

## VLBA Utilization Report December 2001

Prog#	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BB136	Brisken, W.F. Golden, A. Goss, M. Thorsett, S.	NRAO-Socorro Ireland NRAO-Socorro UC-Santa Cruz	Parallax for PSR B0656+14 and measuring the radius of a neutron star	18	11		10.0
BB137	Baudry, A. Desmurs, J.-F. Diamond, P.J.	Bordeaux OAN (Jodrell Bank)	Observations of the recently discovered 13.4 GHz OH maser in ON1	2	15		14.0
BB142	Brunthaler, A. Falcke, H. Greenhill, L. Henkel, C. Reid, M.	CfA MPIfR CfA MPIfR CfA	Second epoch observations for extragalactic proper motions in the local group with the VLBA	1	1		18.50
BB143	Braatz, J. Greenhill, L. Henkel, C. Moran, J. Wilson, A.	NRAO-GB CfA MPIfR CfA Maryland	Imaging the nuclear water maser in Mrk 1419	1.3 with EB, Y27	4		11.0
BC113	Chatterjee, S. Arzoumanian, Z. Cordes, J. Lazio, T.J.W. McLaughlin, M.	Cornell NASA Cornell NRL Cornell	Preliminary VLBA observations of a Hyper-fast pulsar	20	1		1.25
BD079	Diamond, P.J. Kemball, A.J.	Jodrell Bank NRAO-Socorro	TX Cam returns	0.7 with Y1	18		8.0
BG109	Girart, J.M. Curiel, S. Rodriguez, L.F.	Illinois UNAM UNAM	Radio identification of the very strong x-ray source in YLW 15	6	14		4.25
BG113	Gomez, J.L. Marscher, A.P. Marchenko-Jorstad, Alberdi, A. Agudo, I. Marti, J.M. Aloy, M.A. Ibanez, J.M.	IAA Boston Boston IAA IAA U. Jaen Valencia Valencia	Monitoring superluminal components in 3C120	0.7, 1.3, 2	13		12.0
BG116	Geldzahler, B.J. Bradshaw, C.F. Fomalont, E.B.	George Mason George Mason NRAO-CV	Astrometric observations of the compact radio source G127.11+0.54	4	23		8.0
BG118	Greenhill, L. Chandler, C.J. Diamond, P. Moran, J.M. Reid, M.J.	CfA NRAO-Socorro Jodrell Bank CfA CfA	SiO maser motions in Orion BN/KL	0.7 with Y1	21		8.0
BG122	Goedhart, S. Gaylard, M. Minier, V. Quick, J. van der Walt, J.	HartRAO HartRAO New South Wales HartRAO Potchesfstrom	Progression of a flare in the methanol maser source G9.62+0.20E	2	6,9		12.5
BI024	Imai, H. Diamond, P.J.	NAO Jodrell Bank	Collimated molecular jet in W 43A traced by water maser emission	20	20		10.0
BK080	Krichbaum, T.P. Graham, D.A. Romney, J.D. Witzel, A. Zensus, J.A.	MPIfR MPIfR NRAO-Socorro MPIfR MPIfR	Precession or helical instabilities in 3C273?	.7, .3	10		10.25
BK086	Krichbaum, T.P. Fuhrmann, L. Beckert, T. Cimo, G. Kraus, A. Witzel, A.	MPIfR MPIfR MPIfR MPIfR MPIfR MPIfR	Intermittently IDV source 0917+62	1.3, 2 with EB	26		12.0
BK090	Krichbaum, T.P. Bach, U. Terasranta, H. Ungerechts, H. Witzel, A. Zensus, J.A.	MPIfR MPIfR Metsahovi IRAM MPIfR MPIfR	VLBA monitoring of 1633+382 after a major millimeter-flare	1.3, 7	8		13.25
BM157	Mantovani, F. Junor, W. Sajikia, D.J. Salter, C.J.	Bologna New Mexico NCRA Arecibo	Polarization and rotation measure in CSS QSOs	3.6, 6 With Y1	5		12.0

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Prog#	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BM162	Marscher, A.P. Aller, M.F. Jorstad, S.G. McHardy, I.	Boston Michigan Boston Southampton	Relationship between X-ray flares and superluminal ejections in blazars		1, .7	3	12.0
BM164	Middelberg, E. Gabuzda, D. Kadler, M. Roy, A.	MPIfR JIVE MPIfR MPIfR	Polarimetry of NGC 1052	2		28	10.25
BN018	Nakai, N. Ishihara, Y. Sato, N. Diamond, P.	NAO NAO NAO Jodrell Bank	New water maser features in NGC 3079		1.3 with Y27	17	14.0
BN019	Nagar, N. Falcke, H. Wilson, A.S.	Arcetri MPIfR Maryland	Parsec-scale radio cores in low-luminosity AGN	6		7	16.0
BR071	Ratner, M.I. Bartel, N. Bietenholz, M.F. Lebach, D.E. Lestrade, J-F. Ransom, R.R. Shapiro, I.I.	CfA York York CfA Meudon York U. CfA	Astrometry of HR 8703 in 2001 for the gravity probe-b mission		2, 3.6, 6 with EB, Y27, RO, GO, TI	21	18.0
BR074	Romney, J.D. Kellermann, K.I. Walker, R.C. Zensus, J.A.	NRAO-Socorro NRAO-Socorro NRAO-Socorro MPIfR	VLBA 3mm commissioning observations of four bright sources		.7, .3	10	13.25
BR077	Ros, E. Cohen, M.H. Kadler, M. Kellermann, K.I. Lister, M.L. Vermeulen, R.C. Zensus, J.A.	MPIfR Caltech MPIfR NRAO-CV NRAO-CV Dwingeloo MPIfR	Kinematics of parsec-scale structure in AGN: a survey at 2cm	2	22, 23, 26, 29, 30		48.0
BS103	Schmitt, H. Antonucci, R.R.J. Kinney, A.L. Pringle, J.E. Ulvestad, J.S.	NRAO-Socorro Calif., Santa Barbara NASA IoA NRAO-Socorro	Orientation of jets relative to dust disks in radio galaxies	13		6	7.25
BS104	Schmitt, H.R. Antonucci, R.R. Kinney, A.L. Pringle, J.E. Ulvestad, J.S.	NRAO-Socorro Calif., Santa Barbara NASA IoA NRAO-Socorro	Parsec-scale jets and the inner structure of Seyfert galaxies	6		12, 14, 31	10.5
BT060	Trinidad, M.A. Anglada, G. Canto, J. Curiel, S. Garay, G. Gomez, J.F. Ho, P.T.P. Patel, N. Rodriguez, L.F. Torrelles, J.M.	UNAM CSIC UNAM UNAM Chile LAEFF CfA Cfa UNAM CSIC	Proper motion studies of circumstellar water masers in AFGL 2591 and Lkh 234	1		2	12.25
BT062	Taylor, G. Harris, D.	NRAO-Socorro CfA	Constraining the jet orientation in the radio galaxy 3C129	6		16	4.25
BW056	Winn, J.N. Lovell, J.E.J.	MIT ATNF	An unusual gravitationally lensed quasar	90, 20		7	11.25
BW057	Winn, J. Lovell, J.E.J.	CfA ATNF	Completion of a southern gravitational lens survey	20, 6		9	5.0
W315	Murphy, D. Marshall, H. Canizares, C. Coppi, P. Preston, R. Piner, G. Lister, M. Edwards, P. Hirabayashi, H.	JPL MIT MIT Yale JPL Whittier College NRAO-CV ISAS ISAS	3C273 and 1156+295		6 with EB	12	9.5
W405	Argon, A.L. Reid, M.J. Greenhill, L.J. Moran, J.M.	CfA CfA CfA CfA	Nuclear jet in M87		6, 18 with RO, GO, Y27	22, 23, 26	8.0

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Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
W421	Lobanov, A.P. Zensus, J.A. Abraham, Z. Carrara, E.	MPIfR MPIfR Sao Paulo Sao Paulo	Parsec scale jet in superluminal quasar 3C 273		6	28	3.0
	Staff	NRAO	Maintenance				96.0

The average downtime was 20.6 hours (5.6%)

Actual observing time was 347.1 hours

The VLBA was scheduled 86% of the time 575.2 hours of a possible  
672 hours

Astronomical Observations	= 55.0%	(367.7 hours)
Tests and Calibrations	= 22.0%	(145.5 hours)
Maintenance	= 9.0%	( 62.0 hours)

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Prog#	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BA051	Aller, H.D. Aller, M.F. Homan, D.C. Hughes, P.A. Roberts, D.H. Wardle, J.F.C.	Michigan Michigan Brandeis Michigan Brandeis Brandeis	Oblique shocks in jets: the evolution of Parsec-Scale structures of sources with rapidly variable polarization		4,2,1,.7	2	24.0
BA054	Alberdi, A. Colina, L. Panagia, N. Torrelles, J.M. Wilson, A.	IAA IFCA STScI IEEC-CSIC Maryland	VLBI observations of the radio superova RSN J230315+0852.4 in the circumnuclear starburst of the Seyfert 1 Galaxy NGC 7469		20,6	26,29	14.0
BB123	Brotherton, M.S. Beasley, A.J. Becker, R.H. Gregg, M. Lacy, M. Laurent-Muehleisen,	NOAO OVRO LLNL LLNL Calif.-Davis LLNL	Milliarcsecond structure of radio-bright broad absorption line quasars		20	30	12.5
BB142	Brunthaler, A. Falcke, H. Greenhill, L. Henkel, C. Reid, M.	CfA MPIfR CfA MPIfR CfA	Second epoch observations for extragalactic proper motions in the local group with the VLBA		1	30	2.0
BC111	Cotton, W.D. Mennesson, B. Vlemmings, W. Perrin, G. Coude du Foresto, V Chagnon, G. Diamond, P.J. van Langevelde, H.J Ridgway, S. Morel, S. Traub, W. Carleton, N. Lacasse, M. Waters, R.	NRAO-CV Leiden Leiden Meudon Paris Obs. Paris Obs. Jodrell Bank JIVE NOAO CfA CfA CfA CfA Amsterdam	Bright O-rich Mira stars		0.7 With Y1	10	18.0
BC116	Chatterjee, S. Cordes, J.M. Goss, M. Fomalont, E.B. Benson, J. Lazio, T. Arzoumanian, Z.	Cornell Cornell NRAO-Socorro NRAO-CV NRAO-Socorro NRL NASA-GSFC	High frequency VLBA astrometry of pulsars		6	16, 20	12.0
BD073	Doeleman, S.S. Attridge, J. Lonsdale, C.	Haystack Haystack Haystack	Magnetic fields in environments of SiO masers		7,3	28	6.25
BD079	Diamond, P.J. Kemball, A.J.	Jodrell Bank NRAO-Socorro	TX Cam returns		0.7 With Y1	12	8.0
BE023	Edwards, P.G. Piner, G.	ISAS Whittier	Markarian 421 - monitoring after a TeV outburst		1	8	10.0
BF066	Fomalont, E. Alberdi, A. Baan, W. Garrett, M. Garrington, S. Kellermann, K. Muxlow, T. Richards, E.	NRAO-CV LAEFF JIVE JIVE Jodrell Bank NRAO-CV Jodrell Bank Alabama	VLBI observations of the SA 13 Deep field		20	16	4.0
BG113	Gomez, J.L. Marscher, A.P. Marchenko-Jorstad, Alberdi, A. Agudo, I. Marti, J.M. Aloy, M.A. Ibanez, J.M.	IAA Boston Boston IAA IAA U. Jaen Valencia Valencia	Monitoring superluminal components in 3C120		0.7, 1.3, 2	10	12.0
BG118	Greenhill, L. Chandler, C.J. Diamond, P. Moran, J.M. Reid, M.J.	CfA NRAO Jodrell Bank CfA CfA	SiO maser motions in Orion BN/KL		0.7 With Y1	19	8.0

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BG122	Goedhart, S. Gaylard, M. Minier, V. Quick, J. van der Walt, J.M.	HartRAO HartRAO New South Wales HartRAO Potchefstroom	Progression of a flare in the methanol maser source G9.62+0.20E		2	7,21	10.0
BH069	Hachisuka, K. Fujisawa, K. Honma, M. Imai, H. Kameya, O. Kawaguchi, N. Manabe, S. Miyoshi, M. Nishio, M. Omodaka, T. Sasao, T. Sawada-Satoh, S.	Graduate University NAO NAO NAO NAO NAO NAO NAO NAO NAO NAO	Determination of the velocity of Galactic rotation at IRAS 21008+4700		1	8	5.25
BH080	Hough, D.H.	Trinity	Variability in the nuclei of lobe-dominated quasars		4	9	4.5
BH085	Hoffman, I. Goss, M. Brogan, C. Claussen, M.	NRAO-Socorro NRAO-Socorro NRAO-Socorro NRAO-Socorro	1720 MHz OH masers in SNR IC 443		18 With Y1	2	13.0
BH092	Hough, D.	Trinity	Second epoch imaging of five faint nuclei in lobe-dominated quasars		4	4	24.0
BK076	Kurayama, T. Sasao, T.	Tokyo NAO	Parallax measurement of Miras for period-luminosity relation		1	11	5.0
BL104	Lobanov, A.P. Roland, J. Ros, E. Zensus, J.A.	MPIfR IAP MPIfR MPIfR	Cross-band monitoring of a flare in the VLBI core of 3C345		2,1,.7	11	4.0
BM162	Marscher, A.P. Aller, M.F. Jorstad, S.G. McHardy, I.	Boston Michigan Boston Southampton	Relationship between x-ray flares and superluminal ejections in blazars		1,.7	1	12.0
BR075	Roshi, D.A. Goss, M. Subrahmanyam, R.	NRAO-GB NRAO-Socorro ATNF	Study of scatter broadening of the compact radio source in the direction of NGC 1977		13,6	26	10.25
BR077	Ros, E. Cohen, M.H. Kadler, M. Kellermann, K. Lister, M.L. Vermeulen, R.C. Zensus, J.A.	MPIfR Caltech MPIfR NRAO-CV NRAO-CV Dwingeloo MPIfR	Kinematics of parsec-scale structure in AGN: a survey a 2cm		2	7	8.25
BS087	Sudou, H. Iguchi, S. Murata, Y. Taniguchi, Y.	Tohoku University NAO ISAS Tohoku University	Phase-referencing VLBI observations of 3C 66B		13,4	9	11.5
BS090	Shepherd, D. Claussen, M. Kurtz, S.	NRAO-Socorro NRAO-Socorro UNAM	Water masers in the massive accretion disk of G192.16		6	16	8.0
BS096	Suda, H. Honma, M. Sasao, T.	Tokyo NAO NAO	Phase referencing VLBA observations of water maser source in the inner galaxy for resolving distance ambiguity and determining galactic constants		1	3	8.0
BS104	Schmitt, H.R. Antonucci, R. Kinney, A. Pringle, J.E. Ulvestad, J.	NRAO-Socorr Calif.-Santa Barbara NASA IoA NRAO-Socorr	Parsec scale jets and the inner structure of Seyfert galaxies		6	15,22	12.0
BT058	Tinti, S. Dallacasa, D. Fanti, R. Fanti, C. Gregorini, L. Vigotti, M. Stanghellini, C.	Bologna Bologna Bologna Bologna Bologna Bologna Noto	Morphological/spectral study of B3-VLA CSSs		3.6, 6 With Y1	5	24.0
BW056	Winn, J. Lovell, J.E.J.	MIT ATNF	An unusual gravitationally lensed quasar		90,20	15	11.0

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GB042	Barrel, N. Rupen, M. Bietenholz, M. Beasley, A.J. Graham, D.A. Altunin, V.I. Venturi, T. Umana, G. Cannon, W.H. Conway, J.E.	York NRAO-Socorro York OVRO MPIfR JPL Bologna Noto York Onsala	SN 1993J and the core jet counterjet in M81		18 With EbWbJbMcOnRoGoY27	25	12.0
GM045	Morganti, R. Oosterloo, T. Peck, A. Sandro, C. Parma, P. de Ruiter, H. Fanti, R. van Moorsel, G.	NFRA NFRA MPIfR Torino Bologna Bologna Bologna NRAO-Socorro	Thin disks in FRI radio galaxies?		18 With EbWbOnMcTrJbY27	24	24.0
GM046	Marcaide, J.M. Guirado, J.C. Alberdi, A. Lara, L. Ros, E. Diamond, P.J. Shapiro, I.I. Preston, R.A. Schilizzi, R.T. Mantovani, F. Perez-Torres, M.A. Trigilio, C. Van Dyk, S. Weiler, K.W. Sramek, R.A. Whitney, A.R.	Valencia Valencia IAA IAA MPIfR Jodrell Bank CfA JPL JIVE Bologna Bologna Noto IPAC NRL NRAO-Socorro Haystack	Monitoring the expansion of SN 1993J at 6 and 18cm		6, 18 With EB, JB, WB, Y27	18	11.0
GP030	Porcas, R.W. Patnaik, A.R. Garrett, M.A. Nair, S.	MPIfR MPIfR JIVE Raman	Global VLBI study of gravitational lens 2016+112		18 With EbWbJbCmMcTrOnArY27	17	13.0
W302	Giovannini, G. Lara, L. Cotton, W.D. Venturi, T.	Bologna IAA NRAO-CV Bologna	BL Lac type objects Mkn 501, Mkn 421		6, 18 With RO, GO	26, 27	23.0
W305	Gabuzda, D.C. Pushkarev, A.B. Garnich, N.N.	JIVE ASC Sternberg	Toroidal B fields in BL Lac objects		6 With Y27	14	9.0
W404	Hough, D.H. Murphy, D.W. Readhead, A.C. Vermeulen, R.C. Wood, D.A.	Trinity JPL Caltech NFRA NM Highlands	Sub-mas structure and motion in lobe-dominated quasars		6	29	3.5
W503	Britzen, S. Krichbaum, T.P. Witzel, A. Zensus, J.A. Strom, R.G.	NFRA MPIfR MPIfR MPIfR Amsterdam	BL Lac object S5 1803+784		18 with UD	15	8.0
W605	Mutoh, M. Inoue, M. Kameno, S. Asada, K. Fujisawa, K. Staff	NAO NAO NAO NAO NAO NRAO	A test of the 90d jump of position angle in GPS sources		6, 18 With EB	19, 20	17.0
			Maintenance				84.0

The average downtime was 4.2 hours (1.0%)

Actual observing time was 417.8 hours

The VLBA was scheduled 83.0% of the time 578.2 hours of a possible 696 hours

Astronomical Observations = 61.0% (422.0 hours)  
 Tests and Calibrations = 14.0% ( 97.2 hours)  
 Maintenance = 8.0% ( 59.0 hours)

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BC114	Clark, T. Ma, C. Johnston, K. Fey, A. Gordon, D. Gaume, R. Boboltz, D. Kingham, K. Vandenberg, N. Himwich, E. Shaffer, D. Fomalont, E. Walker, C.	GSFC GSFC USNO USNO GSFC USNO USNO GSFC GSFC Radiometrics NRAO-CV NRAO-Socorro	VLBA Geodesy/Astrometry observations for 2001		3.6 Scheduled as RDV30	29	25.0
BD075	Darling, J. Menten, K. Peck, A.	Cornell Univ. MPIR, Bonn MPIR, Bonn	Imaging OH Megamaser Emission at z >0.1	20	4,10,14	36.50	
BD079	Diamond, P.J. Kemball, A.J.	Jodrell Bank NRAO-Socorro	TX Cam returns		0.7 With Y1	12	8.0
BF068	Filho, M. Barthel, P. Ho, L. Nagar, N.	Kapteyn Kapteyn OCIW Arcetri	Parsec Scale Radio cores in "Transition" LINERs. Part II	6	6		9.50
BG103	Gabuzda, D. Pushkarev, A.B.	JIVE ASC	Unique parsec-scale properties of the BL Lac object 0820+225		6,4,2	13	14.0
BG113	Gomez, J.L. Marscher, A.P. Marchenko-Jorstad, Alberdi, A. Agudo, I. Marti, J.M. Aloy, M.A. Ibanez, J.M.	IAA Boston Boston IAA IAA Jaen Valencia Valencia	Monitoring superluminal components in 3C120		0.7, 1.3, 2	11	12.0
BG117	Gabuzda, D.C. Agudo, I. Cawthorne, T.V. Gomez, J.L.	JIVE IAA Central Lancashire IAA	Clues to unusual bending in 0735+178		4,2,1,.7	22	10.25
BG118	Greenhill, L. Chandler, C.J. Diamond, P. Moran, J.M. Reid, M.J.	CfA NRAO-Socorro Jodrell Bank CfA CfA	SiO maser motions in Orion BN/KL		0.7 With Y1	21	8.0
BG122	Goedhart, S. Gaylard, M. Minier, V. Quick, J. van der Walt, J.	HartRAO HartRAO New South Wales HartRAO Potchefstroom	Progression of a flare in the methanol maser source G9.62+20E	2	11,18,22,30		25.0
BH077	Omodaka, T. Hachisuka, K. Sasao, T. Honma, M. Imai, H. Kameya, K. Manabe, S. Miyoshi, M. Mochizuki, N. Nisio, M. Sasao, T. Sawada-Satoh, S.	Kagoshima Graduated University NAO NAO NAO NAO NAO NAO Graduated University Kagoshima NAO NAO	Detection of an annual parallax of water masers in W3 (OH)	1	23		4.25
BH088	Diamond, P.J. Miyoshi, M.	Jodrell Bank NAO	Single black hole formation in an on-going merger?	1	3		9.25
BK076	Kurayama, T. Sasao, T.	NAO NAO	Parallax measurement of Miras for Period-luminosity relation	1	13		5.0
BL098	Lovell, J.E.J. Edwards, P.G. Jauncey, D.L. Jones, D.L. Reynolds, J.E. Tzioumis, A.K. Wieringa, M.H.	ATNF ISAS ATNF JPL ATNF ATNF ATNF	Improving the precision of Ho measured from the gravitational lens 1830-211		4,2,1	21	11.25
BM146	Miyoshi, M. Deguchi, S. Imai, H. Nakashima, J.	NAO Nobeyama NAO Graduate University	Precise proper-motion measurement of the SiO maser sources at the Galactic Center Relative to Sgr A*	7	20		7.0

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BM154	Marvel, K. Alcolea, J. Boboltz, D. Bujarrabal, V. Colomer, F. Desmurs, J.F. Diamond, P. Kemball, A.	AAS OAN USNO OAN OAN OAN Jodrell Bank NRAO-Socorro	Spatial distribution of SiO masers in AGB stars		7,3	3	8.25
BM157	Mantovani, F. Junor, W. Saikia, D.J. Salter, C.J.	Bologna New Mexico NCRA Arecibo	Polarization and rotation measure in CSS QSOs		3.6, 6 With Y1	5	12.0
BR071	Ratner, M.I. Bartel, N. Bietenholz, M.F. Lebach, D.E. Lestrade, J-F. Ransom, R.R. Shapiro, I.I.	CfA York York CfA Meudon York CfA	Astrometry of HR 8703 in 2001 for the gravity probe-b mission		2, 3.6, 6 With Y27 EB RO GO T1	19	19.0
BR072	Reynolds, C. Cawthorne, T.V. Gabuzda, D. Pushkarev, A.	JIVE Central Lancashire JIVE ASC	Non-uniform Faraday rotation in BL Lac objects		6,4,2,1	14	18.25
BR077	Lister, M.L. Cohen, M. Kadler, M. Kellermann, K. Ross, E. Vermeulen, R.C.	NRAO-CV Caltech MPIR NRAO-CV MPIR ASTRON	Kinematics of parsec-scale structure in AGN: a survey at 2cm		2	31	8.25
BR078	Rupen, M. Dhawan, V.	NRAO-Socorro NRAO-Socorro	V445 Pup - Target of Opportunity		13, 4	7	8.75
BS103	Schmitt, H. Antonucci, R. Kinney, A.L. Pringle, J.E. Ulvestad, J.	NRAO-Socorro Calif.-Santa Barbara NASA Cambridge NRAO-Socorro	Orientation of jets relative to dust disks in radio galaxies		13	2,5	14.5
BS104	Schmitt, H. Antonucci, R. Kinney, A.L. Pringle, J.E. Ulvestad, J.	NRAO-Socorro Calif.-Santa Barbara NASA Cambridge NRAO-Socorro	Parsec-scale jets and the inner structure of Seyfert galaxies		6	3,4	6.50
BS110	Spencer, R. Dhawan, V. McCormick, D.G. Mioduszewski, A. Pooley, G. Rupen, M. Stirling, A.	Jodrell Bank NRAO-Socorro Jodrell BANK NRAO-Socorro MRAO NRAO-Socorro Central Lancashire	Target of Opportunity Cygnus X-1		13,4,2	15	12.00
BW054	Walker, C. Wrobel, J.	NRAO-Socorro NRAO-Socorro	Jet collimation regions		7	12	9.0
BW056	Winn, J. Lovell, J.E.J.	MIT ATNF	An unusual gravitationally-lensed quasar		90,20,13	8,17	22.0
BW057	Winn, J. Lovell, J.E.J.	MIT ATNF	Completion of southern gravitational lens survey		6	5,7,8	15.75
W059	Kedziora-Chudczer, Jauncey, D.L. Reynolds, J.E. Tzioumis, A.K. Wieringa, M.H. Nicolson, G.D. Quick, J.F.H. Walker, M.A. McCulloch, P.M.	ATNF ATNF ATNF ATNF ATNF Hartebeesthoek Hartebeesthoek Sydney Tasmania	Complete sample of intra-day variables		6 with AT	6	6.0
W323	Jones, D.L. Preston, R.A. Meier, D.L. Murphy, D.W. Lister, M. Piner, B.G.	JPL JPL JPL JPL NRAO-CV JPL	Cores of compact sources AO 0235+164 and 0735+178		6, 18 With Y27, EB, GO	18, 19	23.0
W330	Kameno, S. Wajima, K. Zhi-Qiang, S. Inoue, M. Sawada-Satoh, S.	NAO ISAS ISAS NAO ISAS	Complementary multi-frequency GPS survey		18 With RO, GO	16	12.0

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	Staff	NRAO	Coordinated Millimeter VLBA Array Maintenance		0.3	25	95.0 108.0

The average downtime was 13.25 hours (2.8%)

Actual observing time was 460.25 hours

The VLBA was scheduled 86.0% of the time 639.6 hours of a possible 744 hours

Astronomical Observations = 64.0% (473.50 hours)  
 Tests and Calibrations = 12.0% ( 91.10 hours)  
 Maintenance = 10.0% ( 75.00 hours)

## VLBA Utilization Report September 2001

Prog#	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BA045	Alberdi, A. Gomez, J.L. Marcaide, J.M. Marscher, A.P. Perez-Torres, M.A.	IAA IAA Valencia Boston University IRA	Interaction of moving and standing components in 4C39.25		2,1,.7	3	14.0
BC115	Chatterjee, S. Cordes, J.M. Goss, M. Fomalont, E. Beasley, A. Benson, J. Lazio, T.J. Arzoumanian, Z.	Cornell Cornell NRAO-Socorro NRAO-CV Caltech-OVRO NRAO-Socorro NRL NASA-GSFC	Neutron star kinematics: gated VLBA pulsar astrometry	18	1, 2		16.0
BD079	Diamond, P.J. Kemball, A.J.	Jodrell Bank NRAO-Socorro	TX Cam returns		0.7 With Y1	14	8.0
BF068	Barthel, P.D. Filho, M.E. Ho, L.C. Nagar, N.M.	Kapteyan Kapteyn OCIW Arecchi	Parsec scale radio cores in transition LINERs		13,6,2	1,8,17	32.75
BG113	Gomez, J.L. Marscher, A.P. Marchenko-Jorstad, Alberdi, A. Agudo, I. Marti, J.M. Aloy, M.A. Ibanez, J.M.	IAA Boston Boston University IAA IAA U. Jaen Valencia Valencia	Monitoring superluminal components in 3C120		0.7, 1.3, 2	9	12.0
BG118	Greenhill, L. Chandler, C.J. Diamond, P. Moran, J.M. Reid, M.J.	CfA NRAO Jodrell Bank CfA CfA	SiO maser motions in Orion BN/KL		0.7 With Y1	19	8.0
BH083	Hirota, T. Hachisuka, K. Imai, H. Omodaka, T. Sasao, T.	Kagoshima Graduate Univ. NAO Kagoshima NAO	Measurements of proper motion of the Orion-monoceros molecular cloud complex		1	24	7.25
BH085	Hoffman, I. Brogan, C. Claussen, M.J. Goss, M.	UNM NRAO-Socorro NRAO-Socorro NRAO-Socorro	VLBA + VLA1 imaging of the 1720 MHz OH masers in SNR IC 443		20	8	2.75
BH087	Ho, P.T.P. Anglada, G. Canto, J. Curiel, S. Garay, G. Gomez, J.F. Greenhill, L.J. Patel, N. Rodriguez, L.F. Sollins, P.K. Torrelles, J.M.	CfA IAA UNAM UNAM UNAM IAA CfA CfA UNAM CfA IAA	Tracking a puff of spherically symmetric ejection in Cepheus A		1	13	12.0
BH088	Hagiwara, Y. Diamond, P.J. Miyoshi, M.	MPIfR MPIfR NAO	Single black hole formation in an on-going merger?		1	28	9.25
BI018	Iguchi, S. Fujisawa, K. Inoue, M. Kameno, S.	NAO NAO NAO NAO	An extremely Doppler-boosting source: OT081		4,2,1,.7	13	10.25
BK076	Kurayama, T. Sasao, T.	NAO NAO	Parallax measurement of Miras for Period-Luminosity relation		1	10	5.25
BL104	Lobanov, A.P. Roland, J. Ros, E. Zensus, J.A.	MPIfR MPIfR MPIfR MPIfR	Cross band monitoring of a flare in the VLBI core of 3C345		2,1,.7	24	3.75
BM126	Mioduszewski, A. Rupen, M.	NRAO-Socorro NRAO-Socorro	Target of opportunity observations of the x-ray binary Cygnus X-3 during and after a large flare		20,6,2,1 2	18,19,20,2	68.0
BM140	Massi, M. Franciosini, E. Ros, E.	MPIfR Palermo Obs. MPIfR	The corona of UX Arietis		3.6 With EB	21, 23, 25, 27	24.0

## VLBA Utilization Report September 2001

Prog#	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BM142	Marcaide, J.M. Guirado, J.C. Perez-Torres, M.A. Ros, E.	Valencia Valencia Bologna MPIfR	Multi-wavelength absolute kinematics in the S5 polar cap sample		0.7, 2, 3.6	15	24.0
BM156	Mutoh, M. Asada, K. Fujisawa, K. Inoue, M. Kameno, S.	NAO NAO NAO NAO NAO	Test of 90 degrees jump of the polarization position angle in GPS sources		20,13,6,4, 2,1	6	16.75
BM157	Mantovani, F. Junior, W. Saikia, D.J. Salter, C.J.	Bologna New Mexico NCRA-Pune Arecibo	Polarization and rotation measure in CSS QSOs		3.6, 6 With Y1	8, 29	22.0
BM159	Momjian, E. Romney, J.D. Carilli, C. Troland, T.	Kentucky/NRAO NRAO-Socorro NRAO-Socorro Kentucky	VLBA observations of the ultra luminous infrared galaxies		18 With Y27, AR	15	12.0
BR078	Rupen, M. Dhawan, V.	NRAO-Socorro NRAO-Socorro	Target of Opportunity - V445Pup		13,4	13	3.75
BS104	Schmitt, H.R. Antonucci, R. Kinney, A.L. Pringle, J. Ulvestad, J.	NRAO-Socorro Calif.-Santa Barbara NASA IoA NRAO-Socorro	Parsec-scale jets and the inner structure of Seyfert galaxies		6	23,25,26	11.25
BZ028	Zhang, H. Gabuzda, D. Jin, C. Nan, R.	Beijing JIVE Beijing Beijing	Parsec-scale rotation measure distributions of three compact CSS sources		6,4	14	8.25
V050	Kollgaard, R.I.	Fermilab	Subparsec scale structure of x-ray selected BL Lacertae objects			1	11.0
W018	Snellen, I.A.G. Tschager, W. Schilizzi, R.T. deBruyn, A.G. Miley, G.K. Rottgering, H.J.A. vanLangevelde, H.J. Fanti, C. Fanti, R.	Cambridge Leiden JIVE NFRA Leiden Leiden NRAO-Socorro Bologna Bologna	GPS galaxies and quasars		18	23	11.0
W314	Murphy, D.W. Conway, J.E. Polatidis, A. Preston, R.A. Hirabayashi, H. Murata, Y. Kobayashi, H.	JPL Onsala JIVE-Onsala JPL ISAS ISAS NAO	Regular monitoring of 1928+738		6 With EB	3	10.0
W402	Murphy, D.W. Lister, M. Preston, R. Hirabayashi, H. Edwards, P. Tingay, S.	JPL NRAO-CV JPL ISAS ISAS ATNF	High ecliptic latitude monitoring program		6	21	10.5
W418	Gurvits, L.I. Dennett-Thorpe, J. de Bruyn, A.G.	JIVE Groningen NFRA	Extremely variable IDV source J1819+3845		6 With Y27, WB	16, 17	17.5
W425	Lister, M.L. Murphy, D.W. Preston, R.A.	NRAO-CV JPL JPL	High fidelity VSOP imaging of GPS sources		6	26	10.0
W603	Tingay, S.J. Edwards, P.G. Reynolds, J.E. Tornikoski, M. Staff	ATNF ISAS ATNF Metsahovi NRAO	PKS 0521-365 Maintenance	FKM	6 For correlatio n in Penticton	11, 12	16.0 96.0

The average downtime was 11.25 hours (2.7%)

Actual observing time was 406.0 hours

The VLBA was scheduled 81% of the time 582.4 hours of a possible  
720 hours

Astronomical Observations	= 58.0%	(417.25 hours)
Tests and Calibrations	= 14.0%	( 97.15 hours)
Maintenance	= 9.0%	( 68.0 hours)

## VLBA Utilization Report August 2001

Prog#	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BB130	Bower, G. Backer, D. Falcke, H. Goss, M. McGary, R. Zhao, J-H.	Calif.-Berkeley Calif.-Berkeley MPIfR NRAO-Socorro CfA CfA	Detecting outflow and expansion in Sagitarrius A*		1, .7	5	6.75
BB136	Brisken, W.F. Golden, A. Goss, M. Thorsett, S.	Princeton Galway NRAO-Socorro UC-Santa Cruz	Parallax for PSR B0656+14 and measuring the radius of a neutron star		18	29	5.0
BC111	Cotton, W.D. Mennesson, B. Vlemmings, W. Perrin, G. Coude du Foresto, V. Chagnon, G. Diamond, P.J. van Langeveld, H.J. Ridgway, S. Morel, S. Traub, W. Carleton, N. Lacasse, M. Waters, R.	NRAO-CV Leiden Leiden Meudon Paris Obs. Paris Obs. Jodrell Bank JIVE NOAO CfA CfA CfA Amsterdam	Bright O-rich Mira stars		0.7 with Y1	4	18.0
BC115	Chatterjee, S. Cordes, J.M. Goss, M. Fomalont, E. Beasley, A. Benson, J. Lazio, T.J. Arzoumanian, Z.	Cornell Cornell NRAO-Socorro NRAO-CV Caltech-OVRO NRAO-Socorro NRL NASA-GSFC	Neutron star kinematics: gated VLBA pulsar astrometry		18	31	8.0
BD069	Diamond, P.J. Kemball, A.J.	Jodrell Bank NRAO-Socorro	TX Cam: the final curtain		0.7 with Y1	16	8.0
BE023	Edwards, P.G. Piner, B.G.	ISAS Whittier College	Markarian 421-Monitoring after a TeV outburst		1	12	10.0
BG113	Gomez, J.L. Marscher, A.P. Marchenko-Jorstad, Alberdi, A. Agudo, I. Marti, J.M. Aloy, M.A. Ibanez, J.M.	IAA Boston Boston University IAA IAA U. Jaen Valencia Valencia	Monitoring superluminal components in 3C120		0.7, 1.3, 2	9	12.0
BG114	Gabuzda, D. Cawthorne, T.V. Pushkarev, A.B.	JIVE Lancashire ASC	Toroidal B fields in BL Lac objects		6,4,2,1	18	9.0
BG118	Greenhill, L. Chandler, C.J. Diamond, P. Moran, J.M. Reid, M.J.	CfA NRAO Jodrell Bank CfA CfA	SiO maser motions in Orion BN/KL		0.7 with Y1	24	8.0
BH077	Hachisuka, K. Nisio, M. Fujisawa, K. Honma, M. Imai, H. Kameya, K. Manabe, S. Miyoshi, M. Mochizuki, N. Nisio, M. Omodaka, T. Sasao, T. Sawada-Satoh, S.	Graduated University Kagoshima NAO NAO NAO NAO NAO Graduated University Kagoshima Kagoshima NAO NAO	Detection of an annual parallax of water masers in W3(OH)		1	25	4.25
BH080	Hough, D.H.	Trinity University	Variability in the nuclei of lobe-dominated quasars		4	18	5.75
BH086	Homan, D. Wardle, J. Roberts, D. Attridge, J.	Brandeis Brandeis Brandeis Haystack	The misaligned jet in PKS 1510-089		6 with Y1	11	10.0

## VLBA Utilization Report August 2001

Prog#	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours	
BH087	Ho, P.T.P. Anglada, G. Canto, J. Curiel, S. Garay, G. Gomez, J.F. Greenhill, L. Patel, N. Rodriguez, L.F. Sollins, P.K. Torrelles, J.M.	CfA IAA UNAM Universidad de Chile Universidad de Chile LAEFF CfA CfA UNAM CfA CSIC	Tracking a "Puff" of spherically symmetric ejection in Cepheus A		1	18		12.0
BK076	Kurayama, T. Sasao, T.	NAO NAO	Parallax measurement of Miras for Period-luminosity relation		1	13	5.0	
BK084	Kameno, S. Inoue, M. Sawada-Satoh, S. Wajima, K. Zhi-Qiang, S.	NAO NAO ISAS ISAS ISAS	Free-free absorption towards an active galaxy NGC 1052		13,4,2	17	11.0	
BL086	Lobanov, A. Ros, E. Zensus, A.	MPIfR MPIfR MPIfR	Monitoring of the ongoing flare in the VLBI core of 3C345		2,1,.7	8	3.0	
BL102	Lara, L. Alberdi, A. Guirado, J. Marcaide, J.M. Perez-Torres, M.A. Ros, E.	IAA IAA Valencia Valencia IRA MPIfR	Kinematics and rotation measure in the inner jet of 3C395		2,1	10,21	20.25	
BL104	Lobanov, A. Roland, J. Ros, E. Zensus, A.	MPIfR IAP MPIfR MPIfR	Cross band monitoring of a flare in the VLBI core of 3C345		2,1,.7	7	4.25	
BM155	Mutel, R. Helton, A. Su, B.	Iowa Iowa Yunnan Observatory	Structure of magnetic fields in AGN Jets: testing the shock model		2,1,.7	6	10.25	
BM162	Aller, M.F. Jorstad, S.G. McClardy, I.M.	U. Michigan Boston University Southampton	Relationship between X-ray flares and superluminal ejections in blazars		13,6,4,2,1	19	12.25	
BP082	Pyatunina, T.B. Aller, M.F. Gabuzda, D. Jorstad, S.G. Terasranta, H. Aller, H.D.	Institute of Applied Michigan JIVE Boston Metsahovi Michigan	Multi-frequency polarization imaging of blazars with cyclic activity		4,2,1.7	25	24.25	
BS092	Shen, Z.-Q. Chen, Y.-J. Hirabayashi, H. Jiang, D.-R. Kameno, S. Liu, X.	Shen Shanghai Observatory ISAS Shanghai Obs. NAOJ Urumqi Observatory	Probing the center of activity in a CSS superluminal quasar 3C138		13,6,4,2,1	20	13.0	
BS093	Smith, K.W. Benz, A.O. Conway, J. Guedel, M. Montmerle, T. Pestalozzi, M.	Zurich Zurich Onsala PSI Villigen Saclay Onsala	Resolving the radio jet of the x-ray emitting protostar YLW15		6,4	14,24	16.0	
BZ027	Zhang, H. Gabuzda, D. Jin, C. Nan, R.	Beijing Ast. Obs. JIVE Beijing Ast. Obs. Beijing Ast. Obs.	Polarimetric studies of the extended VLBI structures of four CSS sources		20	14	16.25	
BZ028	Gabuzda, D. Jin, C. Nan, R. Zhang, H.	JIVE Beijing Ast. Obs. Beijing Ast. Obs. Beijing Ast. Obs.	Parsec-scale rotation measure distributions of three compact CSS sources		6,4	5,16	16.0	
W069	Zensus, J.A. Lobanov, A.P. Unwin, S.C. Cohen, M.H.	MPIfR MPIfR JPL Caltech	Jet in quasar 3C345		18, 6 with GO, EB, Y27	28, 29	19.5	

## VLBA Utilization Report August 2001

Program	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
W401	Frey, S. Gurvits, L. Gabuzda, D.C. Altshuler, D.R. Salter, C.J. Perillat, P. Aller, H.D. Aller, M.F. Hirabayashi, H. Davis, M.M.	FOMISQO JIVE JIVE Arecibo Arecibo Arecibo Michigan Michigan ISAS SETI Inst	Structural variability in the brightest AGN: AO 0235+164		6, 18 With AR, GO, TI, UD, AT	2, 3	20.5
W420	Asada, K. Kameno, S. Inoue, M. Horiuchi, S. Shen, Z.Q. Gabuzda, D.C.	NAO NAO-Nobeyama NAO-Nobeyama NAO ISAS JIVE	Third epoch observation of 3C84		6 with EB, Y27	21	15.0
W513	Kameno, S. Sawada-Satoh, S. Inoue, M. Shen, Z.-Q. Wajima, K. Staff	NAO-Nobeyama ISAS NAO-Nobeyama ISAS ISAS NRAO	FF Absorption in NGC 1052		18 with AT	7	9.0
			Maintenance				114.0

The average downtime was 16.5 hours (5%)

Actual observing time was 315.0 hours

The VLBA was scheduled 75.0% of the time 557.5 hours of a possible 744 hours

Astronomical Observations = 45.0% (331.5 hours)  
 Tests and Calibrations = 20.0% (147.0 hours)  
 Maintenance = 11.0% ( 79.0 hours)

## VLBA Utilization Report July 2001

Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BA051	Aller, H. Aller, M. Homan, D.C. Hughes, P.A. Roberts, D.H. Wardle, J.F.C.	Michigan Michigan Brandeis Michigan Brandeis Brandeis	Oblique shocks in jets: evolution of Parsec-scale structures of sources with rapidly variable polarization		4,2,1,.7	01	.75
BB129	Brogan, C. Claussen, M.J. Goss, M.	NRAO-Socorro NRAO-Socorro NRAO-Socorro	VLBA Zeeman Observations of OH masers associated with SNRs	20	13, 14, 15	12.50	
BB130	Bower, G. Backer, D. Falcke, H. Goss, M. McGary, R. Zhao, J.-H.	Calif.-Berkeley Calif.-Berkeley MPIfR NRAO-Socorro Cfa Cfa	Detecting outflow and expansion in Sagittarius A*		1, .7	12,29	13.50
BC114	Clark, T. Ma, C. Johnston, K. Fey, A. Gordon, D. Gaume, R. Boboltz, D. Kingham, K. Vandenbergh, N. Himwich, E. Shaffer, D. Fomalont, E. Walker, C.	NASA-GSFC NASA-GSFC USNO USNO Raytheon-GSFC USNO USNO USNO NVI-GSFC NVI-GSFC Radiometrics NRAO-CV NRAO-Socorro	VLBA Geodesy/Astrometry observations for 2001		3.6 With WfHhGcKkWz TsMcNyGgMa	5 Scheduled as RDV29	25.0
BC116	Chatterjee, S. Cordes, J.M. Goss, M. Fomalont, E.B. Benson, J. Lazio, T. Arzoumanian, Z.	Cornell Cornell NRAO-Socorro NRAO-CV NRAO-Socorro NRL NASA-GSFC	High frequency VLBA astrometry of pulsars	6	18,19	12.0	
BE024	Edwards, P.G. Horan, D. Piner, G.	IAS Whipple Observatory Whittier College	New TeV gamma-ray source H1426+428	4	4	12.25	
BG113	Gomez, J.L. Marscher, A.P. Marchenko-Jorstad, Alberdi, A. Agudo, I. Marti, J.M. Aloy, M.A. Ibanez, J.M.	IAA Boston University Boston University IAA IAA U. Jaen Valencia Valencia	Monitoring superluminal components in 3C120		0.7, 1.3, 2	7	12.0
BG118	Greenhill, L. Chandler, C.J. Diamond, P. Moran, J.M. Reid, M.J.	Cfa NRAO Jodrell Bank Cfa Cfa	SiO maser motions in Orion BN/KL		0.7 With Y1	22	8.0
BH077	Hachisuka, K. Fujisawa, K. Honma, M. Imai, H. Kameya, K. Manabe, S. Miayoshi, M. Mochizuki, N. Nisio, M. Omodaka, T. Sasao, T. Sawada-Satoh, S.	NAO NAO NAO NAO NAO NAO Graduated University Kagoshima Kagoshima NAO NAO	Detection of an annual parallax of water masers in W3 (OH)		1	12	4.25
BH087	Ho, P. Anglada, G. Canto, J. Curriel, S. Garay, G. Gomez, J.F. Greenhill, L.G. Patel, N. Rodriguez, L.F. Sollins, P.K. Torrelles, J.M.	CFA IAA UNAM Chile UNAM LAEFF Cfa Cfa UNAM Cfa CSIC	Tracking a "Puff" of spherically symmetric ejection in Cepheus A		1	11,30	24.50

## VLBA Utilization Report July 2001

Prog#	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BI018	Iguchi, S. Fujisawa, S. Inoue, M. Kameno, S.	NAO NAO NAO NAO	An extremely Doppler-boosting source: OT081		4,2,1,.7	3	12.25
BK076	Kurayama, T. Sasao, T.	NAO NAO	Parallax measurement of Miras for Period-Luminosity Relation	1		20	5.25
BM146	Miyoshi, M. Deguchi, S. Imai, H. Nakashima, J.	NAO Nobeyama NAO Graduate University	Precise proper-motion measurement of the SiO maser sources at the Galactic Center relative to Sgr A*	7		31	7.25
BM158	Muno, M.P. Dhawan, V. Mirabel, I.F. Rodriguez, L.F.	MIT NRAO-Socorro Saclay UNAM	Jet evolution in GRS 1915+105 with VLBA and RXTE		13,4,2	16,17,18	15.75
BP082	Pyatunina, T. Aller, M.F. Aller, H.D. Gabuzda, D.C. Jorstad, S.G. Terasranta, H.	IPA Michigan Michigan JIVE Boston Metsahovi	Multi-frequency polarization imaging of blazars with cyclic activity		4,2,1,.7	21	24.25
BP083	Polatidis, A. Bondi, M. Dellacasa, D. Marcha, M.	Onsala IRA IRA Lisbon	Estimating kinematical ages of compact symmetric objects from the 200 mJy flat spectrum radio source sample	6		14	20.0
BS090	Shepherd, D. Claussen, M.J. Kurtz, S.	NRAO-Socorro NRAO-Socorro UNAM	Water masers in the massive accretion disk of G192.16	1		2	6.25
BW054	Walker, C. Wrobel, J.	NRAO-Socorro NRAO-Socorro	Jet collimation regions		.7	9	9.0
V050	Kollgaard, R.I.	Fermi	Subparsec scale structure of x-ray selected BL Lacertae objects		18	24	4.0
W312	Preston, R.A. Pearson, T.J. Readhead, A.C.S. Lister, M.L. Piner, B.G. Tingay, S.J. Hirabayashi, H. Kobayashi, H. Inoue, M.	JPL Caltech Caltech NRAO-CV JPL ATNF ISAS NAO NAO	Completing the Pearson-Readhead survey from space		6	8	10.0
W425	Lister, M.L. Murphy, D.W. Preston, R.A.	NRAO-CV JPL JPL	High fidelity VSOP imaging of GPS sources		6	1	11.0
W513	Kameno, S. Sawada-Satoh, S. Inoue, M. Shen, Z.-Q. Wajima, K.	NAO ISAS NAO ISAS ISAS	FF Absorption in NGC 1052		6	31	9.0
	Staff	NRAO	Maintenance				234.0

The average downtime was 6.0 hours (2.3%)

Actual observing time was 252.75 hours

The VLBA was scheduled 77% of the time 554.8 hours of a possible 720 hours

Astronomical Observations = 36.0%	(258.75 hours)
Tests and Calibrations = 20.0%	(141.6 hours)
Maintenance = 21.0%	(154.5 hours)

## VLBA Utilization Report June 2001

Prog#	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BA051	Aller, H.D. Aller, M.F. Homan, D.C. Hughes, P.A. Roberts, D.H. Wardle, J.F.C.	Michigan Michigan Brandeis Michigan Brandeis Brandeis	Oblique shocks in jets: the evolution of Parsec-scale structures of sources with rapidly variable polarization		4,2,1.7	30	23.5
BC112	Costa, M. Beasley, A.J. Ellingsen, S.	Tasmania OVRO Tasmania	44 GHz Class I maser in a ring?	7	11		10.25
BD069	Diamond, P.J. Kemball, A.J.	Jodrell Bank NRAO-Socorro	TX Cam: the final curtain		0.7 With Y1	24	8.0
BG113	Gomez, J.L. Marscher, A.P. Marchenko-Jorstad, Alberdi, A. Agudo, I. Marti, J.M. Aloy, M.A. Ibanez, J.M.	IAA Boston Boston IAA IAA U. Jaen Valencia Valencia	Monitoring superluminal components in 3C120		0.7, 1.3, 2	8	12.0
BG118	Greenhill, L. Chandler, C.J. Diamond, P. Moran, J.M. Reid, M.J.	CfA NRAO Jodrell Bank CfA CfA	SiO maser motions in Orion BN/KL		0.7 With Y1	22	8.0
BG119	Guedel, M. Smith, K. Beasley, A. Audard, M. Brinkman, A. Mewe, R. Savin, D. Benz, A.O.	Paul Scherrer ETH Caltech-OVRO Paul Scherrer Utrecht Utrecht Columbia ETH	Observations of RS CVn stars with XMM		3.6, 6 With Y27	3	12.0
BK076	Kurayama, T. Sasao, T.	NAO NAO	Parallax measurement of Miras for Period-luminosity relation	1	4,28		9.25
BL086	Lobanov, A.P. Ros, E. Zensus, J.A.	MPIfR MPIfR MPIfR	Monitoring of the ongoing flare in the VLBI core of 30345		2,1,.7	25	3.25
BL104	Lobanov, A.P. Roland, J. Ros, E. Zensus, J.A.	MPIfR IAP MPIfR MPIfR	Cross-band monitoring of a flare in the VLBI core of 30345		2,1,7	19	4.25
BM159	Momjian, E. Romney, J.D. Carilli, C. Troland, T.	Kentucky/NRAO NRAO-Socorro NRAO-Socorro Kentucky	VLBA observations of the ultra luminous infrared galaxies		18 With Y27	4	12.0
BM160	McKean, J.P. Browne, I.W.A. Jackson, N.J. Rusin, D. Wilkinson, P.N.	Jodrell Bank Jodrell Bank Jodrell Bank Pennsylvania Jodrell Bank	Structures of flat-spectrum radio sources at low flux-densities	4	23		15.25
BM162	Marscher, A.P. Aller, M.f. Jorstad, S.G. McHardy, I.M.	Boston U. U. Michigan Boston U. Southampton	Relationship between x-ray flares and superluminal ejections in blazars		1, .7	21	12.25
BR071	Rather, M.I. Bartel, N. Bietenholz, M.F. Lebach, D.E. Lestrade, J-F. Ransom, R.R. Shapiro, I.I.	CfA York York CfA Meudon York U. Cfa	Astrometry of HR 8703 in 2001 for the gravity probe-b mission		2, 3.6, 6 With RoGoTi+Y27	29	18.5
BS085	Stanghellini, C. Baum, S.A. Dallacasa, D. Fanti, R. Fanti, C. O'Dea, C.P. Perez-Torres, M.	CNR STScI Bologna Bologna Bologna STScI CNR	VLBA observations of GHz-peaked spectrum radio sources		20,6,4,2,1	9	8.25
BS087	Sudou, H. Iguchi, S. Murata, Y. Taniguchi, Y.	Tohoku Univ. NAO ISAS Tohoku Univ.	Phase-referencing VLBI observations of 3C 66B		13,4,1	25	10.5

## VLBA Utilization Report June 2001

Program	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BT057	Trigilio, C. Buemi, C.S. Leone, F. Leto, P. Umana, G.	IRA IRA IRA IRA IRA	VLBI observations of the magnetic chemically peculiar star CU Virginis		4	4	10.75
BZ026	Zavala, R. Taylor, G.	NMSU NRAO-Socorro	Faraday rotation measure study of the AGN environment		4,2	20	24.0
GB042	Bartel, N. Rupen, M. Bietenholz, M. Beasley, A.J. Graham, D.A. Altunin, V.I. Venturi, T. Umana, G. Cannon, W.H. Conway, J.E.	York NRAO-Socorro York Caltech-OVRO MPIfR JPL Bologna Noto York Onsala	SN 1993J and the core jet counterjet in M81		6 With EbNtWbTrMcOn+RoGo+Y27	9	18.0
GG038	Giovannini, G. Feretti, L. Venturi, T. Cotton, W.D. Lara, L. Taylor, G.B.	Bologna Bologna Bologna NRAO-CV IAA NRAO-Socorro	Symmetrically expanding FRI radio galaxy 3C338		2, 3.6 With EbWbNtMcOn+RoGo+Y27	2	11.0
GG046	Gabuzda, D.C. Cawthorne, T.V. Garnich, N.N.	JIVE Lancashire Sternberg	Investigating IDV with multi-frequency global polarization obs		3.6, 6 With EbWbNtTrJbOn	1	13.5
GG047	Garrington, S. Hoare, M. van Langevelde, H.J. Gunn, A. Meaburn, J.	Jodrell Bank Leeds JIVE Jodrell Bank Manchester	PMS star theta 1 Orionis A		6 With EbNtWbTrMcOnJb	7	10.0
GM044	McDonald, A.R. Pedlar, A. Muxlow, T.W.B. Diamond, P.J. Wills, K.A. Garrett, M.A. Wilkinson, P.N.	Jodrell Bank Jodrell Bank Jodrell Bank Jodrell Bank Sheffield U. JIVE Jodrell Bank	The compact, ultraluminous source in M82		6 With EbNtWbTrMcOnJb+Y27	6	12.0
GR016	Ros, E. Marcaide, J.M. Guirado, J.C. Perez-Torres, M.A. Lara, L. Alberdi, A.	MPIfR Valencia Valencia Bologna IAA IAA	Proper motions in quad gravitational lenses		3.6 With EbMcNt+RoGo+Y27	2	14.0
RO1C1			Formatter test	HN	6	5	2.5
W058	King, E.A. Jauncey, D. Reynolds, J. Tzioumis, A. McCulloch, P.M. Costa, M.E. Lovell, J.E.J. Preston, R. Murphy, D.	ATNF ATNF ATNF ATNF Tasmania Tasmania ATNF JPL JPL	Imaging of strong GPS Sources	M	18 correlated at Mitaka	10	7.5
W402	Murphy, D.W. Lister, M. Preston, R. Hirabayashi, H. Edwards, P. Tingay, S.	JPL NRAO-CV JPL ISAS ISAS ATNF	High ecliptic latitude monitoring program		6	28	8.0
W409	Gabuzda, D.C. Pushkarev, A.B. Cawthorne, T.V.	JIVE Lebedev Lancashire	Polarization observations of BL Lac objects		6 with EB	18	5.0

## VLBA Utilization Report June 2001

Program	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
W512	Jauncey, D.	ATNF	Scattering in IDV and core-dominated sources		18, 6	24, 26	22.0
	Lovell, J.E.J.	ATNF					
	Tingay, S.J.	ATNF					
	Kedziora-Chudczer,	AAO					
	Reynolds, J.E.	ATNF					
	Tzioumis, A.K.	ATNF					
	Macquart, J.-P.	RCFIA					
	McCulloch, P.	Tasmania					
	Dodson, R.	Tasmania					
	Hirabayashi, H.	ISAS					
	Edwards, P.G.	ISAS					
	Bignall, H.E.	Adelaide					
	Nicolson, G.D.	Hartebeesthoek					
	Staff	NRAO	Maintenance				207.0

The average downtime was 6.4 hours (2.0%)

Actual observing time was 316.35 hours

The VLBA was scheduled 80.0% of the time 574.25 hours of a possible 720 hours

Astronomical Observations = 45.0% (322.75 hours)

Tests and Calibrations = 9.0% ( 64.5 hours)

Maintenance = 26.0% (187.0 hours)

## VLBA Utilization Report May 2001

Prog#	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BB121	Bower, G.C.	Calif.-Berkeley	Probing small scale structure in galactic molecular gas with the VLBA at 3mm		7,3	16	10.0
BB136	Brisken, W.F. Golden, A. Goss, M. Thorsett, S.	Princeton Galway NRAO-Socorro UC-Santa Cruz	Parallax for PSR B0656+14 and measuring the radius of a neutron star		18	21	5.0
BC114	Clark, T. Ma, C. Johnston, K. Fey, A. Gordon, D. Gaume, R. Boboltz, D. Kingham, K. Vandenberg, N. Himwich, E. Shaffer, D. Fomalont, E. Walker, C.	NASA-GFSC NASA-GSFC USNO USNO Raytheon-GSFC USNO USNO USNO NVI-GSFC NVI-GSFC Radiometrics NRAO-CV NRAO-Socorro	VLBA Geodesy/Astrometry observations for 2001		3.6 Scheduled as RDV28	9	25.0
BD069	Diamond, P.J. Kemball, A.J.	Jodrell Bank NRAO-Socorro	TX Cam: the final curtain		0.7 With Y1	19	8.0
BD073	Doeleman, S.S. Attridge, J. Lonsdale, C.	Haystack Haystack Haystack	Magnetic fields in environments of SiO masers		7,3	24	8.25
BF067	Fassnacht, C.	STScI	Structure in gravitational lens CLASS B1608+656		3.6 With EB	1	12.0
BF069	Fish, V.L. Argon, A. Reid, M.J.	CfA CfA CfA	Mapping magnetic fields in massive star forming regions		20	26,28	19.0
BG103	Gabuzda, D.C. Pushkarev, A.B.	JIVE ASC	Unique parsec-scale properties of the BL Lac object 0820+225		6,4,2	11	14.25
BG113	Gomez, J.L. Marscher, A.P. Marchenko-Jorstad, Alberdi, A. Agudo, I. Martí, J.M. Aloy, M.A. Ibanez, J.M.	IAA Boston Boston IAA IAA U. Jaen Valencia Valencia	Monitoring superluminal components in 3C120		0.7, 1.3, 2 With Y1	7	12.0
BG114	Gabuzda, D.C. Cawthorne, T.V. Pushkarev, A.B.	JIVE Lancashire ASC	Toroidal B fields in BL Lac objects		6,4,2,1	19	9.25
BG118	Greenhill, L. Chandler, C.J. Diamond, P. Moran, J.M. Reid, M.J.	CfA NRAO Jodrell Bank CfA CfA	SiO maser motions in Orion BN/KL		0.7 With Y1	18	8.0
BH077	Kachisuka, K. Fujisawa, K. Honma, M. Imai, H. Kameya, K. Manabe, S. Miyoshi, M. Mochizuki, N. Nisio, M. Omodaka, T. Sasao, T. Sawada-satoh, S.	Graduate University NAO NAO NAO NAO NAO Graduate University Kagoshima University Kagoshima University NAO NAO	Detection of an annual parallax of water masers in W3 (OH)		1	12	4.25
BH080	Hough, D.H.	Trinity University	Variability in the nuclei of lobe-dominated quasars		4	23	5.75
BH081	Healy, K.R. Claussen, M. Hester, J.	Arizona State NRAO-Socorro Arizona State Univer	Protostars and water masers in M16, the Eagle Nebula		1	6	4.0
BJ038	Junor, B.	UNM	Core of Virgo A at 3mm		7, 3	1	11.5
BK076	Kurayama, T. Sasao, T.	NAO NAO	Parallax measurement of Miras for period-luminosity relation		1	13	5.0
BL086	Lobanov, A.P. Ros, E. Zensus, J.A.	MPIfR MPIfR MPIfR	Monitoring the ongoing flare in the VLBI core of 3C345		2,1,.7	8	3.25

## VLBA Utilization Report May 2001

Prog#	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BL098	Lovell, J.E.J. Edwards, P.G. Jauncey, D.L. Jones, D.L. Reynolds, J.E. Tzioumis, A.K. Wieringa, M.H.	ATNF ISAS ATNF JPL ATNF ATNF ATNF	Improving the precision of H <sub>o</sub> measured from gravitational lens 1830-211		4,2,1	4	10.5
BL101	Leahy, J.P. Spencer, R.E. Taylor, G.B. Harris, D.E.	Jodrell Bank Jodrell Bank NRAO-Socorro CfA	Hotspots of 3C 295 at 327 MHz		90 With Y1	28	15.0
BM145	Mantovani, F. Junor, W. Saikia, D.J. Salter, C.J.	Bologna New Mexico NCRA-Pune Arecebo	Polarization and rotation measure in CSS QSOs		3.6, 6 With Y1	6	12.0
BM146	Miyoshi, M. Deguchi, S. Imai, H. Nakashima, J.	NAO Nobeyama NAO Graduate Univ for Ad	Precise proper-motion measurement of the SiO maser sources at the Galactic Center relative to Sgr A*		7	16	8.5
BM152	Marecki, A. Spencer, R.E.	Torun Jodrell Bank	Study of very compact steep spectrum objects - part II		20	5	11.0
BM154	Marvel, K. Alcolea, J. Boboltz, D. Bujarrabal, V. Colomer, F. Desmurs, J.F. Diamond, P.J. Kemball, A.	AAS OAN USNO OAN OAN OAN Jodrell Bank NRAO-Socorro	Spatial distribution of SiO masers in AGB stars at 43 and 86 GHz		7,3	9	8.25
BM159	Monjian, E. Carilli, C. Romney, J.D. Troland, T.	NRAO-Socorro NRAO-Socorro NRAO-Socorro Kentucky	VLBA observations of the ultra-luminous infrared galaxies		20	13	1.0
BM162	Marscher, A.P. Aller, M.F. Jorstad, S.G. McHardy, I.	Boston U. Michigan Boston U. Southampton	Relationship between x-ray flares and superluminal ejections in blazars		1,.7	10	12.25
BR072	Reynolds, C. Cawthorne, T.V. Gabuzda, D.C. Pushkarev, A.	JIVE Lancashire JIVE ASC	Non-uniform Faraday rotation in BL Lac objects		6,4,2,1	5	18.5
BS085	Stanghellini, C. Baum, S.A. Dallacasa, D. Fanti, R. Fanti, C. O'Dea, C.P. Perez-Torres, M.	CNR STScI Bologna Bologna Bologna STScI CNR	VLBA observations of GHz-peaked spectrum radio sources		20,6,4,2,1	13	11.25
BS090	Shepherd, D. Claussen, M. Kurtz, S.	NRAO-Socorro NRAO-Socorro UNAM	Water masers in the massive accretion disk of G192.16		1	4	6.0
BS091	Sahai, R. Claussen, M.J. Morris, M.	JPL NRAO-Socorro UCLA	Imaging the high velocity H20 jet in water-fountain nebula, IRAS 16342-3814		2,1	7	12.0
BT056	Taylor, G. Vermeulen, R.	NRAO-Socorro NRA	Measuring absolute motions in the bi-directional jets of 1946+708		4,2	17	10.75
BV040	Vlemmings, W.H.T. Baudry, A. Diamond, P.J. Habing, H.J. Schilizzi, R.T. van Langevelde, H.J.	Leiden Bordeaux Jodrell Bank Leiden JIVE JIVE			20	27	12.0
BV042	Gabuzda, D.C. Venturi, T. Cawthorne, T.V. Dallacasa, D. Mantovani, F. Pushkarev, A.B.	JIVE CNR Lancashire Bologna CNR ASC	Second epoch monitoring of gamma-ray loud quasars		4,1	17	14.0
BV042	Gabuzda, D.C. Venturi, T. Cawthorne, T.V. Dallacasa, D. Mantovani, F. Pushkarev, A.B.	JIVE CNR Lancashire Bologna CNR ASC			4,1	17	14.0

## VLBA Utilization Report May 2001

Program	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BW055	Wiik, K. Savolainen, T. Tornikoski, M. Valtaoja, E.	Tuorla Tuorla Metsahovi Tuorla	Multi-frequency observations of new high peaked GPS sources		2,1,.7	12,14	18.50
GG046	Gabuzda, D.C. Cawthorne, T.V. Garnich, N.N.	JIVE Lancashire Sternberg	Investigating IDV with multi-frequency global polarization obs		3.6, 6 With EbBbNtTrJb On	31	10.5
GS017	Spencer, R.E. McCormick, D.G. Stirling, A. Garrett, M. Fender, R.	Jodrell Bank Jodrell Bank Lancashire JIVE Amsterdam	Jet precession in Cygnus X-1		3.6 With EbBbNtYbOn Mc+Y27	31	8.0
W313	Preston, R.A. Lister, M.L. Murphy, D.W. Piner, B.G. Jones, D.L. Meier, D.L. Tingay, S.J. Hirabayashi, H. Murata, Y. Kobayashi, H. Inoue, M.	JPL NRAO-CV JPL JPL JPL JPL ATNF ISAS ISAS NAO NAO	High brightness objects in the Pearson-Readhead AGN Survey		6, 18 With GO, EB	20, 21	24.0
W416	Gwinn, C.R. Reynolds, J. Jauncey, D. Quick, J. McCulloch, P.	Calif.-Santa Barbara ATNF ATNF Hartebeesthoek Tasmania	Structure of the Vela pulsar's radio emission at 5 GHz	KM	6 MK, KP only	14, 15	6.0
W424	Edwards, P.G. Hirabayashi, H. Murata, Y. Asaki, Y. Wajima, K.	ISAS ISAS ISAS ISAS ISAS	Three 'missing' 2cm survey sources		6, 18	25	12.0
	Staff	NRAO	Maintenance				114.0

The average downtime was 24.0 hours (6.0%)

Actual observing time was 382.5 hours

The VLBA was scheduled 83.0% of the time 608 hours of a possible 744 hours

Astronomical Observations	= 55.0%	(406.5 hours)
Tests and Calibrations	= 19.0%	(133.5 hours)
Maintenance	= 9.0%	( 68.0 hours)

## VLBA Utilization Report April 2001

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Prog#	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BB121	Bower, G.C.	Calif.-Berkeley	Probing small scale structure in galactic molecular gas with the VLBA at 3mm		3	13,24	20.0
BB132	Brunthaler, A. Falcke, H. Henkel, C. Reid, M.	CfA MPIR MPIR CfA	First epoch observations for extragalactic proper motions in the local group with the VLBA		1	5,12	20.25
BC111	Cotton, W.D. Mennesson, B. Vlemmings, W. Perrin, G. Coude du Foresto, V Chagnon, G. Diamond, P.J. van Langevelde, H.J Ridgway, S. Morel, S. Traub, W. Carleton, N. Lacasse, M. Waters, R.	NRAO-CV Leiden Leiden Meudon Paris Obs. Paris Obs. Jodrell Bank JIVE NOAO CfA CfA CfA CfA Amsterdam	Bright O-rich Mira stars		0.7 With Y1	29	18.0
BC115	Chatterjee, S. Cordes, J.M. Goss, M. Fomalont, E. Beasley, A. Benson, J. Lazio, T.J. Arzoumanian, Z.	Cornell Cornell NRAO-Socorro NRAO-CV OVRO NRAO-Socorro NRL NASA-GSFC	Neutron star kinematics: gated VLBA pulsar astrometry		18	11, 16	24.0
BD069	Diamond, P.J. Kemball, A.J.	Jodrell Bank NRAO-Socorro	TX Cam: the final curtain		0.7 With Y1	15	8.0
BD071	Doeleman, S.S. Predmore, C.R.	Haystack U. Mass	Search for overlap of maser emission from Two SiO Isotopes		7,3	25	8.25
BE022	Edwards, P. Dingus, B.	ISAS Wisconsin	Two high energy GeV gamma-ray sources		6,4	20	8.0
BG113	Gomez, J.L. Marscher, A.P. Marchenko-Jorstad, Alberdi, A. Agudo, I. Marti, J.M. Aloy, M.A. Ibanez, J.M.	IAA Boston Boston IAA IAA U. Jaen Valencia Valencia	Monitoring superluminal components in 3C120		0.7, 1.3, 2	1	12.0
BG117	Gabuzda, D. Agudo, I. Cawthorne, T.V. Gomez, J.L.	JIVE IAA, Granada Lancashire IAA, Granada	Clues to unusual bending in 0735+178		4,2,1	28	10.0
BG118	Greenhill, L. Chandler, C.J. Diamond, P. Moran, J.M. Reid, M.J.	CfA NRAO Jodrell Bank CfA CfA	SiO maser motions in Orion BN/KL		0.7 With Y1	16	8.0
BK076	Kurayama, T. Sasao, T.	NAO NAO	Parallax measurement of Miras for period-luminosity relation		1	3,13	10.25
BL099	Langston, G.I. Avruch, I. Minter, A. Perlman, E.S.	NRAO-GB NFRA NRAO-GB STScI	Monitoring PKS 1413+135 for superluminal motion and spectral evolution		6,4,2,	1,30	16.50
BM136	Marscher, A.P. Cawthorne, T.V. Stirling, A. Gear, W.K. Stevens, J.A. Marchenko, S.G. Lister, M.L. Gabuzda, D.C. Gomez, J.L. Smith, P. Forster, J.R. Yurchenko, A.V.	Boston Lancashire Lancashire Cardiff MRAO Boston NRAO-CV JIVE IAA KPNO Calif.-Berkeley St. Petersburg	Bright mm sources		0.7	14	24.0
BM139	Minier, V. Booth, R. Ellingsen, S. Norris, R.	Onsala Onsala Tasmania ATNF	Proper motion studies of 12.2 GHz methanol masers		2	2	6.50

## VLBA Utilization Report April 2001

Prog#	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BP078	Phillips, R.B. Attridge, J.M. Boboltz, D. Doeleman, S.S. Lonsdale, C.J. Sivakoff, G.R.	Haystack Haystack USNO Haystack Haystack U. Virginia	3mm VLBA observations of the bright SiO giant R Cas		3	27	11.25
BR071	Ratner, M.I. Bartel, N. Bietenholz, M.F. Lebach, D.E. Lestrade, J-F. Ransom, R.R. Shapiro, I.I.	Cfa York York Cfa Meudon York Cfa	Astrometry of HR 8703 in 2001 for the gravity probe-b mission		2, 3.6, 6 With EB, Y27, RoGoTi	1	2.5
BS085	Stanghellini, C. Baum, S.A. Dallacasa, D. Fanti, R. Fanti, C. O'Dea, C.P. Perez-Torres, M.	CNR STSci Bologna Bologna Bologna STSci CNR	VLBA observations of GHz-peaked spectrum radio sources		20,6,4,2,1	30	11.25
BS090	Shepherd, D. Claussen, M. Kurtz, S.	NRAO-Socorro NRAO-Socorro UNAM	Water masers in the massive accretion disk of G192.16	1	13		6.25
BW050	Wrobel, J.M. Fassnacht, C. Myers, S.T. Taylor, G.B.	NRAO-Socorro STSci NRAO-Socorro NRAO-Socorro	FIRST Sources in the NOAO Deep Wide Field J1432+3416	6	26		6.50
CA002	Attridge, J.M. Homan, D.C. Wardle, J.F.C. Phillips, R.B. Doeleman, S.S.	Haystack Brandeis Brandeis Haystack Haystack	3mm polarization of AGN		0.3	6, 8	18.5
CD019	Doeleman, S. Rogers, A.E.E. Bower, G. Backer, D. Wright, M.	Haystack Haystack Calif.-Berkeley Calif.-Berkeley Calif.-Berkeley	Structure of Sgr A*		0.3	8, 9	20.0
CK013	Krichbaum, T.P. Zensus, J.A. Graham, D.A. Witzel, A. Romney, J.D.	MPIfR MPIfR MPIfR MPIfR NRAO-Socorro	3C 273 and 3C 279		0.3	6	14.5
CK014	Klare, J. Krichbaum, T.P. Zensus, J.A. Ros, E. Lobanov, A.P.	MPIfR MPIfR MPIfR MPIfR MPIfR	3C 345		0.3	7	18.5
RDV027	Clark, T. Fey, A. Gordon, D. Johnston, K. Ma, C.	GSFC USNO GSFC USNO GSFC	VLBA Geodesy/Astrometry observations for 2001		3.6	9	24.5
W330	Kameno, S. Wajima, K. Zhi-Qiang, S. Inoue, M. Sawada-Satoh, S.	NAO-Nobeyama ISAS ISAS NAO-Nobeyama ISAS	Complementary multi-frequency GPS survey		6	19, 21	17.0
W410	Kameno, S. Shen, Z.-Q. Inoue, M. Fujisawa, K. Wajima, K.	NAO-Nobeyama ISAS NAO-Nobeyama NAO ISAS	Second epoch observations of 3C 380		6, 18 With EB, RO, GO	24, 25	20.0
W418	Gurvits, L.I. Dennett-Thorpe, J. de Bruyn, A.G.	JIVE Groningen NFRA	Extremely variable IDV source J1819+3845		6 With WB, Y27	17	8.0
W424	Edwards, P.G. Hirabayashi, H. Murata, Y. Asaki, Y. Wajima, K.	ISAS ISAS ISAS ISAS ISAS	Three 'missing' 2cm survey sources		6	2	10.0

## VLBA Utilization Report April 2001

Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
W504	Murata, Y.	ISAS	Highest visibility sources		6, 18	14, 28, 30	11.0
	Edwards, P.G.	ISAS					
	Hirabayashi, H.	ISAS					
	Wajima, K.	ISAS					
	Fomalont, E.B.	NRAO-CV					
	Frey, S.	FOMISGO					
	Doi, A.	Tokyo					
	Staff	NRAO	Maintenance				312.0

The average downtime was 12.0 hours (2.9%)

Actual observing time was 390.25 hours

The VLBA was scheduled 78% of the time 560.75 hours of a possible 720 hours

Astronomical Observations = 56.0% (402.25 hours)  
 Tests and Calibrations = 09.0% ( 63.00 hours)  
 Maintenance = 13.0% ( 95.50 hours)

## VLBA Utilization Report March 2001

Program	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BA048	Augusto, P. Edge, A. Gonzalez-serrano, I. Perez-Fournon, I.	Madeira Durham Cantabria Tenerife	Core identification in large compact symmetric objects and medium symmetric objects		20,6	11	11.25
BB121	Bower, G.	Berkeley	Probing small scale structure in galactic molecular gas with the VLBA at 3mm		3	29	10.25
BB129	Brogan, C. Claussen, M. Goss, M.	NRAO-Socorro NRAO-Socorro NRAO-Socorro	VLBA Zeeman observations of OH masers associated with SNRs		20	9,10,14	12.0
BB132	Brunthaler, A. Falcke, H. Henkel, C. Reid, M.	CfA MPIR, Bonn MPIR, Bonn CfA	First epoch observations for extragalactic proper motions in the local group with the VLBA		1	27,28	20.25
BB133	Biggs, A.D. Browne, I.W.A. Koopmans, L. Norbury, M. Rusin, D.	Jodrell Bank Jodrell Bank Caltech Jodrell Bank Pennsylvania	Search for superluminal motion in two CLASS gravitational lens systems		20,6,4	18	9.25
BC104	Chatterjee, S. Cordes, J.M. Goss, M. Fomalont, E.B. Beasley, A.J. Benson, J. Lazio, T.J.W. Arzoumanian, Z.	Cornell Cornell NRAO-Socorro NRAO-CV OVRO NRAO-Socorro NRL NASA-GSFC	High frequency VLBA pulsar astrometry		6	25	6.0
BC114	Clark, T. Ma, C. Johnston, K. Fey, A. Gordon, D. Gaume, R. Boboltz, D. Kingham, K. Vandenberg, N. Himwich, E. Shaffer, D. Fomalont, E. Walker, C.	NASA-GSFC NASA-GSFC USNO USNO Raytheon-GSFC USNO USNO USNO NVI-GSFC NVI-GSFC Radiometrics NRAO-CV NRAO-Socorro	VLBA Geodesy/Astrometry observations for 2001		3.6 Scheduled as RDV26	12	25.0
BD069	Diamond, P.J. Kemball, A.J.	Jodrell Bank NRAO-Socorro	TX Cam: the final curtain		0.7 With Y1	16	8.0
BG099	Gomez, J.L. Agudo, I. Marscher, A.P. Marchenko, S. Alberdi, A. Garcia-Miro, C. Cawthorne, T.	IAA IAA Boston Boston IAA IAA Lancashire	Polarization of sources with compact stationary components		0.7, 1.3, 2	23	18.0
BG113	Gomez, J.L. Marscher, A.P. Marchenko-Jorstad, Alberdi, A. Agudo, I. Marti, J.M. Aloy, M.A. Ibanez, J.M.	IAA Boston Boston IAA IAA U. Jaen Valencia Valencia	Monitoring superluminal components in 3C120		0.7, 1.3, 2	5	12.0
BG118	Greenhill, L. Chandler, C.J. Diamond, P. Moran, J.M. Reid, M.J.	CfA NRAO Jodrell Bank CfA CfA	SiO maser motions in Orion BN/KL		0.7 with Y1	19	8.0
BI021	Inoue, M. Asada, K. Fujisawa, K. Kameno, S. Mutou, M.	NAO NAO NAO NAO NAO	Detection of asymmetric polarization features in GPS radio sources		6,4,2	18	7.25
BK068	Kellermann, K.I. Cohen, M. Vermeulen, R. Zensus, A.	NRAO-CV Caltech NFRA MPIfR	Kinematics of quasars and AGN		2	4,15	48.0
BK076	Kurayama, T. Sasao, T.	NAO NAO	Parallax measurement of Miras for period-luminosity relation		1	3	5.0

## VLBA Utilization Report March 2001

Prog#	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BK083	Kondratko, P.T. Greenhill, L.J. Moran, J.M.	Harvard CfA CfA	Does starburst/water megamaser galaxy NGC 3079 have an AGN?		1.3, 2, 3.6, 6 With EB, Y27	23, 24	24.0
BL095	Lister, J. Piner, B.G.	JPL JPL	Completion of the Pearson-Readhead AGN VLBI survey using phase referencing		6	17	20.0
BM152	Marecki, A. Spencer, R.	Torun Jodrell Bank	Study of very compact steep spectrum objects - Part II		20	30	11.25
BM153	Marr, J. Dennett-Thorpe, J. Polatidis, A.	Union College Kapteyn Onsala	VLBI Structure of the faint GPS and ULIR source 0524+010		6,4	30	6.25
BN016	Norbury, M.A. Phillips, P.M. Jackson, N.J. Browne, I.W.A. Wilkinson, P.N. Koopmans, L.V.E. Rusin, D. Myers, S.T. Marlow, D.R. Blandford, R. Fassnacht, C. Pearson, T. Readhead, T.	Jodrell Bank Jodrell Bank Jodrell Bank Jodrell Bank Jodrell Bank Caltech Pennsylvania NRAO-Socorro Pennsylvania Caltech NRAO-Socorro Caltech Caltech	Snapshot observations of CLASS lens candidates		2, 6	18	32.0
BR071	Ratner, M.I. Bartel, N. Bietenholz, M.F. Lebach, D.E. Lestrade, J-F. Ransom, R.R. Shapiro, I.I.	CfA York York CfA Meudon York CfA	Astrometry of HR 8703 in 2001 for the gravity probe-b mission		2, 3.6, 6 With RO GO TI EB Y27	31	15.5
BR076	Reid, M. Shapiro, I.	CfA CfA	VLBA Target of opportunity for a SNR candidate in NGC 7469		4	19	2.25
BS085	Stanghellini, C. Baum, S. Dallacasa, D. Fanti, R. Fanti, C. O'Dea, C. Perez-Torres, M.	Noto STScI Bologna Bologna Bologna STScI Bologna	VLBA observations of GHz-peaked spectrum radio sources		20,6,4,2,1	27,28	18.25
BS086	Sjouwerman, L. Dickel, J. Garrett, M.	JIVE Illinois JIVE	Extragalactic background calibrators around M31		20,6,4	9	9.0
BS087	Sudou, H. Iguchi, S. Murata, Y. Taniguchi, Y.	Tohoku Univ. NAO ISAS Tohoku University	Phase referencing VLBI observations of 3C 66B		13,4,1	13	10.25
BS089	Sudou, H. Taniguchi, Y. Kaburaki, O. Ohyama, Y. Sawada-Satoh, S. Inoue, M. Kameno, S.	Tohoku Tohoku Tohoku NAO NAO NAO NAO	Mapping the core region of NGC 6251		1.3, 2 With EB	1	4.5
BU020	Ulvestad, J. Ho, L. Teng, S.	NRAO-Socorro Carnegie Inst. Maryland	Nuclear absorption in Palomar Seyfert galaxies		20,13,6,4	10,19,26	31.75
BV040	Vlemmings, W. Baudry, A. Diamond, P. Habing, H. Schilizzi, R. van Langevelde, H.	Leiden Bordeaux Jodrell Bank Leiden JIVE JIVE	Monitoring the amplified stellar image in 4 AGB stars		20	11	12.0
BW053	Winn, J. Cohen, A. Hewitt, J.	MIT MIT MIT	Model constraints for a new flat-spectrum gravitational lens		4	24	5.25
BW054	Walker, R.C. Wrobel, J.	NRAO-Socorro NRAO-Socorro	Jet collimation regions		7	20	5.25
GM043	Moscadelli, L. Cesaroni, R. Rioja, M.	Cagliari Arcetri OAN	Water masers in high-mass protostar IRAS 20126+4104		1.3 With EbMcNtOnjb MhSh	1	12.0

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Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
W069	Zensus, J.A. Lobanov, A.P. Unwin, S.C. Cohen, M.H.	MPIfR MPIfR JPL Caltech	Jet in quasar 3C345		18, 6 With EB, Y27	2, 3	22.5
W302	Giovannini, G. Lara, L. Cotton, W.D. Venturi, T.	Bologna IAA NRAO-CV Bologna	BL Lac type objects Mkn 501, Mkn 421		6, 18 With RO, GO	5, 6	16.0
W330	Kameno, S. Wajima, K. Zhi-Qiang, S. Inoue, M. Sawada-Satoh, S.	NAO ISAS NAO NAO NAO	Complementary multi-frequency GPS survey		18 With RO	11	9.0
W409	Gabuzda, D.C. Pushkarev, A.B. Cawthorne, T.V.	JIVE Lebedev Lancashire	Polarization observations of BL Lac objects		6 With EB	29	8.0
	Staff	NRAO	Maintenance				96.0

The average downtime was 25.3 hours (5.3%)

Actual observing time was 444.4 hours

The VLBA was scheduled 81.0% of the time 606.7 hours of a possible 744 hours

Astronomical Observations = 63.0% (469.7 hours)

Tests and Calibrations = 9.0% ( 68.0 hours)

Maintenance = 9.0% ( 69.0 hours)

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Prog#	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BB129	Brogan, C. Claussen, M. Goss, M.	NRAO-Socorro NRAO-Socorro NRAO-Socorro	VLBA Zeeman observations of OH masers associated with SNRs		20	1,2,3	12.0
BB133	Biggs, A.D. Norbury, M.A. Browne, I.W.A. Koopmans, L. Norbury, M. Rusin, D.	Jodrell Bank Jodrell Bank Jodrell Bank Caltech Jodrell Bank Pennsylvania	Search for superluminal motion in two CLASS gravitational lens systems		1	9	10.25
BB133	Biggs, A.D. Norbury, M.A. Browne, I.W.A. Koopmans, L. Norbury, M. Rusin, D.	Jodrell Bank Jodrell Bank Jodrell Bank Caltech Jodrell Bank Pennsylvania	Search for superluminal motion in two CLASS gravitational lens systems		20,6,4	27	12.75
BD069	Diamond, P.J. Kemball, A.J.	Jodrell Bank NRAO-Socorro	TX Cam: the final curtain		0.7 With Y1	18	8.0
BF067	Fassnacht, C.	STScI	Structure in gravitational lens CLASS B1608+656		3.6 with EB	8	12.0
BG097	Guedel, M. Audard, M. Beasley, A.J. Benz, A.O. Brinkman, A. Mewe, R. Savin, D.	Paul Scherrer Paul Scherrer OVRO ETH Utrecht Utrecht Columbia	Bright RS CVn sources during XMM observations		3.6, 6 With Y27	15	12.0
BG098	Greenhill, L.G. Diamond, P.J. Moran, J.M.	CfA Jodrell Bank CfA	Maser motions in Orion BN/KL		0.7 With Y1	12	8.0
BG113	Gomez, J.L. Marscher, A.P. Marchenko-Jorstad, Alberdi, A. Agudo, I. Martí, J.M. Aloy, M.A. Ibanez, J.M.	IAA Boston Boston IAA IAA U. Jaen Valencia Valencia	Monitoring superluminal components in 3C120		0.7, 1.3, 2	1	12.0
BH080	Hough, D.	Trinity University	Variability in the nuclei of lobe-dominated quasars		4	19	5.75
BJ037	Jones, D. Dressel, L. Wehrle, A.	JPL StScI IPAC	Search for free-free absorption on sub-parsec scales in the nuclei of NGC 3998 and NGC 7052		20,13,6	7,11	16.5
BK076	Kurayama, T. Sasao, T.	NAO NAO	Parallax measurement of Miras for period-luminosity relation		1	22	5.0
BL088	Lazio, J. Chatterjee, S. Cordes, J. Fey, A.	NRL Cornell Cornell USNO	Intergalactic radio-wave scattering		90	17,18	20.50
BL099	Langston, G. Avruch, I. Minter, A. Perlman, E.	NRAO-Green Bank NFRA NRAO-Green Bank STScI	Monitoring PKS 1413+135 for superluminal motion and spectral evolution		6,4,2	28	9.50
BM139	Minier, V. Booth, R. Ellingsen, S. Norris, R.	Onsala Onsala Tasmania ATNF	Proper motion studies of 12.2 GHz methanol masers		2	11	6.0
BM142	Marcaide, J.M. Guirado, J.C. Perez-Torres, M.A. Ros, E.	Valencia Valencia Bologna MPIfR	Multi-wavelength absolute kinematics in the S5 polar cap sample		0.7, 2, 3.6	3	24.0
BP072	Palmer, P. Goss, M.	Chicago NRAO-Socorro	VLBA observations of 2II 1/2,J=1/2 OH in galactic sources		6	19,24	14.50
BS089	Sudou, H. Taniguchi, Y. Kaburaki, O. Ohyama, Y. Sawada-Satoh, S. Inoue, M. Kameno, S.	Tohoku Tohoku Tohoku NAO NAO NAO NAO	Mapping the core region of NGC 6251		1.3, 2 with EB	28	8.5
BV039	Vermeulen, R.C. Taylor, G.B.	NFRA NRAO-Socorro	Broad HI in the CSO 0428+205		18 With EB, Y1	25	14.0

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Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BV041	Venturi, T. Comastri, A. Fiore, F. Morganti, R. Pellegrini, S.	Bologna Bologna Rome Observatory NFRA Bologna	Radio galaxy PKS B1333-33		1.3, 2, 3.6 with Y1	13	8.0
BZ025	Zheng, X.W. Moran, J. Reid, M.	Nanjing CfA CfA	Proper motions of OH masers in G34.3+0.2 and NGC 7538		20	16, 17	19.25
GB036	Bartel, N. Bietenholz, M.F.	York York	SN 1979C in M100 in Virgo		18 With EVN, Y27, DSN	23	12.0
GG045	Gizani, N. Garrett, M. Leahy, J.	Madeira JIVE Jodrell Bank	Probing the parsec scale environment of 3C310		18 With EVN	21	10.0
GM038	McDonald, A.R. Pedlar, A. Muxlow, T.W.B. Diamond, P.J. Wills, K.A. Wilkinson, P.N. Garrett, M.A.	Jodrell Bank Jodrell Bank Jodrell Bank Jodrell Bank Sheffield U. Jodrell Bank JIVE	Second-epoch observations of compact supernova remnants in M82		18 with EVN, Y1, DSN	23	18.0
GM040	Marcaide, J.M. Guirado, J.C. Alberdi, A. Lara, L. Ros, E. Diamond, P. Shapiro, I.I. Preston, R.A. Schilizzi, R.T. Mantovani, F. Perez-Torres, M.A. Trigilio, C. Van Dyk, S. Weiler, K.W. Sramek, R.A. Whitney, A.R.	Valencia Valencia IAA IAA MPIfR Jodrell Bank CfA JPL JIVE Bologna Bologna Noto IPAC NRL NRAO-Socorro Haystack	Monitoring of the expansion of SN 1993J at 6 and 18cm		6 with EVN, Y27	14	12.0
GM041	Morganti, R. Oosterloo, T. Vermeulen, R. Pihlstrom, Y. van Moorsel, G. Tadhunter, C. Wills, K.	NFRA NFRA NFRA Onsala NRAO-Socorro Sheffield Sheffield	Neutral hydrogen absorption in far IR starbursting radio galaxies		18 with EVN, Y1	25, 26	23.0
GO005	Owsianik, I. Peck, A. Schilizzi, R. Taylor, G. Conway, J.	MPIfR MPIfR JIVE NRAO-Socorro Onsala	The study of inner jet in 3C236		6, 18 With EVN, Y1	13	12.0
GX007	Xanthopoulos, E. Browne, I. Wilkinson, P. Patnaik, A. Porcas, R.	Jodrell Bank Jodrell Bank Jodrell Bank MPIfR MPIfR	JVAS gravitational lens B1030+074		0.7, 18 with EVN, Y27	9, 20	27.0
W314	Murphy, D.W. Conway, J.E. Polatidis, A. Preston, R.A. Hirabayashi, H. Murata, Y. Kobayashi, H.	JPL Onsala Onsala JPL ISAS ISAS NAO	Regular monitoring of 1928+738		6 with EB	27	10.0
W401	Frey, S. Gurvits, L. Gabuzda, D.C. Altschuler, D.R. Salter, C.J. Perillat, P. Aller, H.D. Aller, M.F. Hirabayashi, H. Davis, M.M.	FOMISGO JIVE JIVE Arecibo Arecebo Arecibo Michigan Michigan ISAS SETI	Structural variability in the brightest AGN: AO 0235+164		6, 18 With AR, Y27	2, 4	17.0
W409	Gabuzda, D.C. Pushkarev, A.B. Cawthorne, T.V.	JIVE ASC Lancashire	Polarization observations of BL Lac objects		6 with AR, Y27	7	6.0

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Program	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
W412	Gomez, J.L. Gabuzda, D.C. Marscher, A.P. Jorstad, S.G. Alberdi, A. Agudo, I.	IAA JIVE Boston Boston IAA IAA	Jet/cloud interactions in 3C120		6 with AT	21	10.0
W414	Sudou, H. Iguchi, S. Murata, Y. Taniguchi, Y.	Tohoku NAO ISAS Tohoku	Phase referencing VSOP observation of 3C 66B		6 with EVN	10	11.0
	Staff	NRAO	Maintenance				82.0

The average downtime was 21.5 hours (5.3%)

Actual observing time was 385.0 hours

The VLBA was scheduled 79.0% of the time 533.0 hours of a possible 672 hours

Astronomical Observations = 60.0% (406.5 hours)

Tests and Calibrations = 10.0% ( 66.5 hours)

Maintenance = 9.0% ( 60.0 hours)

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Prog#	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BB129	Brogan, C. Claussen, M. Goss, M.	NRAO-Socorro NRAO-Socorro NRAO-Socorro	VLBA Zeeman observations of OH masers associated with SNRs		20	27	4.0
BC111	Cotton, W.D. Mennesson, B. Vlemmings, W. Perrin, G. Coude du Foresto, V. Chagnon, G. Diamond, P.J. van Langeveld, H.J. Ridgway, S. Morel, S. Traub, W. Carleton, N. Lacasse, M. Waters, R.	NRAO-CV Leiden Leiden Meudon Paris Obs. Paris Obs. Jodrell Bank JIVE NOAO CfA CfA CfA CfA Amsterdam	Bright O-rich Mira stars		0.7 With Y1	25	18.0
BC114	Clark, T. Ma, C. Johnston, K. Fey, A. Gordon, D. Gaume, R. Boboltz, D. Kingham, K. Vandenberg, N. Himwich, E. Shaffer, D. Fomalont, E. Walker, C.	NASA-GFSC NASA-GSFC USNO USNO Raytheon-GSFC USNO USNO USNO NVI-GSFC NVI-GSFC Radiometrics NRAO-CV NRAO-Socorro	VLBA Geodesy/Astrometry observations for 2001		3.6 Scheduled as RDV25	29	25.0
BD069	Diamond, P.J. Kemball, A.J.	Jodrell Bank NRAO-Socorro	TX Cam: the final curtain		0.7 With Y1	20	8.0
BF064	Fish, V. Argon, A. Menten, K.M. Reid, M.J.	CfA CfA MPIfR CfA	Magnetic fields in massive star forming regions		20	06	11.0
BG097	Gudel, M. Audard, M. Beasley, A.J. Benz, A.O. Brinkman, A. Mewe, R. Savin, D.	Paul Scherrer Paul Scherrer OVRO ETH Utrecht Utrecht Columbia	Bright RS CVn sources during XMM observations		3.6, 6 With Y27	26	12.0
BG098	Greenhill, L.G. Diamond, P.J. Moran, J.M.	CfA Jodrell Bank CfA	Maser motions in Orion BN/KL		0.7 With Y1	8	8.0
BG102	Gallimore, J.F. Baum, S.A. Kukula, M. Murray, C. O'Dea, C. Pedlar, A. Thean, A.	NRAO-CV STScI Edinburgh UNM Baltimore NRAL Bologna	VLBA Observations of the CfA Seyferts		13	22	4.0
BG111	Gallimore, J.F.	NRAO-CV	Possible new radio supernova in the merger remnant NGC 6240		2	19	6.0
BH077	Hachisuka, K. Fujisawa, K. Honma, M. Imai, H. Kameya, K. Manabe, S. Miyoshi, M. Mochizuki, N. Nisio, M. Omodaka, T. Sasao, T. Sawada-Satoh, S.	Graduated University NAO NAO NAO NAO NAO Graduated University Kagoshima Kagoshima NAO NAO	Detecting an annual parallax of water masers in W3 (OH)		1	28	4.0
BJ036	Jorstad, S.G. Marscher, A.P. Yurchenko, A.V.	Boston Boston St. Petersburg	BL Lac objects with high proper motion		4,2,1	07	16.0
BK068	Kellermann, K. Cohen, M. Vermeulen, R. Zensus, A.	NRAO-CV Caltech NFRA MPIfR	Kinematics of quasars and AGN		2	21	24.0

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Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BK076	Kurayama, T. Sasao, T.	NAO NAO	Parallax measurement of Miras for period-luminosity relation	1	23, 27, 28		16.0
BK078	Kellermann, K. Vermeulen, R. Zensus, A. Cohen, M.	NRAO-CV NFRA MPIfR Caltech	1345+125: an unusual AGN with a double nucleus and strong CO	2, 6 with Y1	4		10.5
BM132	Migenes, V. Altunin, V. Horiuchi, S. Ludke, E. Mendoza, E. Slysh, S.	Guanajuato JPL NAO Santa Maria INAOE ASC	Search for small angular sized OH maser regions	20	01		6.0
BM136	Marscher, A.P. Cawthorne, T.V. Stirling, A. Gear, W.K. Stevens, J.A. Marchenko, S.G. Lister, M.L. Gabuzda, D.C. Gomez, J.L. Smith, P. Forster, J.R. Yurchenko, A.V.	Boston Lancashire Lancashire Cardiff MRAO Boston JPL JIVE IAA KPNO Calif.-Berkeley St. Petersburg	Bright mm sources	0.7	28		24.0
BM142	Marcaide, J.M. Guirado, J.C. Perez-Torres, M.A. Ros, E.	Valencia Valencia Bologna MPIfR	Multi-wavelength absolute kinematics in the S5 polar cap sample	0.7, 2, 3.6	13		48.0
BT055	Taylor, G. Peck, A. Wilkinson, P. Vermeulen, R. Polatidis, A.	NRAO-Socorro MPIfR Jodrell Bank NFRA JIVE-Onsala	Pinpointing the cores in compact symmetric objects	2	4		24.0
BY012	Yi, J. Booth, R.S. Winnberg, A. Humphreys, E.M.L. Conway, J. Diamond, P.J.	Onsala Onsala Onsala Onsala Onsala Jodrell Bank	v=1 and v=2 SiO masers in Mira variables R Cas and TX Cam	0.7 With Y1	5		10.0
V047	Gurvits, L.I.	JIVE	Structure of extremely high redshift quasars at 1.6 and 5 GHz	6	25		7.0
W035	Gurvits, L.I. Frey, S. Schilizzi, R.T. Kellermann, K.I. Lobanov, A.P. Moran, E.C. Laurent-Muehleisen, Pauliny-Toth, I.I.K	JIVE FOMISGO JIVE NRAO-CV MPIfR Calif.-Berkeley UC - Davis MPIfR	Structure of extremely high redshifted quasars	18, 6	20, 21		15.0
W088	Roberts, D.H. Moellenbroek, G.A. Wardle, J.F.C. Gabuzda, D.C. Brown, L.F.	Brandeis NRAO-GB Brandeis JIVE Connecticut	Polarization monitoring of four bright quasars at 5 and 1.6 GHz	18 with AT, UD, SH, Y27	11		9.0
W094	Hirabayashi, H. Wehrle, A. Unwin, S. Makino, F. Kii, T. Kobayashi, H. Edwards, P. Okayasu, R. Valtaoja, E.	ISAS IPAC JPL ISAS ISAS NAO ISAS ISAS Tuorla	3C279	6 with AT, UD, SH, Y27	10		9.5
W308	Minter, A.H. Langston, G. Ghigo, F. Perlman, E.	NRAO-GB NRAO-GB NRAO-GB STScI	Monitoring PKS 1413+135	6, 18 With RO, GO, TI, AT	15, 16		19.0
W403	Frey, S. Gurvits, L.I. Lobanov, A.P.	FOMISGO JIVE MPIfR	Two extremely distant quasars	6	23		10.0
	Staff	NRAO	Maintenance				219.5

The average downtime was 14.0 hours (4.0%)

Actual observing time was 334.0 hours

The VLBA was scheduled 76.0% of the time 550.0 hours of a possible  
720 hours

Astronomical Observations	= 48.0%	(348.0 hours)
Tests and Calibrations	= 15.0%	(108.0 hours)
Maintenance	= 13.0%	( 94.0 hours)