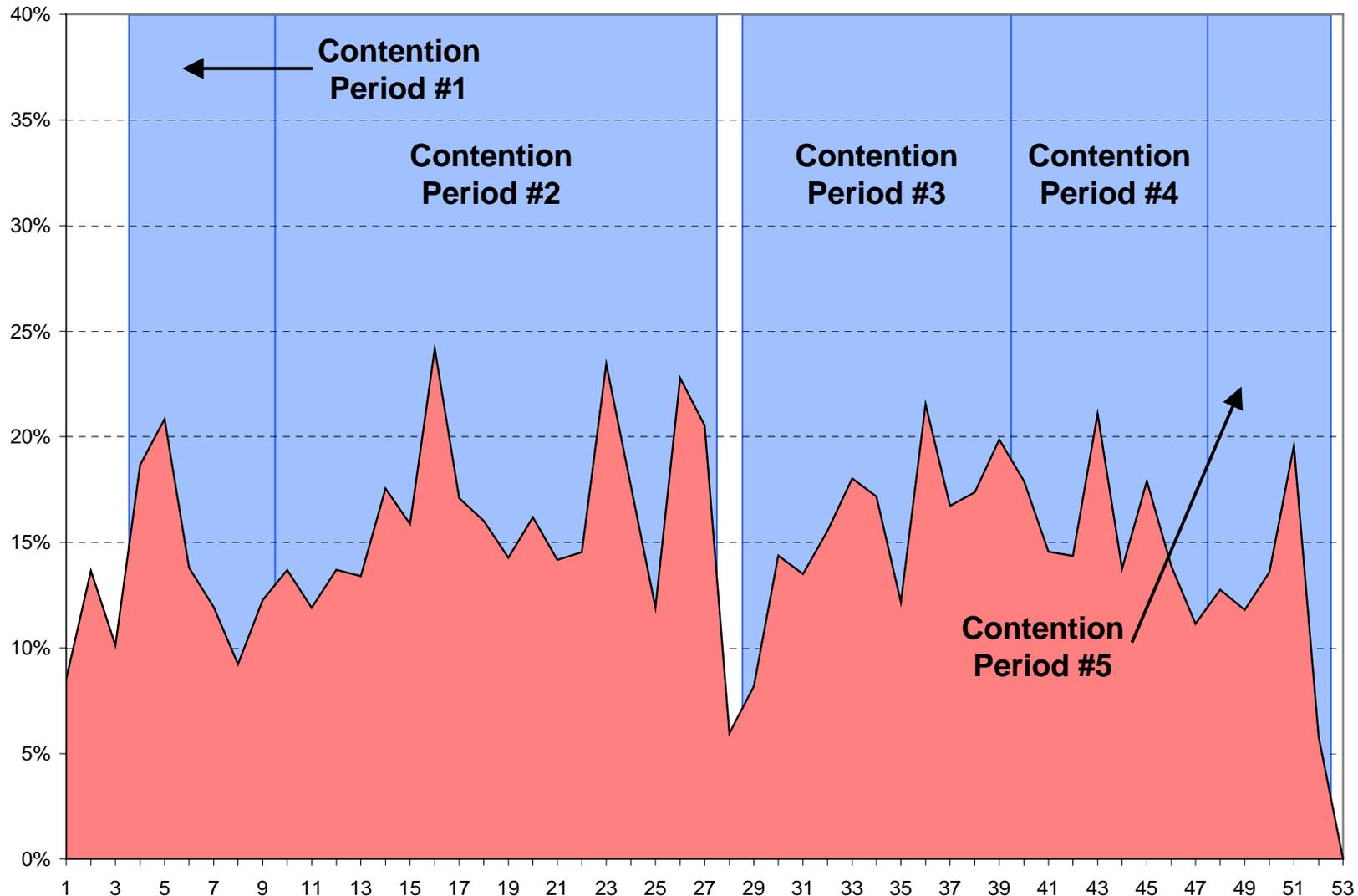
Resource Allocation Review Requirements Analysis and Recommendations

2002 Activities in Contention / Recommendations

Resource Allocation Review Requirements Analysis and Recommendations



2002 Weekly Contention Percent - 70M

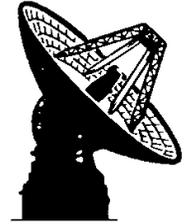




Resource Allocation Review

Requirements Analysis and Recommendations

2002 - Contention Period #01A - 70M
Late January (Week 04)



<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u>
DSS	BEARING/ROUTINE MAINT, 6 - 10.5 HRS	5
GBRA	HOST COUNTRY, DSS-43, 24 HRS	1
	PLANET R/AST, DSS-14, M-WAVE SPECT, 9 HRS	4
GLL	ROUTINE SUPPORT	14
GSSR	ASTEROID NEREUS, DSS-14, 5.9 HRS	6
M010	TRANSITION TO MAPPING SUPPORT	21
MAP	ROUTINE SUPPORT, 45 MIN	7
SVLB	ROUTINE SUPPORT	1
VGR1	ROUTINE U/L SUPPORT, 2.5 HRS	1
VGR2	ROUTINE U/L SUPPORT, DSS-43, 2.5 HRS	1



Resource Allocation Review

Requirements Analysis and Recommendations

2002 - Contention Period #01A - 70M
Late January (Weeks 04) (Continued)



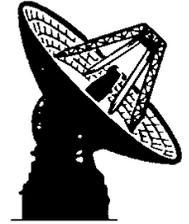
<u>USER</u>	<u>RECOMMENDATION</u>
DSS	REDUCE TO ONE 8-HR ROUTINE SUPPORT, DSS-14, 63 (M010, GSSR)
GBRA	HOST COUNTRY REQUESTED SUPPORT USING THREE 8-HR PASSES, DELETE DSS-14 PLANET R/AST, AND REDUCE M-WAVE SPECT TO 4-HR SUPPORTS (DSS, GLL, GSSR, M010, MAP)
GLL	REDUCE TO ONE 8-HR AND THIRTEEN 5-HR PASSES (DSS, M010)
GSSR	REQUESTED SUPPORT
M010	REQUESTED SUPPORT USING THREE 5-HR SUPPORTS AT 34HEF (DSS)
MAP	REQUESTED SUPPORT USING DSS-43, 63 (DSS, M010)
SVLB	REDUCE SUPPORT TO 4-HRS AT DSS-43, 63, DELETE DSS-14 SUPPORT (DSS, GBRA, GLL, GSSR, M010, MAP)
VGR1	REQUESTED SUPPORT
VGR2	REQUESTED SUPPORT



Resource Allocation Review

Requirements Analysis and Recommendations

2002 - Contention Period #01B - 70M
Late January - Early March (Weeks 05 - 09)



<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u>
DSN	ANTENNA CALIBRATION	1
DSS	BEARING/ROUTINE MAINT, 6 - 10.5 HRS	5 - 6
EVN	ROUTINE SUPPORT, DSS-14\63, WK 05, 16 HRS	2
GBRA	PLANET R/AST, DSS-14, M-WAVE SPECT, 9 HRS	4
	RA500 WCB, DSS-14\63, WK 05, 24 HRS	1
	VLBA WCB, DSS-14\63, WK 06	1
GLL	ROUTINE SUPPORT	14
GPB	ROUTINE SUPPORT, DSS-14\43\63, WK 05	1
GSSR	ASTEROID NEREUS, DSS-14, WK 05, 5.9 HRS	1
	MERCURY, WK 06 AND 07, 4 HRS	1
M010	MAPPING SUPPORT, 7 HRS	14
MAP	ROUTINE SUPPORT, 45 MIN	7
SVLB	ROUTINE SUPPORT, WK 06 - 08	1
VGR1	ROUTINE U/L, 2.5 HRS	1
	MAGROL, DSS-14, WK 05, 7 HRS	1
VGR2	ROUTINE U/L SUPPORT, DSS-43, 2.5 HRS	1
	ROUTINE SUPPORT, DSS-43, WK 06 AND 07	3 - 4



Resource Allocation Review

Requirements Analysis and Recommendations

2002 - Contention Period #01B - 70M

Late January - Early March (Weeks 05 - 09) (Continued)



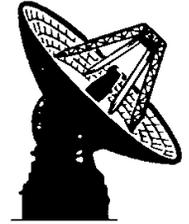
<u>USER</u>	<u>RECOMMENDATION</u>
DSN	REDUCE SUPPORT TO 4 HRS
DSS	REDUCE DSS-14 TO ONE ROUTINE SUPPORT IN WK 06 AND 09 (M010, GLL, GSSR)
EVN	MOVE SUPPORT TO WK 08 AND REDUCE TO 12 HRS (DSS, GLL, GSSR, M010)
GBRA	REDUCE PLANET R/AST AND M-WAVE SPECT TO 4 - 6 HRS MOVE RA500 WCB TO WK 08 USING TWO 12-HR SUPPORTS REQUESTED VLBA WCB (DSS, GLL, GSSR, M010, MAP)
GLL	REDUCE ROUTINE SUPPORT TO 5-HR PASSES (DSS, EVN, GBRA, GPB, GSSR, M010)
GPB	REQUESTED SUPPORT
GSSR	REQUESTED SUPPORT
M010	REQUESTED SUPPORT USING SEVEN SPLIT PASSES (DSS, GLL)
MAP	REQUESTED SUPPORT
SVLB	REDUCE SUPPORT TO 6-HRS (DSS, GBRA, GLL, GSSR, M010, MAP)
VGR1	REQUESTED SUPPORT
VGR2	REQUESTED U/L, REDUCE ROUTINE SUPPORT TO 5 HRS



Resource Allocation Review

Requirements Analysis and Recommendations

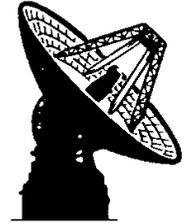
2002 - Contention Period #02 - 70M
Early March - Early July (Weeks 10 - 27)



<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u>
DSS	BEARING REGROUT, DSS-63, WK 23, 72 HRS	1
	ROUTINE/BEARING MAINTENANCE, 6 - 10.5 HRS	4 - 6
EVN	ROUTINE SUPPORT, DSS-14\63, WK 16, 16 HRS	1
GBRA	HOST COUNTRY, DSS-43, 63, WK 15, 16, 24 HRS	1
	RA500 WCB, DSS-14\63, WK 14, 27, 24 HRS	1
	RADIO STARS WCB, DSS-14\63, WK 13, 20, 26, 14 HRS	1
	PLANET R/AST, DSS-14, M-WAVE SPECT, 9 HRS	4
GLL	ROUTINE SUPPORT	14
GPB	ROUTINE SUPPORT, DSS-14\43\63, WK 16, 6.5 - 12 HRS	1
GSSR	ASTEROID 1999GU3, DSS-14, WK 16 AND 17, 10 HRS	2 - 3
	ASTEROID 1992FE, DSS-14, WK 26 AND 27, 6 HRS	1 - 3
M01O	MAPPING, 7 HRS	14
MAP	MANEUVER SUPPORT, WK 15	3



Resource Allocation Review
Requirements Analysis and Recommendations
2002 - Contention Period #02 - 70M
Early March - Early July (Weeks 10 - 27) (Continued)



<u>USER</u>	<u>RECOMMENDATION</u>
DSS	MOVE REGROUT TO WK 12, REQUESTED SUPPORT DSS-14 USING 2 HRS OFF-SHIFT, AND REQUESTED SUPPORT DSS-63 USING 2 HRS OFF-SHIFT IN WK 23, 24, 26, AND 27 (M010)
EVN	REDUCE SUPPORT TO 12 HRS AND MOVE TO WK 21 (GLL, GSSR, M010)
GBRA	HOST COUNTRY AND RA500 REQUESTED SUPPORT USING THREE 8-HR SUPPORTS/EVENT , RADIO STARS WCB REDUCE SUPPORT TO 8 HRS, PLANET R/AST AND M-WAVE SPECT REDUCE TO 4- 6 HRS
GLL	REDUCE TO SEVEN 8-HR AND FOUR 4-HR PASSES IN WK 10 - 15 AND TO SEVEN 8-HR PASSES IN WK 16 - 27 (DSS, GSSR, M010)
GSSR	REQUESTED SUPPORT
M010	USE TWELVE 8-HR AND FOUR 4-HR PASSES IN WK 10 - 15 AND REDUCE 3 PASSES/WK TO 4 HRS IN WK 16 - 27 (DSS, GLL)
MAP	REQUESTED SUPPORT



Resource Allocation Review

Requirements Analysis and Recommendations

2002 - Contention Period #03 - DSS-14
Mid-July - Late September (Weeks 29 - 39)



<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u> (DOY 196 - 272)
DSS	NSP/70M SERVO DRIVE UPGRADE DOWNTIME	
DSN	ANTENNA CALIBRATION, WK 29, 31 - 33, 36 - 38	0 - 1
EVN	ROUTINE SUPPORT, DSS-14\63, WK 30, 16 HRS	2
	CALIBRATION, DSS-14\63, WK 38, 3 HRS	1
GBRA	PLANET R/AST AND M-WAVE SPECT, 9 HRS	2
	RADIO STARS WCB, DSS-14\63, WK 33, 39, 14 HRS	1
	VLBA WCB, DSS-14\63, WK 32 AND 36	1
GLL	ROUTINE SUPPORT	2 - 5
GODR	ROUTINE SUPPORT, DSS-14/15, WK 30, 32, 34	1
GPB	ROUTINE SUPPORT, DSS-14\43\63, WK 37, 12 HRS	1
GSSR	MERCURY SUPPORT, WK 34, 36 - 39, 4 HRS	1 - 3
M010	MAPPING, 7 HRS	4 - 5
MAP	ROUTINE SUPPORT, 45 MIN	2 - 3
SVLB	ROUTINE SUPPORT, WK 29 - 30, 32 - 34, 37 - 39	0 - 1
ULYS	ROUTINE SUPPORT, WK 30, 34, 36, 38, 39, 4 - 5 HRS	3
VGR1	MAGROL, WK 31, 38 AND UPLINK, 2.5 - 7 HRS	1 - 2

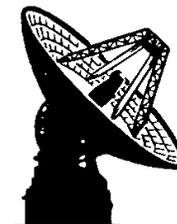


Resource Allocation Review

Requirements Analysis and Recommendations

2002 - Contention Period #03 - DSS-14

Mid-July - Late September (Weeks 29 - 39) (Continued)



<u>USER</u>	<u>RECOMMENDATION</u>
DSS	REQUESTED DOWNTIME (DELETE MAINTENANCE) AND REDUCE DSS-63 TO ONE 8-HR SUPPORT/WK
EVN	MOVE ROUTINE SUPPORT TO WK 28 AND CALIBRATION TO WK 40
GBRA	DELETE DSS-14 M-WAVE SPECT AND PLANET R/AST SUPPORT, REDUCE RADIO STARS TO 12 HRS AND MOVE TO WK 28 AND 40, MOVE VLBA WCB SUPPORT TO WK 28 AND 41
GLL	REDUCE TO SIX 5 - 6 HR SUPPORTS USING DSS-63 IN WK 31 - 39 (DSS, M010)
GODR	MOVE SUPPORT TO WK 46, 47, AND 48
GSSR	DELETE MERCURY SUPPORT
M010	CHANGE TO SIX 9-HR PASSES AT DSS-43 AND FIVE 5-HR PASSES AT DSS-63
MAP	REQUESTED SUPPORT USING DSS-43, 63
SVLB	REQUESTED SUPPORT USING DSS-43, 63
ULYS	REQUESTED SUPPORT USING DSS-24
VGR1	MAGROL SUPPORT USING DSS-24, 25 AND USE DSS-43, 63 FOR UPLINK SUPPORT



Resource Allocation Review

Requirements Analysis and Recommendations

2002 - Contention Period #04 - 70M
October - Late November (Weeks 40 - 47)



<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u>
DSS	BEARING/ROUTINE SUPPORT, 6 - 10.5 HRS	5 - 6
GBRA	HOST COUNTRY, DSS-63, WK 41, 24 HRS	1
	PLANET R/AST, DSS-14, WK 40 - 42, 46 - 47	1
	M-WAVE SPECT, 9 HRS	3
	RA500 WCB, DSS-14\63, WK 40, 24 HRS	1
GLL	ROUTINE SUPPORT	2 - 14
	ENCOUNTER SUPPORT, WK 44, 45	3 - 12
GSSR	ASTEROID 1997XF11, DSS-14, WK 43 - 45, 6 HRS	3 - 6
M01O	MAPPING SUPPORT, 7 HRS	14
ULYS	ROUTINE SUPPORT, DSS-14, WK 43, 4 HRS	3
VGR1	DTR ARRAY, DSS-14/15, WK 43, 7.4 HRS	1
	MAGROL, DSS-14, WK 44, 7 HRS	1



Resource Allocation Review

Requirements Analysis and Recommendations

2002 - Contention Period #04 - 70M

October - Late November (Weeks 40 - 47) (Continued)



<u>USER</u>	<u>RECOMMENDATION</u>
DSS	REDUCE DSS-14, 63 TO ONE 8-HR ROUTINE SUPPORT/ANTENNA/WK (GLL, M01O)
GBRA	REQUESTED HOST COUNTRY AND RA500 SUPPORT USING TWO 12-HR SUPPORTS, REDUCE PLANET R/AST AND M-WAVE SPECT TO 4 - 6 HRS (DSS, GLL, M01O)
GLL	REQUESTED ENCOUNTER SUPPORT, REDUCE ROUTINE SUPPORT TO SIX 4-HR PASSES IN WKS 40 - 44, 46, 47 (DSS, M01O)
GSSR	REQUESTED SUPPORT
M01O	REQUESTED SUPPORT USING ELEVEN 8-HR AND SIX 4-HR PASSES (DSS, GLL, ULYS)
ULYS	REQUESTED SUPPORT
VGR1	MAGROL USING DSS-15 (GSSR)



Resource Allocation Review

Requirements Analysis and Recommendations

2002 - Contention Period #05 - 70M

Late November - Early February (Weeks 48 - 06)



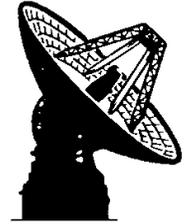
<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u> (DOY 329 - 040)
DSS	DSS-43 NSP AND 70M SERVO DRIVE DOWNTIME BEARING/ROUTINE MAINTENANCE	5 - 6
DSN	ANTENNA CALIBRATION, WK 49 - 51, 01 - 03, 05 - 06	1
EVN	ROUTINE SUPPORT, DSS-14\63, WK 04, 16 HRS	2
GBRA	PLANET R/AST, DSS-14, M-WAVE SPECT, 9 HRS	3 - 4
	HOST COUNTRY, DSS-43, 63, WK 03 - 04, 24 HRS	1
	RADIO STARS, DSS-14\63, WK 50, 14 HRS	1
	RA500 WCB, DSS-14\63, WK 02, 24 HRS	1
	VLBA WCB, DSS-14\63, WK 48 - 49, 01, 06	1
GLL	ROUTINE SUPPORT, WK 48 - 03	6 - 14
GODR	ROUTINE SUPPORT, DSS-14/15, WK 01, 03, 05	1
GPB	ROUTINE SUPPORT, DSS- 14\43\63, WK 06	1
GSSR	MERCURY, DSS-14, WK 02 - 04, 5.5 HRS	2 - 3



Resource Allocation Review Requirements Analysis and Recommendations

2002 - Contention Period #05 - 70M

Late November - Early February (Weeks 48 - 06) (Continued)



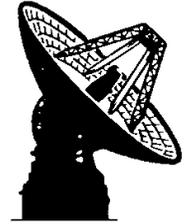
<u>USER</u>	<u>CONTENTION (Continued)</u>	<u>PASSES/WK</u>
M010	MAPPING, WK 48 - 52, 7 HRS	2 - 14
MAP	MANEUVER, WK 01/ROUTINE, 45 MIN - 8 HRS	9
NOZO	ROUTINE SUPPORT, DSS-43, WK 49 - 51	2
SVLB	ROUTINE SUPPORT, WK 50 - 52, 02 - 04, 06	1
ULYS	ROUTINE SUPPORT, DSS-14, WK 50 - 52, AND DSS-63, WK 01 - 04, 4 - 10 HRS	3 - 4
VGR1	MAGROL, DSS-14, WK 05 /UPLINK, 2.5 - 7 HRS NEGOTIATED, WK 51 - 06, 4 - 8 HRS	1 - 2 3 - 14
VGR2	MAGROL, WK 51/UPLINK, DSS-43, 2.5 - 7 HRS NEGOTIATED, DSS-43, WK 51 - 06	1 - 2 3 - 7



Resource Allocation Review Requirements Analysis and Recommendations

2002 - Contention Period #05 - 70M

Late November - Early February (Weeks 48 - 06) (Continued)



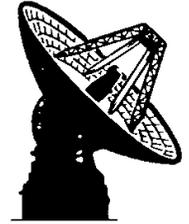
<u>USER</u>	<u>RECOMMENDATION</u>
DSS	REQUESTED DOWNTIME (DELETE DSS-43 MAINT) AND REDUCE DSS-14, 63 TO ONE 8-HR ROUTINE SUPPORT/ANTENNA
DSN	REQUESTED SUPPORT USING DSS-14, 63
EVN	MOVE TO WK 19
GBRA	DELETE DSS-43 M-WAVE SPECT AND REDUCE DSS-14, 63 TO 7 HRS, MOVE HOST COUNTRY TO WK 22 AND RA500 WCB TO WK 24, MOVE VLBA WCB TO WK 23
GLL	REDUCE TO NINE 8-HR AND TWO 5-HR SUPPORTS USING DSS-14, 63 IN WK 48 - 52, REQUESTED SUPPORT IN WK 01 - 03 (DSS, GBRA, M01O)
GODR	MOVE WK 01 AND 03 SUPPORT TO WK 25 AND WK 27
GPB	MOVE TO 2002 WK 47
GSSR	REDUCE TO 4-HR SUPPORTS
M01O	REQUESTED SUPPORT USING DSS-14, 63 IN WK 48 - 52



Resource Allocation Review Requirements Analysis and Recommendations

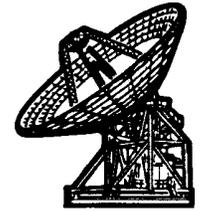
2002 - Contention Period #05 - 70M

Late November - Early February (Weeks 48 - 06) (Continued)

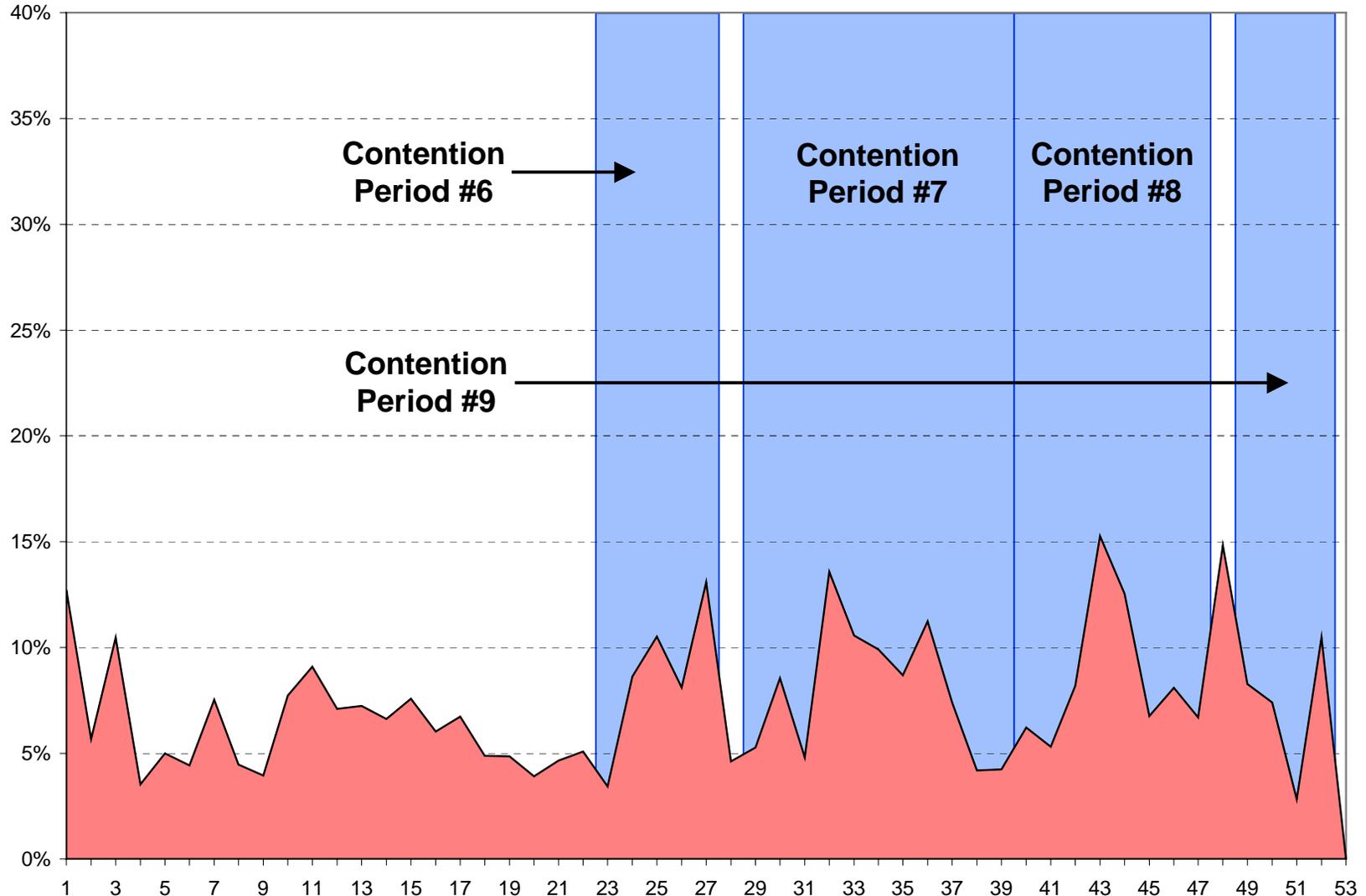


<u>USER</u>	<u>RECOMMENDATION (Continued)</u>
MAP	REQUESTED ROUTINE SUPPORT USING DSS-14, 63 REQUESTED MANEUVER USING DSS-14, 34, 63
NOZO	REQUESTED SUPPORT USING DSS-34
SVLB	REQUESTED SUPPORT USING DSS-14, 63
ULYS	REQUESTED SUPPORT USING TWO 5-HR SUPPORTS AT DSS-24, 54
VGR1	REQUESTED U/L SUPPORT USING DSS-14, 63 DELETE ROUTINE SUPPORT AND USE ONE DAILY 4-HR PASS AT DSS-25 IN WK 51 AND USE DSS-15 IN WK 52 - 06
VGR2	DELETE U/L SUPPORT MAGROL SUPPORT USING DSS-45 REDUCE ROUTINE SUPPORT TO SIX 4-HR PASSES AT DSS-45

Resource Allocation Review Requirements Analysis and Recommendations



2002 Weekly Contention Percent - 34HEF

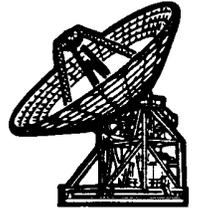




Resource Allocation Review

Requirements Analysis and Recommendations

2002 - Contention Period #06 - 34 HEF
Early June - Early July (Weeks 23 - 27)



<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u>
CAS	CONJUNCTION SUPPORT, DSS-45, 65	8 - 14
CNTR	LAUNCH SUPPORT, WK 27	15
DSS	ROUTINE MAINTENANCE, 6 - 8 HRS	3
MGS	MAPPING/BETA SUPPORT, 12 HRS	5 - 6

<u>USER</u>	<u>RECOMMENDATION</u>
CAS	REDUCE TWO PASSES IN WK 24 - 27 TO 4 HRS (DSS)
CNTR	REQUESTED SUPPORT
DSS	REDUCE DSS-45, 65 SUPPORT TO 4 HRS IN WK 24 - 27 (CAS, MGS)
MGS	REQUESTED SUPPORT



Resource Allocation Review

Requirements Analysis and Recommendations

2002 - Contention Period #07 - 34 HEF
Mid-July - Late September (Weeks 29 - 39)



<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u> (DOY 213 - 270)
DSS	DSS-15 NSP DOWNTIME, WK 31 - 39 ROUTINE MAINTENANCE, 6 - 8 HRS	3
CAS	ROUTINE SUPPORT, DSS-45, 9 HRS	1
CLU2	ARRAY SUPPORT IN WK 32, 36, DSS-16/24/27/15, 1 HR	1
CNTR	LAUNCH SUPPORT	3 - 11
DSN	CAT M&E, DSS-15\45, 15\65, WK 29, 30, 35, 36, 24 HRS CLOCK SYNC, DSS-15\65, WK 30, 32, 34, 36, 38, 4 HRS	1 1
GBRA	HOST COUNTRY, DSS-45, WK 29, 31, 37, 12 HRS	1
GODR	ROUTINE SUPPORT, DSS-14/15, WK 30, 32, 34	1
MGS	MAPPING/BETA SUPPORT, 10 - 12 HRS	9 - 10
SDU	ROUTINE SUPPORT, 6 HRS	1
SGP	CRUSTAL DYN, DSS-45, 65, WK 32 - 34, 36, 39, 24 HRS	1
SRTF	LAUNCH AND ROUTINE SUPPORT, 1 - 8 HRS	7 - 11
ULYS	ROUTINE D/L, DSS-15, WK 30, 34, 36, 38, 39, 4 - 5 HRS	3
VGR1	ROUTINE/NEGOTIATED SUPPORT, DSS-65	4 - 7
VGR2	NEGOTIATED SUPPORT, DSS-45	3 - 4



Resource Allocation Review

Requirements Analysis and Recommendations

2002 - Contention Period #07 - 34HEF
Mid-July - Late September (Weeks 29 - 39) (Continued)



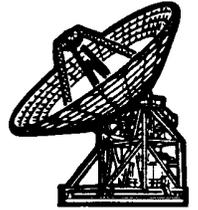
<u>USER</u>	<u>RECOMMENDATION</u>
DSS	REQUESTED DOWNTIME (DELETE DSS-15 MAINT)
CAS	REQUESTED SUPPORT
CLU2	REQUESTED SUPPORT USING DSS-16/24/27
CNTR	REQUESTED SUPPORT REPLACING DSS-15 WITH DSS-25, 26
DSN	MOVE CAT M&E SUPPORT TO WK 47 (DSS-15\65) AND WK 48 (DSS-15\45) AND DELETE CLOCK SYNC VLBI SUPPORT
GBRA	REQUESTED SUPPORT
GODR	MOVE SUPPORT TO WK 48
MGS	REQUESTED SUPPORT USING DSS-45, 65
SDU	REQUESTED SUPPORT USING DSS-45, 65
SGP	REDUCE SUPPORT TO 12 HRS
SRTF	REQUESTED SUPPORT REPLACING DSS-15 WITH DSS-25
ULYS	REQUESTED SUPPORT USING DSS-24
VGR1	DELETE DSS-65 SUPPORT, USE SEVEN PLANNED 8-HR PASSES AT DSS-25 AND 26
VGR2	REQUESTED SUPPORT



Resource Allocation Review

Requirements Analysis and Recommendations

2002 - Contention Period #08 - DSS- 45
October - Late November (Weeks 40 - 47)



<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u> (DOY 274 - 326)
DSS	NSP DOWNTIME	
CNTR	LAUNCH SUPPORT, WK 40 - 42	1 - 2
DSN	CAT M&E, DSS-15\45, WK 41, 42, 47, 24 HRS	0 - 1
GBRA	HOST COUNTRY, WK 42, 43, 47, 12 - 24 HRS	1
MGS	MAPPING/BETA SUPPORT, 10 HRS	3 - 4
SDU	ROUTINE SUPPORT, 6 HRS	0 - 1
SGP	CRUSTAL DYNAMICS, WK 40, 45, 46, 24 HRS	1
SRTF	ROUTINE SUPPORT, 1 HR	2 - 3
VGR2	ROUTINE/NEGOTIATED SUPPORT, 8 - 16 HRS	3 - 7

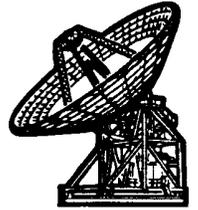


Resource Allocation Review

Requirements Analysis and Recommendations

2002 - Contention Period #08 - DSS- 45

October - Late November (Weeks 40 - 47) (Continued)



<u>USER</u>	<u>RECOMMENDATIONS</u>
DSS	REQUESTED DOWNTIME (DELETE MAINTENANCE)
CNTR	REQUESTED SUPPORT USING DSS-15, 65, 43
DSN	MOVE CAT M&E TO WK 47 (DSS-15/65) AND WK 48 (DSS-15/45)
GBRA	REDUCE TO THREE 12-HR SUPPORTS AND MOVE TO WK 48, 49 AND 50
MGS	REQUESTED SUPPORT USING DSS-15, 65
SDU	REQUESTED SUPPORT USING DSS-15, 65, 43
SGP	DELETE SUPPORT
SRTF	REQUESTED SUPPORT USING DSS-34
VGR2	REDUCE 16-HR PASSES TO 8-HRS AND MOVE ALL SUPPORT TO DSS-34, 43



Resource Allocation Review

Requirements Analysis and Recommendations

2002 - Contention Period #09 - DSS-65

Early December - Early February (Weeks 49 - 06)



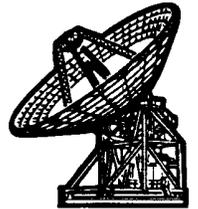
<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u> (DOY 336 - 040)
DSS	NSP DOWNTIME	
CAS	GRAVITY WAVE, WK 51 - 05	3 - 7
DSN	CLOCK SYNC, DSS-15\65, WK 50, 52, 02, 04, 06, 4 HRS	1
	CAT M&E, DSS-15\45, 15\65, WK 05 - 06, 24 HRS	0 - 1
MGS	MAPPING/BETA SUPPORT, 10 - 14 HRS	3 - 4
M010	MAPPING SUPPORT, WK 52, 01 - 06, 7 HRS	3 - 5
ROSE	LAUNCH, WK 05 - 06	2 - 4
SDU	ROUTINE SUPPORT, WK 49 - 50, 01 - 06, 6 HRS	0 - 1
SGP	CRUSTAL DYNAMICS, WK 50, 01, 06, 24 HRS	1
SRTF	ROUTINE SUPPPORT, WK 49 - 52, 1 HR	2 - 3
VGR1	NEGOTIATED SUPPORT, WK 49 - 50	3 - 4



Resource Allocation Review

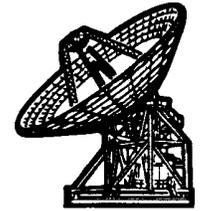
Requirements Analysis and Recommendations

2002 - Contention Period #09 - DSS-65
Early December - Early February (Weeks 49 - 06)

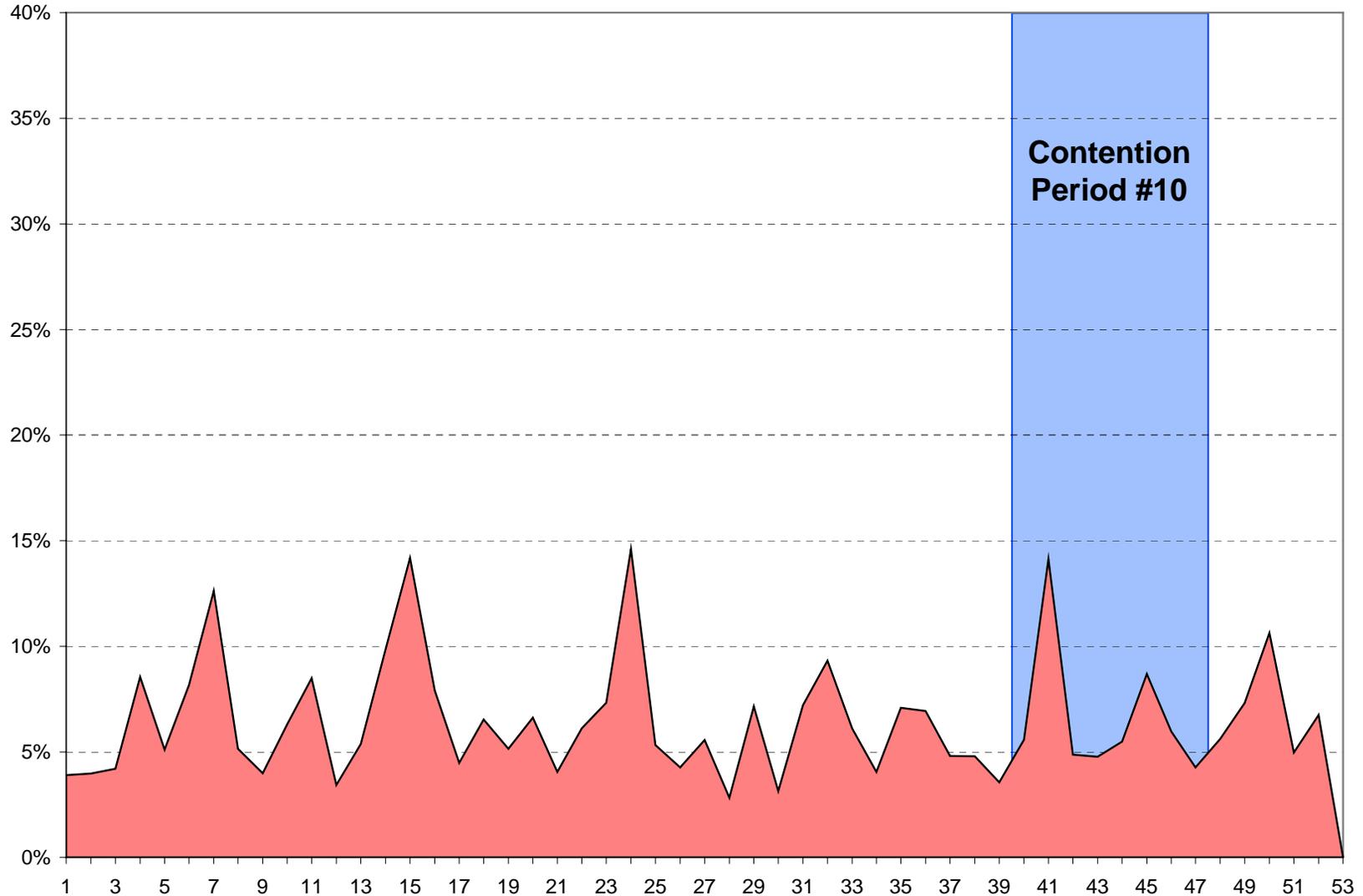


<u>USER</u>	<u>RECOMMENDATION</u>
DSS	REQUESTED DOWNTIME (DELETE ROUTINE SUPPORT)
CAS	REQUESTED SUPPORT USING SEVEN 6-HR SUPPORTS AT DSS-54
DSN	DELETE SUPPORT
MGS	REDUCE TO 7-HRS AND MSPA WITH M010 AT DSS-25, 34, 63
M010	REQUESTED SUPPORT USING DSS-25, 34, 63
ROSE	REQUESTED SUPPORT USING DSS-54
SDU	REQUESTED SUPPORT USING DSS-15, 45
SGP	DELETE SUPPORT
SRTF	REQUESTED SUPPORT USING DSS-15, 45
VGR1	REDUCE SUPPORT TO 4 HRS USING DSS-15

Resource Allocation Review Requirements Analysis and Recommendations



2002 Weekly Contention Percent - 34BWG1





Resource Allocation Review

Requirements Analysis and Recommendations

2002 - Contention Period #10 - 34BWG1
October - Late November (Weeks 40 - 47)



<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u> (DOY 274 - 326)
DSS	DSS-24 AND 54 NSP DOWNTIME	
ACE	ROUTINE SUPPORT, DSS-24, 3.5 HRS	1 - 4
CHDR	ROUTINE SUPPORT, 1 HR	21
CLU2	ARRAY, DSS-16/24/27/15, WK 40 AND 44, 1 HR	1
GNS	MANEUVER IN WK 41/ROUTINE SUPPORT, 4 - 8 HRS	3 - 11
INTG	ROUTINE SUPPORT, DSS-24, WK 41, 45, 5.3 HRS	1
NOZO	ROUTINE SUPPORT, DSS-24, 54	1 - 3
SOHO	TSO SUPPORT, DSS-24, WK 45	2
SRTF	ROUTINE SUPPORT, DSS-34, 54, 1 HR	4 - 5
ULYS	ROUTINE SUPPORT, DSS-24, 54, 5 - 8 HRS	8 - 11
VGR1	ROUTINE/NEGOTIATED SUPPORT, DSS-54, 4 - 8 HRS	3 - 4
WIND	ROUTINE SUPPORT, 2.5 HRS	7

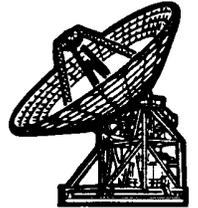


Resource Allocation Review

Requirements Analysis and Recommendations

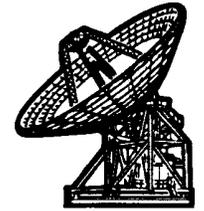
2002 - Contention Period #10 - 34BWG1

October - Late November (Weeks 40 - 47) (Continued)

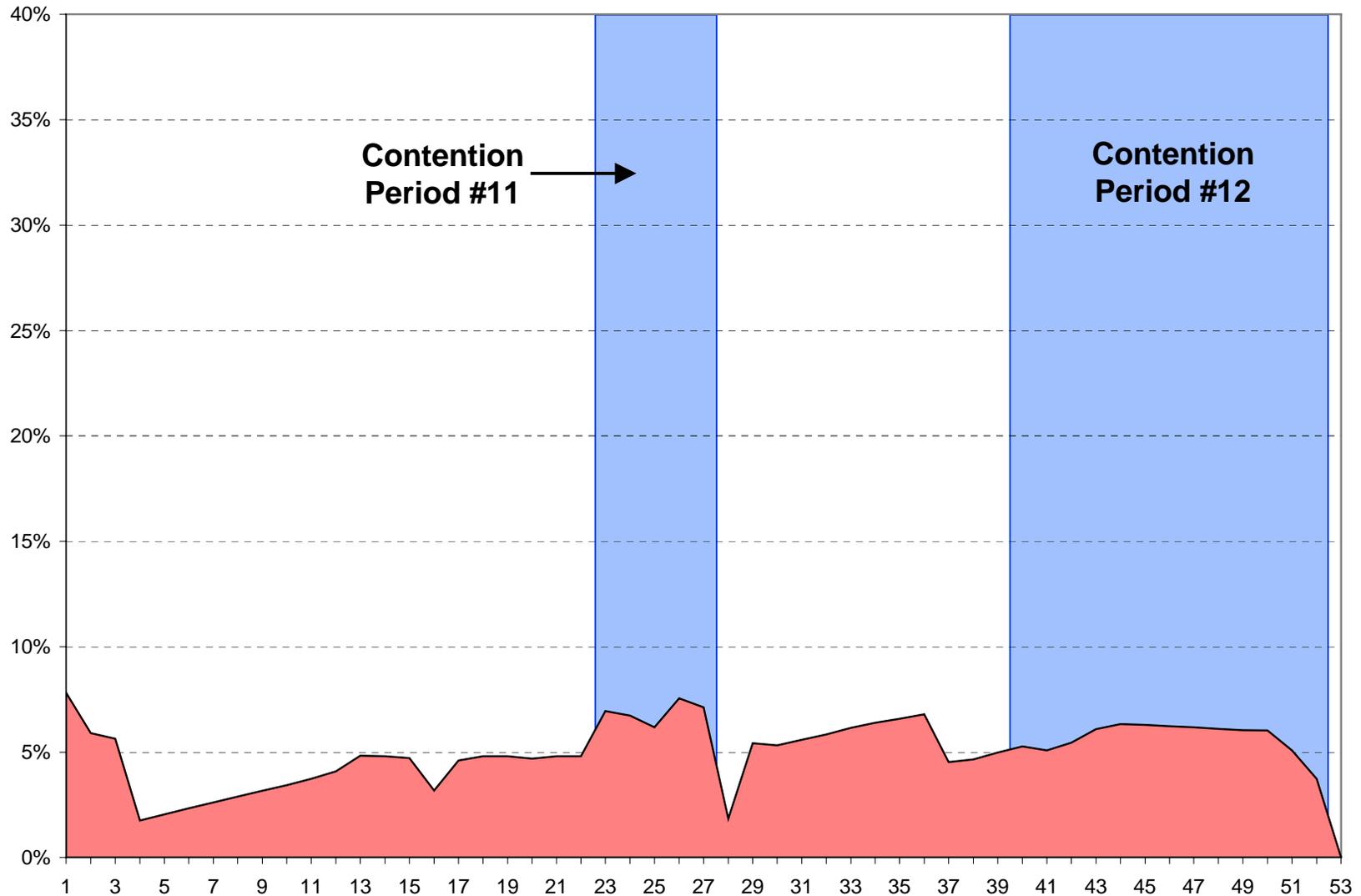


<u>USER</u>	<u>RECOMMENDATIONS</u>
DSS	REQUESTED DOWNTIME (DELETE ROUTINE SUPPORT, DSS-24, 54)
ACE	MOVE SUPPORT TO DSS-16, 66
CHDR	REQUESTED SUPPORT USING DSS-34, 27, 16 AND 66
CLU2	REQUESTED SUPPORT USING DSS-16/27/15
GNS	REQUESTED ROUTINE SUPPORT USING DSS-34 AND MOVE MANEUVER TO WK 39
INTG	REQUESTED SUPPORT USING DSS-16
NOZO	REDUCE TO 6 HRS AND MOVE TO DSS-14, 63
SOHO	MOVE TSO TO WK 52 AND SPLIT SUPPORT USING TWO 4-HR PASSES AT DSS-16 AND TWO AT DSS-27
SRTF	REQUESTED SUPPORT USING 34H, DSS-25, 34
ULYS	DELETE SUPPORT AND USE SEVEN 4-HR PASSES ON 70M AND SEVEN 6-HR D/L PASSES AT DSS-15, 65
VGR1	REDUCE SUPPORT TO 4 HRS USING DSS-25, 65
WIND	REQUESTED SUPPORT USING DSS-34

Resource Allocation Review Requirements Analysis and Recommendations



2002 Weekly Contention Percent - 34BWG2

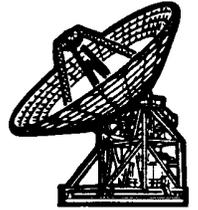




Resource Allocation Review

Requirements Analysis and Recommendations

2002 - Contention Period #11 - DSS-25
Early June - Early July (Weeks 23 - 27)



<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u>
CAS	CONJUNCTION SUPPORT	7
DSS	MAINTENANCE	1

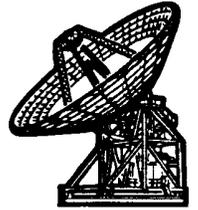
<u>USER</u>	<u>RECOMMENDATION</u>
CAS	REDUCE ONE PASS PER WEEK BY 4 HOURS (DSS)
DSS	REDUCE TO 6 HOURS (CAS)



Resource Allocation Review

Requirements Analysis and Recommendations

2002 - Contention Period #12 - DSS-26
October - March (Weeks 40 - 13)

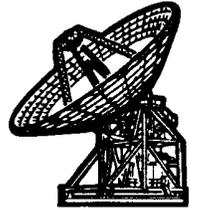


<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u>
DSS	NSP TEST AND TRAINING	(DOY 274 - 089)
VGR1	ROUTINE SUPPORT	3 - 7

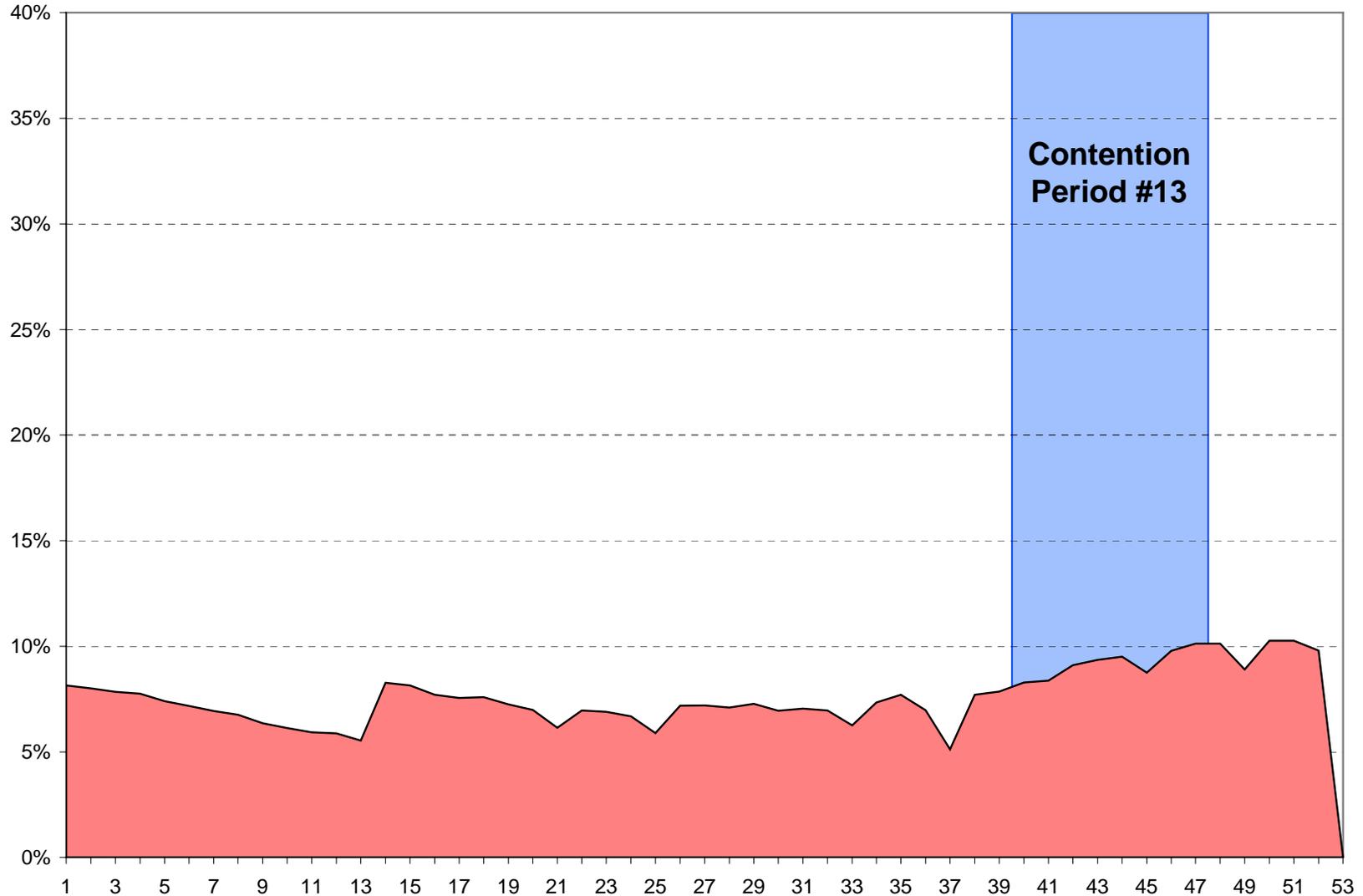
<u>USER</u>	<u>RECOMMENDATION</u>
DSS	REQUESTED NSP TEST AND TRAINING (DELETE MAINTENANCE)
VGR1	DELETE SUPPORT IN WK 40 - 06 REDUCE SUPPORT TO 4 HRS USING DSS-24 IN WK 07 - 13



Resource Allocation Review Requirements Analysis and Recommendations



2002 Weekly Contention Percent - 34HSB



02/06/01

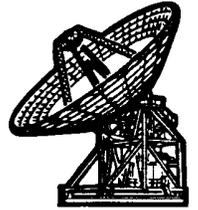
WPH - 2.1 - 45



Resource Allocation Review

Requirements Analysis and Recommendations

2002 - Contention Period #13 - DSS-27
October - Late November (Weeks 40 - 47)



<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u>
ACE	ROUTINE SUPPORT, 3.5 HRS	3 - 4
DSS	MAINTENANCE	1
SOHO	TSO IN WK 41/ROUTINE, 4 HRS	2 - 4

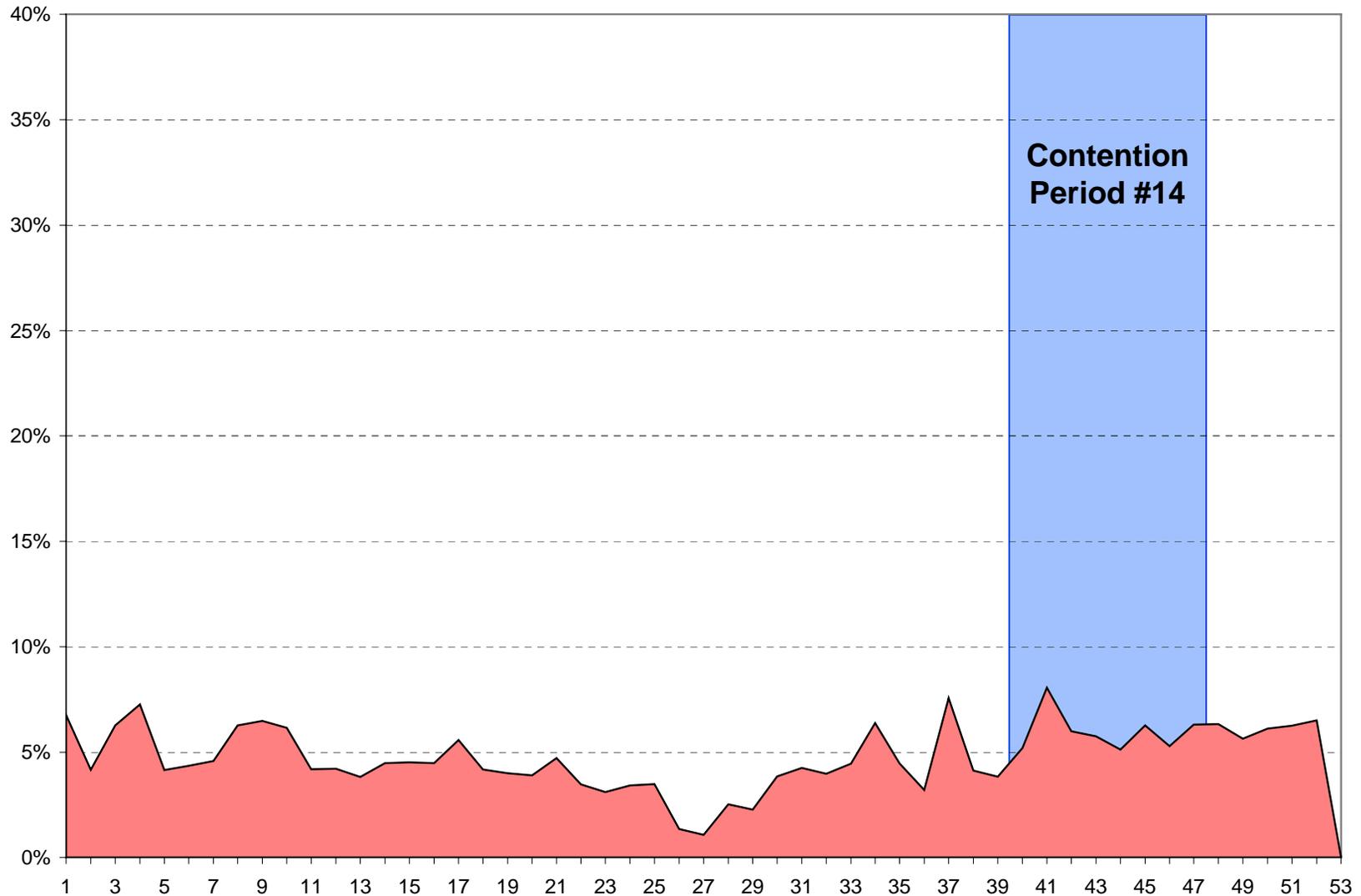
<u>USER</u>	<u>RECOMMENDATION</u>
ACE	REQUESTED SUPPORT
DSS	REDUCE SUPPORT TO 6 HRS (ACE, SOHO)
SOHO	MOVE TSO TO WK 39 (ACE)

Note: Contention written to accommodate users moving to DSS-27 as a result of proposed NSP DSS-24, 45, and 54 downtime and the TDRS launch planned in WK 40 - 43

Resource Allocation Review Requirements Analysis and Recommendations



2002 Weekly Contention Percent - 26M





Resource Allocation Review

Requirements Analysis and Recommendations

2002 - Contention Period #14 - 26M

October - Late November (Weeks 40 - 47)



<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u>
ACE	ROUTINE SUPPORT, WK 47, 3.5 HRS	2
DSS	MAINTENANCE, 4 - 8 HRS	3
INTG	ROUTINE SUPPORT, DSS-16, 5.3 HRS	6 - 7
SOHO	TSO IN WK 41, 45/ROUTINE SUPPORT, 1 - 8 HRS	21 - 28
TDRS	LAUNCH, WK 40 - 43, 1.5 - 8 HRS	4 - 28

<u>USER</u>	<u>RECOMMENDATIONS</u>
ACE	REQUESTED SUPPORT USING DSS-16, 66
DSS	CHANGE SUPPORT TO 6 HRS/ANTENNA/WK
INTG	REQUESTED SUPPORT
SOHO	MOVE TSO SUPPORT TO WK 39 AND 52 (ACE, INTG, TDRS)
TDRS	REQUESTED SUPPORT

Note: Contention written to accommodate users moving to the 26M as a result of proposed NSP DSS-24, 45, 54 downtime and the TDRS launch planned in WK 40 - 43.



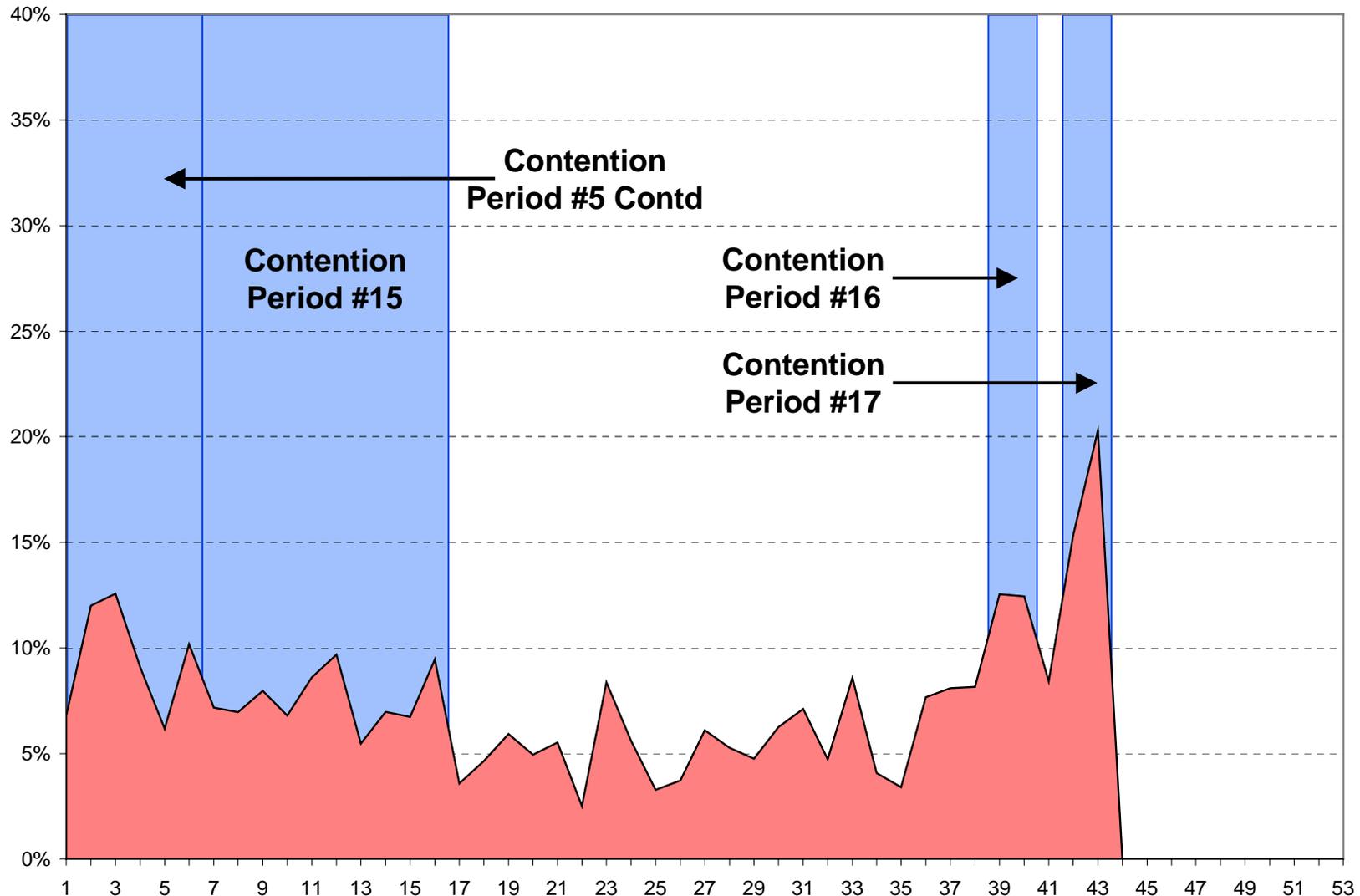
Resource Allocation Review Requirements Analysis and Recommendations

2003 Activities in Contention / Recommendations

Resource Allocation Review Requirements Analysis and Recommendations



2003 Weekly Contention Percent - 70M





Resource Allocation Review

Requirements Analysis and Recommendations

2003 - Contention Period #15 - DSS-63
Mid-February - Mid-April (Weeks 07 - 16)



<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u> (DOY 041 - 110)
DSS	NSP/70M SERVO DRIVE UPGRADE DOWNTIME	
DSN	ANTENNA CALIBRATION, WK 07, 09 - 11, 14 - 16	0 - 1
EVN	ROUTINE SUPPORT, DSS-14\63, WK 16, 16 HRS	1
	CALIBRATION SUPPORT, WK 11, 3 HRS	1
GBRA	HOST COUNTRY, WK 15, 24 HRS	1
	M-WAVE SPECT, 9 HRS	1
	RA500 WCB, DSS-14\63, WK 14, 24 HRS	1
	RADIO STARS, DSS-14\63, WK 07, 13, 14 HRS	1
	VLBA WCB, DSS-14\63, WK 10, 14	1
MAP	MANEUVER IN WK 14/ROUTINE, 45 MIN - 8 HRS	2 - 3
SVLB	ROUTINE SUPPORT, WK 07 - 08, 10 - 12, 14 - 16	0 - 1

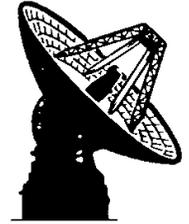


Resource Allocation Review

Requirements Analysis and Recommendations

2003 - Contention Period #15 - DSS-63

Mid-February - Mid-April (Weeks 07 - 16) (Continued)



<u>USER</u>	<u>RECOMMENDATION</u>
DSS	REQUESTED DOWNTIME (DELETE MAINTENANCE) REDUCE DSS-14 TO ONE 8-HR ROUTINE SUPPORT/WK
DSN	REQUESTED SUPPORT USING DSS-14, 43
EVN	MOVE ROUTINE SUPPORT TO WK 17 AND DELETE CALIBRATION
GBRA	MOVE HOST COUNTRY TO WK 17, DELETE M-WAVE SPECT, MOVE RA500 WCB TO WK 05, DELETE VLBA WCB, AND MOVE RADIO STARS WCB TO WK 06 AND 18
MAP	MOVE MANEUVER TO WK 17 AND USE DSS-14, 43 FOR ROUTINE SUPPORT
SVLB	REQUESTED SUPPORT USING DSS-14, 43

Resource Allocation Review

Requirements Analysis and Recommendations

2003 - Contention Period #16 - 70M

Late September - Early October (Weeks 39 - 40)



<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u>
GBRA	PLANET R/AST, DSS-14/M-WAVE SPECT, 9 HRS	4
	RA500 WCB, DSS-14\63, WK 40, 24 HRS	1
	RADIO STARS WCB, DSS-14\63, WK 39, 14 HRS	1
	VLBA WCB, DSS-14\63, WK 40	1
GSSR	ASTEROID 1999CU3, DSS-14, WK 39, 12 HRS	3
M010	MAPPING SUPPORT, 7 HRS	14
MAP	MANEUVER IN WK 40/ROUTINE, 45 MIN - 8 HRS	7 - 9
MERA	MINCRUISE, DSS-43	1
MERB	MINCRUISE, DSS-43	1

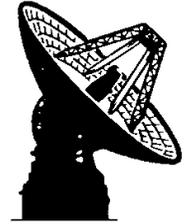
<u>USER</u>	<u>RECOMMENDATION</u>
GBRA	MOVE RA500 WCB TO WK 36 (M010)
	MOVE RADIO STARS WCB TO WK 37 (M010)
GSSR	REQUESTED SUPPORT
M010	REQUESTED SUPPORT USING DSS-43, 63 (GBRA, GSSR)
MAP	MOVE MANEUVER SUPPORT TO WK 38 (M010)
MERA	REQUESTED SUPPORT USING DSS-15, 65 (M010)
MERB	REQUESTED SUPPORT USING DSS-15, 65 (M010)



Resource Allocation Review

Requirements Analysis and Recommendations

2003 - Contention Period #17 - 70M
Mid-October - Late October (Weeks 42 - 43)



<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u>
DSS	BEARING/ROUTINE MAINTENANCE, 6 - 10.5 HRS	5 - 6
	BEARING REGROUT, DSS-63, WK 43, 72 HRS	1
GBRA	HOST COUNTRY, DSS-43, WK 42, 24 HRS	1
	PLANET R/AST, DSS-14, M-WAVE SPECT, 9 HRS	4
GODR	ROUTINE SUPPORT, DSS-14/15, WK 42	1
GPB	ROUTINE SUPPORT, DSS-14\43\63, WK 43, 6.5 - 12 HRS	1
M01O	MAPPING SUPPORT, 7 HRS	14
MAP	ROUTINE SUPPORT, 45 MIN	7
MERA	BUSYCRUISE IN WK 42/CHECKOUT, DSS-43	2 - 4
MERB	MINCRUISE, DSS-43	1
NOZO	ROUTINE SUPPORT, DSS-43	0 - 1
SVLB	ROUTINE/RADA SUPPORT	9
VGR1	ROUTINE UPLINK, 2.5 HRS	1
VGR2	NEGOTIATED/ROUTINE UPLINK, DSS-43, 2.5 - 8 HRS	1 - 4



Resource Allocation Review

Requirements Analysis and Recommendations

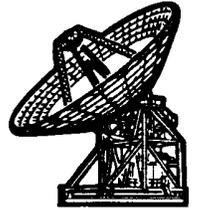
2003 - Contention Period #17 - 70M

Mid-October - Late October (Weeks 42 - 43) (Continued)

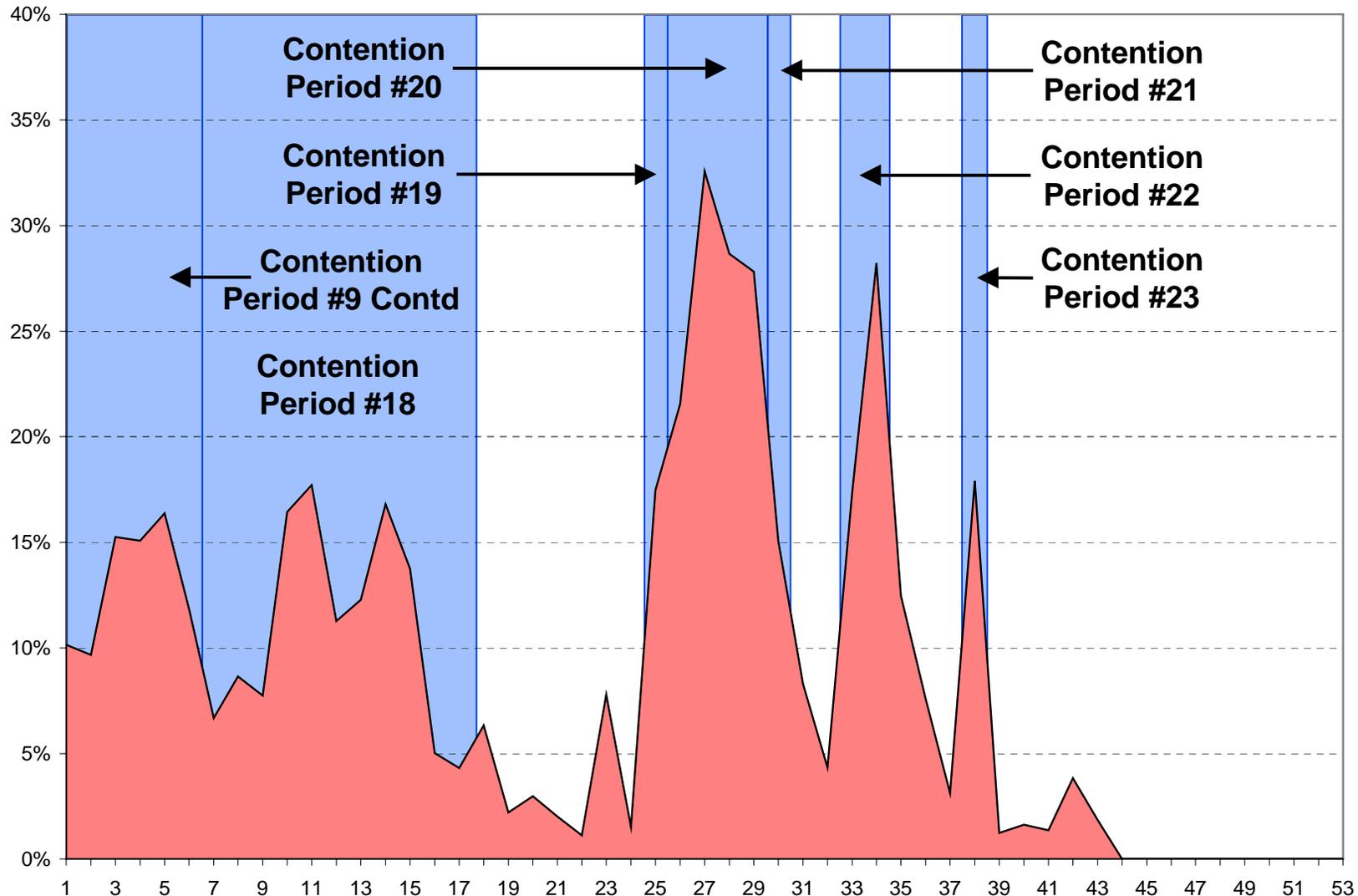


<u>USER</u>	<u>RECOMMENDATION</u>
DSS	MOVE DSS-63 BEARING REGROUT TO WK 35 (M010)
GBRA	MOVE HOST COUNTRY TO WK 35 (MERA) M-WAVE SPECT REDUCE TO 4 HRS (DSS, M010) PLANET R/AST REDUCE TO 4 HRS (DSS, M010)
GODR	DELETE SUPPORT (DSS)
GPB	MOVE TO WK 37 (M010)
M010	REQUESTED SUPPORT USING DSS-14, 63 (MERA)
MAP	REQUESTED SUPPORT
MERA	REQUESTED SUPPORT
MERB	REQUESTED SUPPORT
NOZO	REQUESTED SUPPORT
SVLB	REDUCE RADA SUPPORT TO 6 PASSES (DSS, M010)
VGR1	REQUESTED SUPPORT
VGR2	REQUESTED U/L AT DSS-43 AND NEGOTIATED SUPPORT USING DSS- 34 (MERA)

Resource Allocation Review Requirements Analysis and Recommendations



2003 Weekly Contention Percent - 34HEF

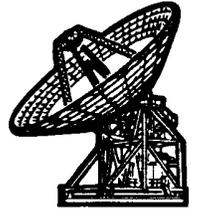




Resource Allocation Review

Requirements Analysis and Recommendations

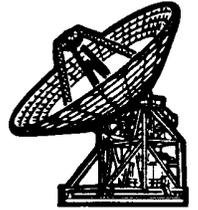
2003 - Contention Period #18 - 34HEF
Mid-February - Mid-April (Weeks 07 - 16)



<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u>
CAS	ROUTINE/TCM, DSS-45, 9 HRS	1 - 2
DSN	CAT M&E, DSS-15\45, 15\65, WK 08 - 09, 24 HRS	1
DSS	MAINTENANCE, 6 - 8 HRS	3
GBRA	HOST COUNTRY, DSS-45, WK 07 AND 13, 12 HRS	1
M01O	MAPPING SUPPORT, DSS-45, 65, 7 HRS	4 - 5
MGS	MAPPING/BETA SUPPORT, 12 HRS	9 - 10
ROSE	ROUTINE SUPPORT, DSS-65	3 - 4
SDU	ROUTINE SUPPORT	1
SGP	CRUSTAL DYN, DSS-45, 65, WK 09 - 11, 14 - 16, 24 HRS	1



**Resource Allocation Review
Requirements Analysis and Recommendations
2003 - Contention Period #18 - 34HEF
Mid-February - Mid-April (Weeks 07 - 16) (Continued)**



<u>USER</u>	<u>RECOMMENDATION</u>
CAS	REQUESTED SUPPORT
DSN	DELETE SUPPORT (CAS, M01O, ROSE)
DSS	REQUESTED SUPPORT
GBRA	REDUCE SUPPORT TO 8 HRS (CAS, M01O, ROSE)
M01O	REQUESTED SUPPORT
MGS	REDUCE TO 8 HRS/SUPPORT AND MOVE TO DSS-14, 43 (M01O)
ROSE	REQUESTED SUPPORT
SDU	REQUESTED SUPPORT
SGP	REQUESTED SUPPORT USING 12-HR INCREMENTS (CAS, M01O, ROSE)

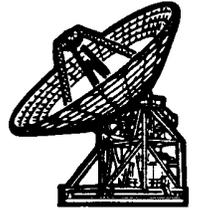


Resource Allocation Review

Requirements Analysis and Recommendations

2003 - Contention Period #19 - 34HEF

Mid-June (Week 25)



<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u>
CAS	CONJUNCTION, DSS-45, 65	14
DSS	NEGOTATED MAINTENANCE, 4 HRS	3
GBRA	HOST COUNTRY, DSS-45, 12 HRS	1
MERA	CHECKOUT	21
	VLBI, DSS-15\45, 15\65, 1 HR	1
SDU	TCM, 4 HRS	14

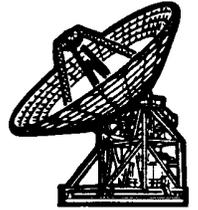
<u>USER</u>	<u>RECOMMENDATION</u>
CAS	REDUCE DSS-65 SUPPORT TO 5HRS/PASS AND GAP FILL USING DSS-54 (MERA, DSS)
DSS	REQUESTED SUPPORT
GBRA	REQUESTED SUPPORT USING DSS-43 (MERA)
MERA	REQUESTED SUPPORT
SDU	REQUESTED SUPPORT USING 70M (CAS, DSS, MERA)



Resource Allocation Review

Requirements Analysis and Recommendations

2003 - Contention Period #20 - 34HEF
Late June - Mid-July (Weeks 26 - 29)



<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u>
CAS	CONJUNCTION, DSS-45, 65	4 - 14
GBRA	HOST COUNTRY, DSS-45, WK 29, 12 HRS	1
MERA	CHECKOUT/BUSYCRUISE VLBI, DSS-15\45, 15\65, 1 HR	14 - 18 1 - 5
MERB	LAUNCH/TCM/CHECKOUT VLBI, DSS-15\45, 15\65, WK 28 AND 29, 1 HR	9 - 21 1
SDU	TCM, 4 - 8 HRS	14

<u>USER</u>	<u>RECOMMENDATION</u>
CAS	REDUCE DSS-65 SUPPORT TO 5 HRS/PASS AND GAP FILL USING DSS-54 (DSS, MERB)
GBRA	REDUCE SUPPORT TO 8 HRS
MERA	REQUESTED SUPPORT USING 70M (MERB)
MERB	REQUESTED SUPPORT
SDU	REQUESTED SUPPORT USING DSS-26, 34, 54 (CAS, MERB)



Resource Allocation Review

Requirements Analysis and Recommendations

2003 - Contention Period #21 - 34HEF
Late July (Week 30)



<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u>
DSN	CAT M&E, DSS-15\45, 15\65, 24 HRS	1
MERA	BUSYCRUISE	7
	VLBI, DSS-15\45, 15\65, 1 HR	1
MERB	CHECKOUT	14
	VLBI, DSS-15\45, 15\65, 1 HR	1
SDU	TCM, 4 HRS	6
VGR1	NEGOTIATED SUPPORT	3 - 4
VGR2	NEGOTIATED SUPPORT	3 - 4

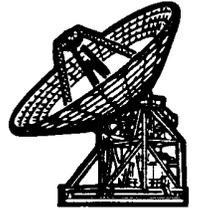
<u>USER</u>	<u>RECOMMENDATION</u>
DSN	MOVE CAT M&E TO WK 32 (MERA, MERB)
MERA	REQUESTED SUPPORT
MERB	REQUESTED SUPPORT
SDU	REQUESTED SUPPORT USING 70M (MERA, MERB)
VGR1	REQUESTED SUPPORT USING DSS-26 (MERA, MERB)
VGR2	REQUESTED SUPPORT USING DSS-43 (MERA, MERB)



Resource Allocation Review

Requirements Analysis and Recommendations

2003 - Contention Period #22 - 34HEF
Mid-August (Weeks 33 - 34)



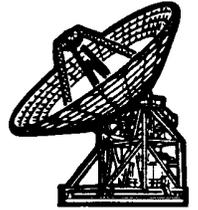
<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u>
CAS	ROUTINE SUPPORT, DSS-45, 9 HRS	1
CNTR	EARTH GRAVITY ASSIST	7
DSN	CLOCK SYNC, DSS-15\65, WK 34, 4 HRS	1
DSS	MAINTENANCE, 6 - 8 HRS	3
M01O	MAPPING, DSS-65, 7 HRS	3 - 4
MERA	BUSYCRUISE, WK 33/EDL TEST, WK 34	7 - 14
	VLBI, DSS-15\45, 15\65, 1 HR	1 - 5
MERB	BUSYCRUISE, WK 33/EDL TEST, WK 34	7 - 14
	VLBI, DSS-15\45, 15\65, 1 HR	1 - 5
SDU	ROUTINE SUPPORT, 6 HRS	1
SGP	CRUSTAL DYNAMICS, DSS-45, 24 HRS	1
SRTF	ROUTINE SUPPORT, 1 HR	3 - 4
VGR1	ROUTINE SUPPORT, DSS-15, 4 HRS	7



Resource Allocation Review

Requirements Analysis and Recommendations

2003 - Contention Period #22 - 34HEF
Mid-August (Weeks 33 - 34) (Continued)



<u>USER</u>	<u>RECOMMENDATION</u>
CAS	REQUESTED SUPPORT
CNTR	REQUESTED SUPPORT
DSN	REQUESTED SUPPORT
DSS	REQUESTED SUPPORT
M01O	REQUESTED SUPPORT USING DSS-25,34,54 (MERB)
MERA	REQUESTED EDL TEST SUPPORT IN WK 34 USING 70M (MERB)
MERB	REQUESTED SUPPORT
SDU	REQUESTED SUPPORT
SGP	REDUCE SUPPORT TO 12 HRS
SRTF	REQUESTED SUPPORT
VGR1	DELETE SUPPORT, USE PLANNED SUPPORT AT DSS-26 (MERB)



Resource Allocation Review

Requirements Analysis and Recommendations

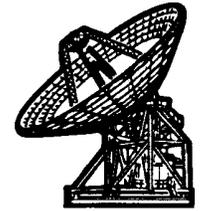
2003 - Contention Period #23 - DSS-15, 65
Mid-September (Week 38)



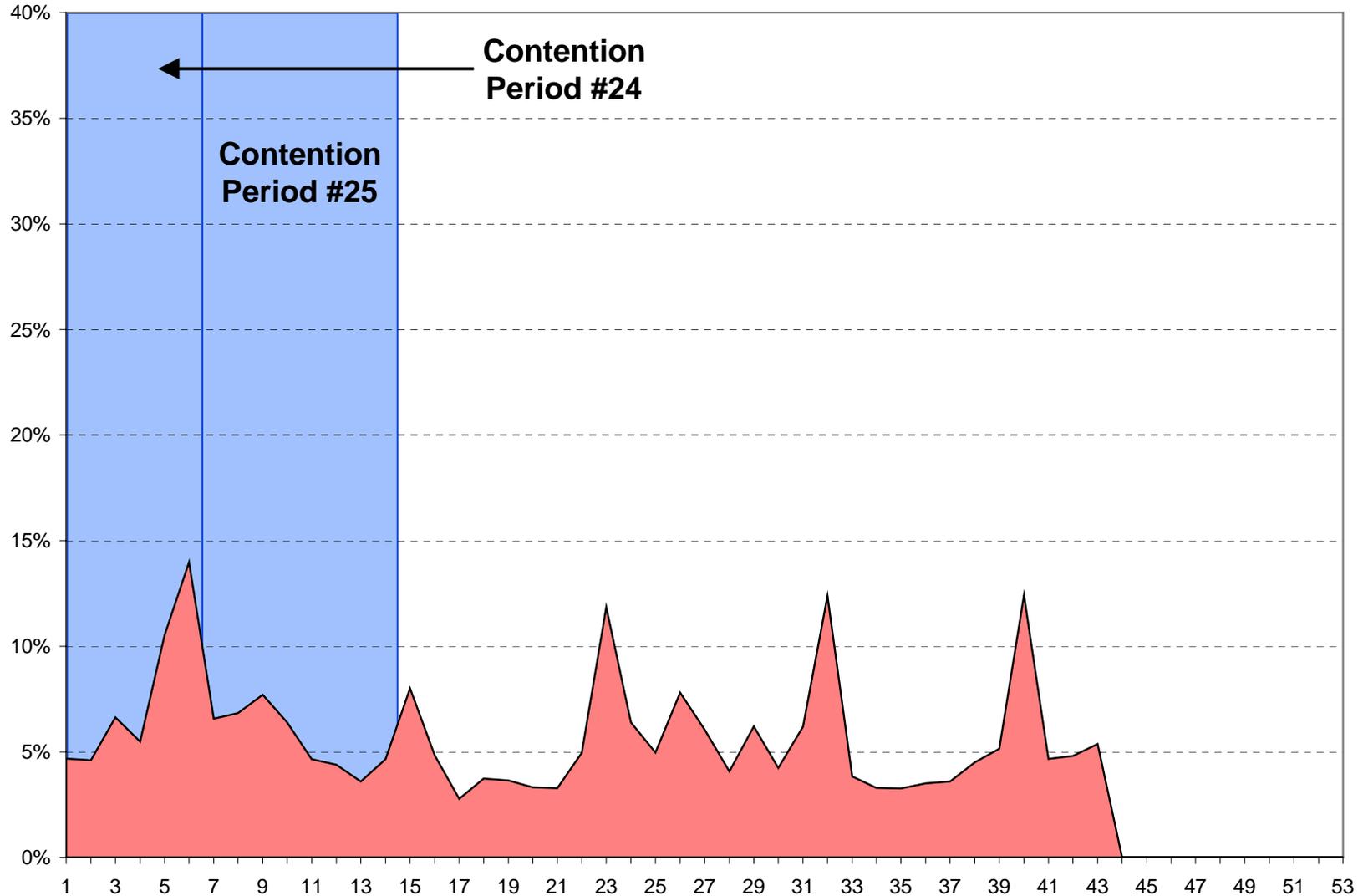
<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u>
CNTR	ENCKE PRE-ENCOUNTER	2
MERA	MINCRUISE	2
	VLBI, DSS-15\65, 1 HR	1
MERB	EDL TEST	14
	VLBI, DSS-15\65, 1 HR	5
SDU	ROUTINE SUPPORT, 6 HRS	1
SRTF	ROUTINE SUPPORT, 1 HR	7

<u>USER</u>	<u>RECOMMENDATION</u>
CNTR	REQUESTED SUPPORT
MERA	MOVE SUPPORT TO 70M (MERB)
MERB	REQUESTED SUPPORT
SDU	REQUESTED SUPPORT
SRTF	REQUESTED SUPPORT USING DSS-25, 34, 54 (CNTR, MERA, MERB)

Resource Allocation Review Requirements Analysis and Recommendations



2003 Weekly Contention Percent - 34BWG1

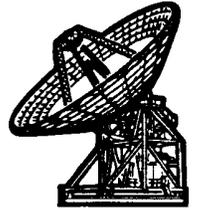




Resource Allocation Review

Requirements Analysis and Recommendations

2003 - Contention Period #24 - 34BWG1
January - Early February (Weeks 01 - 06)



<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u>
DSS	MAINTENANCE, 6 - 8 HRS	3
GNS	ROUTINE/MANEUVER, 4 - 8 HRS	3 - 11
M010	MAPPING, DSS-34, 54, WK 1, 2 AND 6, 7 HRS	7
NOZO	ROUTINE, DSS-24, 54	1 - 7
ROSE	LAUNCH SUPPORT, DSS-54, WK 2 - 6	1 - 7
SRTF	ROUTINE, DSS-34, 54, 1 HR	8 - 10
ULYS	DATATION, WK 05/ROUTINE, DSS-24, 54, 10 - 12 HRS	7
VGR2	ROUTINE SUPPORT, DSS-34	3 - 4
WIND	ROUTINE, 2.5 HRS	7

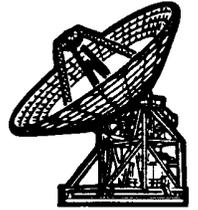


Resource Allocation Review

Requirements Analysis and Recommendations

2003 - Contention Period #24 - 34BWG1

January - Early February (Weeks 01 - 06) (Continued)



<u>USER</u>	<u>RECOMMENDATIONS</u>
DSS	REQUESTED SUPPORT USING 2 HRS OFF-SHIFT MAINTENANCE (GNS, ROSE, ULYS, WIND)
GNS	REQUESTED SUPPORT
M010	REQUESTED SUPPORT USING DSS-25, 34, 63
NOZO	REQUESTED SUPPORT
ROSE	REQUESTED SUPPORT
SRTF	REQUESTED SUPPORT
ULYS	REQUESTED DATATION SUPPORT
	SPLIT ROUTINE PASSES USING DAILY 5-HR SUPPORTS AT DSS-24 AND DSS-15, D/L ONLY (DSS, GNS, ROSE, WIND)
VGR2	REDUCE SUPPORT TO 4 HRS USING DSS-45 (DSS, GNS, M010)
WIND	REQUESTED SUPPORT USING DSS-24, 34 (ROSE)



Resource Allocation Review

Requirements Analysis and Recommendations

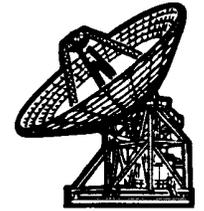
2003 - Contention Period #25 - DSS-34
Mid-February - Early April (Weeks 07 - 14)



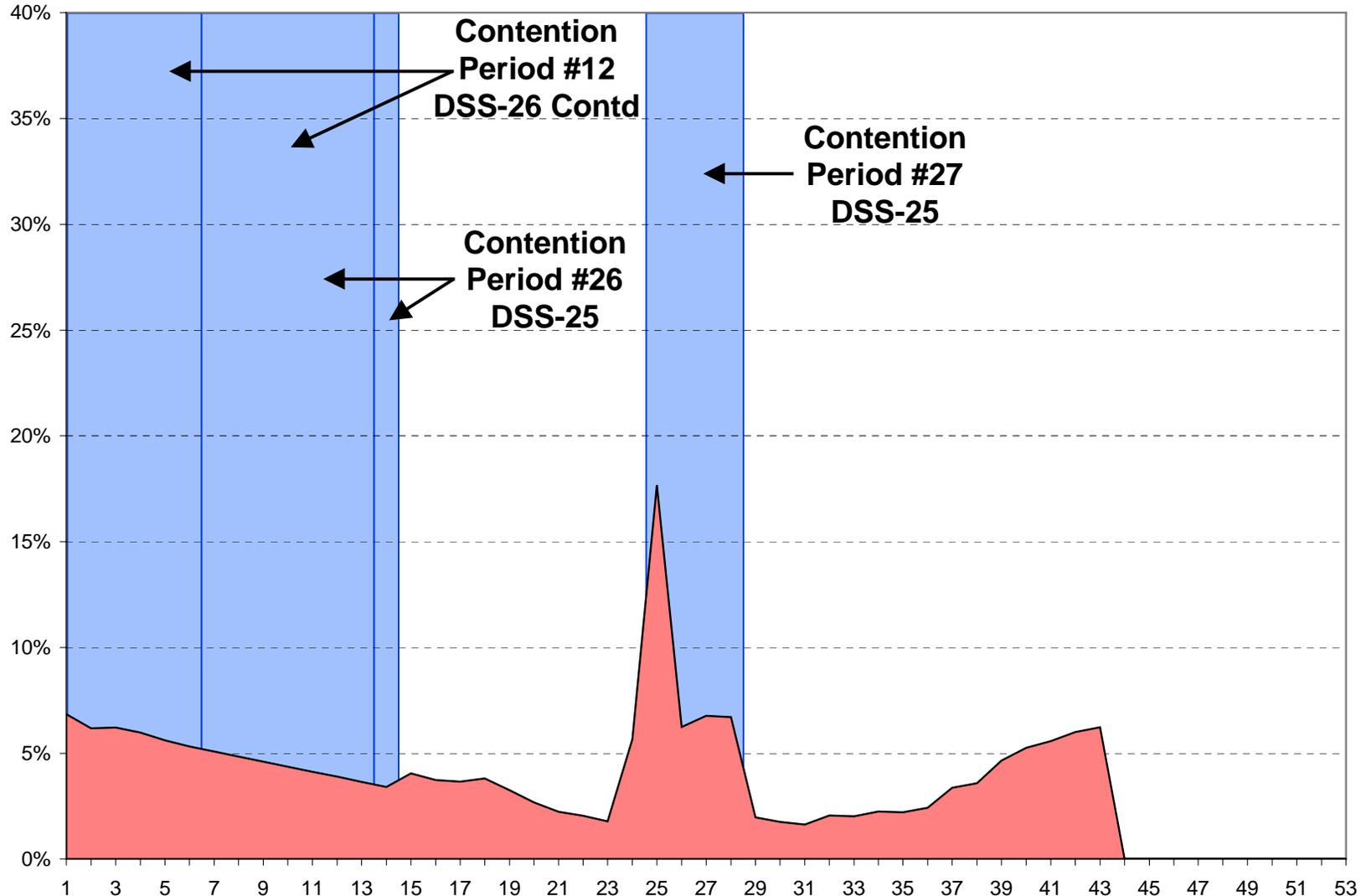
<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u> (DOY 041 - 096)
DSS	NSP DOWNTIME	
CHDR	ROUTINE SUPPORT, 1 HR	7
GNS	ROUTINE SUPPORT, 4 - 8 HRS	1 - 4
NOZO	ROUTINE SUPPORT	0 - 1
M01O	MAPPING SUPPORT, 7 HRS	2 - 3
SRTF	ROUTINE SUPPORT, 1 HR	3 - 5
WIND	ROUTINE SUPPORT, 2.5 HRS	2 - 3

<u>USER</u>	<u>RECOMMENDATIONS</u>
DSS	REQUESTED DOWNTIME (DELETE MAINTENANCE)
CHDR	REQUESTED SUPPORT USING 2 HRS/PASS AT DSS-46
GNS	REQUESTED SUPPORT USING DSS-24, 54
NOZO	REQUESTED SUPPORT USING DSS-43
M01O	REQUESTED SUPPORT USING DSS-43, 45
SRTF	REQUESTED SUPPORT USING DSS-43, 45
WIND	REQUESTED SUPPORT USING DSS-24, 54

Resource Allocation Review Requirements Analysis and Recommendations



2003 Weekly Contention Percent - 34BWG2

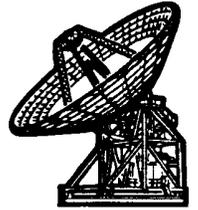




Resource Allocation Review

Requirements Analysis and Recommendations

2003 - Contention Period #26 - DSS-25
Mid-February - Early April (Weeks 07 - 14)



<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u> (DOY 041 - 096)
DSS	NSP DOWNTIME	
CAS	ROUTINE SUPPORT	1
M010	MAPPING SUPPORT, 7 HRS	4 - 5
SRTF	ROUTINE SUPPORT, 1 HR	4 - 5

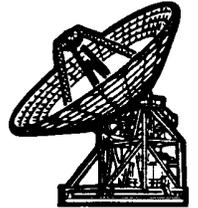
<u>USER</u>	<u>RECOMMENDATIONS</u>
DSS	REQUESTED DOWNTIME (DELETE MAINTENANCE)
CAS	REQUESTED SUPPORT USING DSS-14, 15
M010	REQUESTED SUPPORT USING DSS-14, 15
SRTF	REQUESTED SUPPORT USING DSS-14, 15



Resource Allocation Review

Requirements Analysis and Recommendations

2003 - Contention Period #27 - DSS-25
Mid-June - Early July (Weeks 25 - 28)



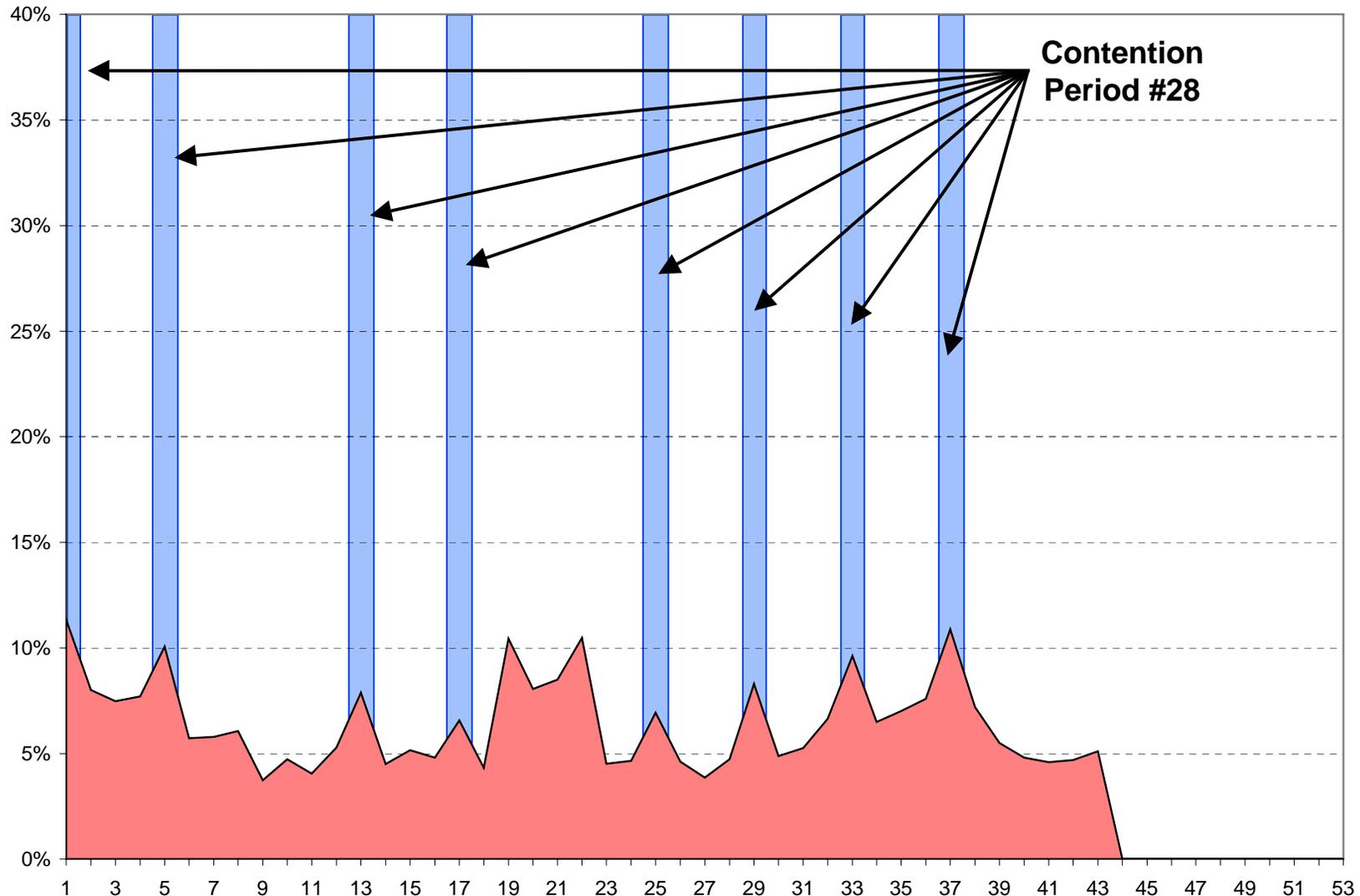
<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u>
CAS	CONJUNCTION SUPPORT	7
DSS	MAINTENANCE	1

<u>USER</u>	<u>RECOMMENDATIONS</u>
CAS	REDUCE ONE PASS PER WEEK TO 4 HRS (DSS)
DSS	REDUCE SUPPORT TO 6 HRS (CAS)

Resource Allocation Review Requirements Analysis and Recommendations



2003 Weekly Contention Percent - 26M





Resource Allocation Review

Requirements Analysis and Recommendations

2003 - Contention Period #28 - 26M

January - September (Weeks 1, 5, 13, 17, 25, 29, 33, 37)



<u>USER</u>	<u>CONTENTION</u>	<u>PASSES/WK</u>
DSS	MAINTENANCE, 4 - 8 HRS	3
INTG	ROUTINE SUPPORT, DSS-16, 7 HRS	7
SOHO	TSO, WK 1, 5 AND ROUTINE SUPPORT, 1 - 8 HRS	21 - 23

<u>USER</u>	<u>RECOMMENDATIONS</u>
DSS	REDUCE DSS-16, 66 SUPPORT TO 4 HRS IN WK 09, 13 AND 17 (INTG, SOHO)
INTG	MOVE 3 PASSES/WK TO DSS-24 IN WK 09, 13, 17, 25, 29, 33 AND 37 (DSS, SOHO)
SOHO	DELETE WK 01 TSO AND MOVE WK 05 TSO TO WK 09 SPLIT FIVE TSO PASSES, USING 4 HRS/DAY AT DSS-14 AND 4 HRS AT DSS-16 IN WK 09, 13 AND 17 SPLIT 2 ROUTINE PASSES/WK, USING 4 HRS/DAY AT THE 26M AND 4 HRS AT DSS-27 IN WK 9, 13, 17, 25, 29, 33 AND 37 (DSS, INTG)



Resource Allocation Review

Supporting Material

May be found on the RAPSO WWW Homepage at:

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

- ◆ **Ongoing Users Negotiated Requirements**
Individual User Loading Profiles

- ◆ **Resource Allocation Review Board Information**
Supplemental Yearly Information containing
 - Major Events Timeline
 - User Loading Profiles
 - Monthly Subnet Support Projection