

VLBA Utilization Report December 2003

Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BB166	Bower, G.C. Baganoff, F.K. Dhawan, V. Muno, M.	Calif., Berkeley MIT NRAO-Socorro MIT	Observations of X-ray point sources in the Galactic Center 17' Field		1	19	5.0
BB172	Brunthaler, A. Falcke, H. Greenhill, L. Henkel, C. Reid, M.	MPIfR MPIfR CfA MPIfR CfA	Proper motions in the local group		1	12,13	23.75
BB174	Bower, G.C. Bolatto, A. Plambeck, R.	Calif., Berkeley Calif., Berkeley Calif., Berkeley	Trigonometric parallax of radio stars in the Orion Nebula		2	22	6.0
BC120	Chatterjee, S. Backer, D. Benson, J. Briskin, W. Cordes, J.M. Ellis, R. Fomalont, E. Golden, A. Goss, M. Kramer, M. Lazio, T.J.W. Lyne, A. McKinnon, M. Thorsett, S. Wong, D.	Cornell Calif., Berkeley NRAO-Socorro NRAO-Socorro Cornell Calif., Santa Cruz NRAO-CV Ireland NRAO-Socorro Manchester NRL Manchester NRAO-Socorro Calif., Santa Cruz Cornell	Pulsar astrometry with the VLBA		20	1,5,6,12,1 5,24,27,31	18.25
BC127	Cawthorne, T. Gabuzda, D. Jorstad, S. Marscher, A. Stirling, A.	Lancashire Cork Boston Boston Lancashire	Precessing jet in BL lacertae?		0.7, 2, 4, 1	14	6.0
BC128	Claussen, M. Marvel, K.B. Wilking, B. Wootten, H.A.	NRAO-Socorro AAS UMSL NRAO-CV	Monitoring of water masers around low and intermediate luminosity young stellar objects		1	15	6.0
BC134	Chatterjee, S. Cordes, J.M. McLaughlin, M. Lazio, T.J.W. Arzoumanian, Z.	Cornell Cornell Jodrell Bank NRL NASA	Proper motion of a faint anomalously-located pulsar		18 With AR	2	4.0
BC137	Cesaroni, R. Beltran, M. Codella, C. Furuya, R. Moscadelli, L. Testi, L.	Arcetri Arcetri Firenze Arcetri Cagliari Arcetri	Study of H2O and OH masers tracing two bipolar outflows in the high-mass protocluster G24.78+0.08		1	1	1.75
BC138	Cheung, T. Taylor, G. Wardle, J.	Brandeis NRAO-Socorro Brandeis	Three lobe-dominated quasars with radio/optical hotspots		90 With Y1	11	9.75
BC172	Brunthaler, A. Falcke, H. Greenhill, L. Henkel, C. Reid, M.	MPIfR MPIfR CfA MPIfR CfA	Proper motions in the local group		1	12,13	23.75
BD076	Desmurs, J.F. Alcolea, J. Bujarrabal, V. Colomer, F. Sanchez-Contreras,	OAN OAN OAN OAN JPL	SiO masers in proto planetary nebulae		.7	6	5.5
BE033	Edwards, P.G. Kataoka, J. Murphy, D.	ISAS Tokyo Inst. JPL	Radio/optical/X-ray source 3C15		2,4,6,13,2 0	23	7.0
BE034	Edwards, P.G. Tingay, S.	ISAS Swinburne	Low-redshift GPS radio galaxy PKS B2254-367		4,13	11	6.0
BG114	Gabuzda, D. Cawthorne, T.V. Pushkarev, A.B.	JIVE Lancashire ASC	Toroidal B fields in BL lac objects		1,2,4,6	10	9.0
BG135	Gomez, Y. Anglada, G. Marvel, K. Miranda, L.F. Patel, N. Torrelles, J.M.	UNAM CSIC AAS CSIC CfA CSIC	Tracking th eproper motions of the H2O masers in the planetary nebula K3-35		1	21	10.0

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Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BH111	Horiuchi, S. Lister, M. Piner, B.G. Preston, B.	JPL Purdue JPL JPL	Magnetic field orientation around polarized core of superluminal quasar 1642+690		.7,1,2,4,6	30	12.50
BI028	Imai, H. Morris, M. Sahai, R.	JIVE UCLA JPL	Kinematics of collimated molecular jets in evolved stars: the case of IRAS 19134+2131		1	20	8.0
BJ036	Jorstad, S.G. Marscher, A.P. Yurchenko, A.V.	Boston Boston St. Petersburg Univ.	BL Lac objects with high proper motion		1,2,4,0.7	26	16.0
BK103	Kemball, A.	UIUC	Observational constraints on SiO maser excitation		.3, .7	20,21,23	18.0
BM182	Ma, C. Johnston, K. Fey, A. Boboltz, D. Gordon, D. Gaume, R. Kingham, K. Vandenberg, N. Himwich, E. MacMillan, D. Petrov, L. Fomalont, E. Walker, C.	NASA USNO USNO USNO NASA USNO USNO NASA NASA NASA NASA NRAO-CV NRAO-Socorro	VLBA Geodesy/Astrometry observations for 2003		3.6 With VaGcTswfwz TcOnNyNtMc Ma Scheduled as RDV42	17	25.0
BM191	Marscher, A. Aller, M.F. Gomez, J.L. Jorstad, S.G. McHardy, I.M.	Boston Michigan IAA, Granada Boston Southampton	Relationship between X-ray events and superluminal ejections in blazars		.7,1	7	16.0
BN021	Nagar, N. Falcke, H. Maoz, D. Wilson, A.	Arcetri MPIfR Tel Aviv Maryland	Accretion in low-luminosity AGN		6	24	2.5
BR088	Ratner, M.I. Bartel, N. Bietenholz, M.F. Lebach, D.E. Lestrade, J-F. Ransom, R.R. Shapiro, I.I.	CfA York U. York U. CfA Meudon York U. CfA	Astrometry of HR 8703 in 2003 for gravity probe-B mission		3.6 With EB, RO, GO, T1	5	17.5
BS133	Savolainen, T. Bottcher, M. Raiteri, C. Takalo, L.O. Wiik, K. Willata, M.	Tuorla Ohio Univ. INAF Tuorla Tuorla INAF	Multi-frequency properties of the blazar 3C 66A		.3, .7,1,4,6,1 3	2,18	16.0
BU027	Ulvestad, J. Neff, S. Teng, S.	NRAO-Socorro NASA Maryland	Monitoring young supernovae in Arp 299		.4, 13	29	10.0
BW067	Walker, R.C. Hardee, P.	NRAO-Socorro Alabama	Patterns in the 3C120 jet from 0.5 to 6 arcseconds		90	1,3,8,9,12 ,16,27,31	87.0
	Staff	NRAO	Maintenance				114.0

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Based on Actual Hours Observed

The average downtime was 26.6 hours (7.7%)

Actual observing time was 318.9 hours

The VLBA was scheduled 74% of the time 524.0 hours of a possible 704.0 hours

Astronomical Observations	= 49.0%	(345.5 hours)
Tests and Calibrations	= 14.0%	(99.5 hours)
Maintenance	= 11.0%	(79.0 hours)

Based on Scaled Observing Hours

The average downtime was 31.4 hours (7.7%)

Actual observing time was 376.0 hours

The VLBA was scheduled 83.0% of the time 585.9 hours of a possible 704 hours

Astronomical Observations	= 58.0%	(407.4 hours)
Tests and calibrations	= 14.0%	(99.5 hours)
Maintenance	= 11.0%	(79.0 hours)

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VLBA Utilization Report November 2003

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BB166	Bower, G.C. Baganoff, F.K. Dhawan, V. Muno, M.	Calif., Berkeley MIT NRAO-Socorro MIT	Obs. of X-ray point sources in the Galactic Center 17' Field		1, 4	22	10.0
BC120	Chatterjee, S. Backer, D. Benson, J. Briskin, W. Cordes, J. Ellis, R. Fomalont, E. Golden, A. Goss, M. Kramer, M. Lazio, J. Lyne, A. McKinnon, M. Thorsett, S. Wong, D.	NRAO-Socorro Calif., Berkeley NRAO-Socorro NRAO-Socorro Cornell Calif., Santa Cruz NRAO-CV Ireland NRAO-Socorro Manchester NRL Manchester NRAO-Socorro Calif., Santa Cruz Cornell	Pulsar astrometry		20	2,3,6,8,16 ,19,23,26, 30	18.0
BC128	Claussen, M. Marvel, K. Wilking, B. Wootten, H.A.	NRAO-Socorro AAS UMSL NRAO-CV	Monitoring of water masers around low and intermediate luminosity young stellar objects		1	25	6.0
BC137	Cesaroni, R. Beltran, M. Codella, C. Furuya, R. Moscadelli, L. Testi, L.	Arcetri Arcetri CNR Arcetri Cagliari Arcetri	Study of H ₂ O and OH masers tracing two bipolar outflows in the high-mass cluster		1	30	7.5
BC138	Cheung, T. Taylor, G. Wardle, J.	Brandeis NRAO-Socorro Brandeis	Three lobe-dominated quasars with radio/optical hotspots		90 With Y1	30	10.0
BD076	Desmurs, J.-F. Alcolea, J. Bujarrabal, V. Colomer, F. Sanchez-Contreras,	OAN OAN OAN OAN JPL	SiO masers in proto planetary nebulae		.7	24,26	10.5
BE028	Edwards, P.G. Kataoka, J.	ISAS Tokyo Inst.	Constraining the predicted motion in 3C303		6	17	8.0
BE030	Edwards, P.G. Holder, J. Piner, B.G.	ISAS Leeds Univ. Whittier College	Puzzling parsec-scale structure of the TeV gamma ray source 1ES 1956+650		1, 2	1	3.75
BE032	Eilek, J. Hardee, P.E. Owen, F. Walker, R.C.	NMINT Alabama NRAO-Socorro NRAO-Socorro	High resolution, low frequency observations of the Cygnus A hot spots		90	9	2.0
BE034	Edwards, P.G. Tingay, S.	ISAS Swinburne	Low-redshift GPS radio galaxy PKS B2254-367		6, 20	29	5.25
BG135	Gomez, Y. Anglada, G. Marvel, K. Miranda, L.F. Patel, N. Torrelles, J.M>	UNAM CSIC AAS CSIC Cfa CSIC	Tracking the proper motions of the H ₂ O masers in the planetary nebula K3-35		1	20	10.0
BG140	Goddi, C. Moscadelli, L.	Cagliari Cagliari	22.2 GHz maser observations to test the circumstellar disk/jet model toward the high mass YSO in AFGL 5142		1	22	12.0
BG141	Greenhill, L.J. Braatz, J.A.	Cfa NRAO-GB	Water maser emission in nucleus of NGC1386		1.3 With GO, GB, Y27	2	7.0
BH113	Hong, X.Y. An, T. Jiang, D.R. Wang, W.H. Zhao, J.-H.	ShAO ShAO ShAO ShAO Cfa	X.		.3, .7, 2 Hong	3	12.0
BK106	Krichbaum, T.P. Bach, U. Friedrichs, S. Impellizzeri, C.M.V Britzen, S. Wagner, S. Witzel, A. Zensus, J.A.	MPIfR MPIfR MPIfR MPIfR Heidelberg Heidelberg MPIfR MPIfR	IDV 0716+71 with INTEGRAL		20, 6, 1.3, 0.7	11, 12, 13, 14, 15, 16	72.0

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Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BL105	Lobanov, A. Klare, J. Ros, E. Zensus, J.A.	MPIFR MPIFR MPIFR MPIFR	Multi-frequency monitoring of the parsec-scale jet in 3C345		2,4,6	2	8.0
BL118	Loinard, L. Mioduszewski, A. Rodriguez, L.F.	UNAM NRAO-Socorro UNAM	Astrometric study of T Tau Sb		4	18	6.0
BM199	Moscadelli, L. Claussen, M.J. Furuya, R. Kitamura, Y. Testi, L. Wootten, H.A.	Cagliari NRAO-Socorro Cagliari ISAS Arcetri NRAO-Socorro	Low-mass YSOs explored by H2O masers		1	7, 21	14.0
BN021	Nagar, N. Falcke, H. Maoz, D. Wilson, A.	Arcetri MPIFR Tel Aviv Maryland	Accretion in low-luminosity AGN: A radio, UV and X-ray variability study		6	8	2.50
BS121	Savolainen, T. Courvoisier, T. Valtaoja, E. Wiik, K.	Tuorla Obs. INTEGRAL Tuorla Obs. Tuorla Obs.	Physics of AGN, a deep understanding of the quasar 3C273		.3, .7, 1, 2, 4, 6	23	9.0
BU027	Ulvestad, J.S. Neff, S. Teng, S.	NRAO-Socorro NASA Maryland	Monitoring young supernovae in Arp 299		4, 13	29	10.0
BW067	Walker, R.C. Hardee, P.	NRAO-Socorro Alabama	Patterns in the 3C120 jet from 0.5 to 6 arcseconds		90	9,17,20,21,24,28	45.0
BW073	Wiik, K.	Tuorla Obs.	Multi-wavelength millimeter observations		.3, .7	6	8.0
GD017	Diamond, P.J. Lonsdale, C.J. Lonsdale, C.J. Smith, H.E.	Manchester Haystack Caltech Caltech	Monitoring evolution of compact emission of Arp 220		20	9	13.0
GI001	Imai, H. Diamond, P.J.	JIVE Jodrell Bank	Kinematics of expanding circumstellar envelope of W43A		20	7	12.0
GT005	Taylor, G. Staff	NRAO-Socorro NRAO	Late time observations of GRB 030329 Maintenance		4	1	7.0 96.0
TG002			Fringe Test		7mm with GB	5	3.5

Based on Actual Hours Observed

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Astronomical Observations = 49.0% (345.5 hours)
 Tests and Calibrations = 14.0% (99.5 hours)
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 Based on Scaled Observing Hours

The average downtime was 31.4 hours (7.7%)

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The VLBA was scheduled 83.0% of the time 585.9 hours of a possible 704 hours

Astronomical Observations = 58.0% (407.4 hours)
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VLBA Utilization Report October 2003

Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BA068	Asaki, Y. Hachisuka, K. Deguchi, S. Honma, M. Imai, H.	ISAS Valencia NRO NAOJ JIVE	Measuring the transverse motion of a galactic evolved star, S Per		1,2	7	7.0
BA069	Anderson, J. Ulvestad, J.	NMIMT NRAO-Socorro	Measuring LLAGN sizes using intraday variability studies		4	2	4.0
BB166	Bower, G.C. Baganoff, F.K. Dhawan, V. Muno, M.	Calif., Berkeley MIT NRAO-Socorro MIT	Obs. of X-ray point sources in Galactic Center 17' Field		4	20	5.0
BB168	Bartel, N. Bietenholz, M.F. Lebach, D.E. Ratner, M.I. Shapiro, I.I.	York York CfA CfA CfA	Proper motion of the "core" of the quasar 3C345		4, 13	10,11,12	36.0
BC120	Chatterjee, S. Backer, D.C. Benson, J. Briskin, W. Cordes, J. Ellis, R. Fomalont, E. Golden, A. Goss, M. Kramer, M. Lazio, J. Lyne, A. McKinnon, M. Thorsett, S. Wong, D.	Cornell Calif., Berkeley NRAO-Socorro NRAO-Socorro Cornell Calif., Santa Cruz NRAO-CV Ireland NRAO-Socorro Manchester NRL Manchester NRAO-Socorro Calif., Santa Cruz Cornell	Pulsar astrometry with the VLBA		20	2,8,12,14, 15	14.0
BC127	Cawthorne, T. Gabuzda, D. Jorstad, S. Marscher, A. Stirling, A.	Lancashire Cork Boston Boston Lancashire	Precessing jet in BL Lacertae?		.7,1,2,4	17	6.0
BC135	Cotton, W.D. Bakker, E. Chignon, G. Coude du Foresto, V. Diamond, P.J. Kononen, P. McAllister, H. Mennesson, B. Perrin, G. Ragland, S. Ridgway, S. Traub, W. van Langevelde, H. Vlemmings, W. Waters, R.	NRAO-CV JIVE Obs. de Paris Obs. de Paris Manchester Metsahovi George State JPL DESPA CfA NOAO CfA JIVE Leiden Amsterdam	Obs. of bright O-rich Mira stars		.7	26	8.0
BD086	Doi, A. Kameno, S. Kohno, K.	Tokyo NAOJ Tokyo	VLBI imaging of high-frequency excess objects		0.4, 1,2	3	9.0
BD093	Doi, A. Inoue, M. Kameno, S. Nagai, N. Wajima, K.	Tokyo NAOJ NAOJ Tokyo University NAOJ	Inverse-Compton cooling in Narrow-line Seyfert 1		0.4,2,6,13 ,20	30	4.25
BE029	Edwards, P.G. Falcone, A.D. Horan, D. Kataoka, J. Piner, B.G.	ISAS Purdue CfA Tokyo Inst. Whittier	Structure and expansion of the TeV gamma-ray source H1426+428		4	19	8.0
BE030	Holder, J. Piner, B.G.	Leeds Whittier	Puzzling parsec-scale structure of the TeV gamma ray source 1ES1956+650		1,2	31	2.5
BG140	Goddi, C. Moscadelli, L.	Cagliari Cagliari	22.2 GHz maser observations to test the circumstellar disk		1	16	12.0
BH105	Hough, D. Aars, C.	Trinity Texas Christian Univ	Variability in the nuclei of lobe-dominated quasars		2,4	8	12.0
BI027	Imai, H. Diamond, P.J.	JIVE Manchester	Evolution of a molecular jet from the AGB star W43A		1	5	10.0

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Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BI028	Imai, H. Morris, M. Sahai, R.	JIVE UCLA JPL	Kinematics of collimated molecular jets in evolved stars		1	24	8.0
BK077	Kemball, A. Patnaik, A.	Illinois MPIfR	High polarization sample of compact radio sources		0.4	9	12.0
BK101	Kunert, M. Marecki, A. Spencer, R.	Torun Torun Manchester	Are weak and ultra-compact steep spectrum objects 'dying' CSOs?		0.4,2,6	13	15.75
BM155	Mutel, R. Helton, A. Su, B.	Iowa Iowa Yunnan	Structure of magnetic fields in AGN jets: Testing the shock model		0.7,1,2	27	10.0
BM177	Miyoshi, M. Deguchi, S. Imai, H. Nakashima, J.	NAOJ NAOJ JIVE NAOJ	Precise proper-motion measurement of the SiO maser sources at the Galactic Center relative to Sgr A*		0.7	6	8.0
BM191	Jorstad, S.G. Marscher, A.P. Aller, M.F. Gomez, J.L. McHardy, I.M.	Boston Boston U. Michigan IAA, Granada U. Southampton	Relationship between X-ray events and superluminal ejections in blazars		0.7, 1	1	17.0
BM199	Claussen, M.J. Furuya, R. Kitamura, Y. TEsti, L. Wootten, H.	NRAO-Socorr NAOJ ISAS Arcetri NRAO-CV	Low-mass YSOs explored by H2O masers		1	19	7.0
BM200	Marecki, A. Kunert, M.	Torun Torun	Confirmation of a restarted activity in AGN with bright cores and weak lobes		2,6	17,18	29.5
BN025	Nagai, H. Asada, K. Inoue, M.	Tokyo Univ. NAOJ NAOJ	Spectral indices in CSO CTD93		2, 4, 6, 13	25	11.0
BS133	Savolainen, T. Bottcher, M. Raiteri, C.M. Takalo, L.O. Villata, M. Wiik, K.	Tuorla Ohio Univ. Torino Tuorla Torino Tuorla	Multi-frequency properties of the blazar 3C 66A		.3, .7,1,6,13	10,30	16.25
BU025	Ulvestad, J. Elvis, M.	NRAO-Socorro Cfa	Jet and torus in NGC1068		4	4, 5	25.0
BX005	Xu, Y. Greenhill, L.J. Menten, K. Moscadelli, L. Zheng, X.	Nanjing Cfa MPIfR Cagliari Nanjing	Distance to the Persius spiral arm		2	21	8.0
GG049	Gudel, M. Smith, K. Conway, J. Pestalozzi, M. Beasley, A.J. Skinner, S. Audard, M.	Paul Scherrer MPIfR Onsala Onsala OVRO Colorado Columbia	Radio and x-ray observations of the T Tauri NS Triple System		4	23	19.0
GM048	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 Granada MPIfR Jodrell Bank Cfa JPL JIVE Bologna IAA Noto IPAC NRL NRAO-Socorro Haystack	Monitoring the expansion of SN 1993J at 6 and 18cm		6	29	11.5
GU003	Ulvestad, J.S. Elvis, M.	NRAO-Socorro Cfa	NGC 1068: deep search for a nucleus plus jet/wind structures		4	27, 31	25.25
	Staff	NRAO	Maintenance				102.0

October

Based on Actual Hours Observed

The average downtime was 9.0 hours (2.5%)

Actual observing time was 352.0 hours

The VLBA was scheduled 82% of the time 594.39 hours of a possible 720.0 hours

Astronomical Observations	=	50.0%	(361.00	hours)
Tests and Calibrations	=	22.0%	(161.75	hours)
Maintenance	=	10.0%	(71.64	hours)

Based on Scaled Observing Hours

The average downtime was 10.7 hours (2.5%)

Actual observing time was 416.67 hours

The VLBA was scheduled 91.0% of the time 660.76 hours of a possible 720 hours

Astronomical Observations	=	59.0%	(427.37	hours)
Tests and calibrations	=	22.0%	(161.75	hours)
Maintenance	=	10.0%	(71.64	hours)

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Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BA053	Attridge, J. Homan, D. R., Phillips Wardle, J.	Haystack Brandeis Haystack Brandeis	86 and 43 GHz linear polarization of five AGN with the VLBA		0.3, 0.7	30	10.25
BA069	Ulvestad, J.	NRAO-Socorro	Measuring LLAGN sizes using intraday variability studies		4	15,22,25	24.0
BB166	Bower, G. Baganoff, F. Dhawan, V. Muno, M.	Calif., Berkeley MIT NRAO-Socorro MIT	Observation of X-ray point sources in Galactic Center 17' field		4	18	5.0
BB171	Beswick, R. Pedlar, A.	Manchester Manchester	Multi-frequency radio continuum observations of the core components in the steep spectrum core radio galaxy 3C293		2,4,13	20,21	16.0
BC120	Chatterjee, S. Backer, D. Benson, J. Briskin, W. Cordes, J. Ellis, R. Fomalont, E. Golden, A. Goss, M. Kramer, M. Lazio, T.J.W. Lyne, A. McKinnon, M. Thorsett, S. Wong, D.	Cornell Calif., Berkeley NRAO-Socorro NRAO-Socorro Cornell Calif., Santa Cruz NRAO-CV Ireland NRAO-Socorro Manchester NRAL Manchester NRAO-Socorro Calif., Santa Cruz Cornell	Pulsar astrometry with the VLBA		20	3,6,7,8,17 ,19,20,21, 23,26	26.3
BC137	Cesaroni, P. Beltran, M. Codella, C. Furuya, R. Moscadelli, L. Testi, L.	Arcetri Arcetri Firenze Arcetri Cagliari Arcetri	Study of H2O and OH masers tracing two bipolar outflows in the high mass cluster G24.78+0.08		1,20	4,15	18.0
BC139	Claussen, M. Goss, M. Beasley, A.J. Moellenbrock, G.	NRAO-Socorro NRAO-Socorro OVRO NRAO-Socorro	Tests of water maser phase referencing for astrometry of galactic water masers		1	4	10.0
BE031	Edwards, P. Piner, B.	ISAS Whittier	Better determination of the apparent jet speed in PKS 2155-304		2	20	6.0
BG116	Geldzahler, B. Bradshaw, C. Fomalont, E.	George Mason George Mason NRAO-CV	Astrometric observations of the compact radio source G127.11+0.54		4	21	8.0
BG135	Gomez, Y. Anglada, G. Marvel, K. Miranda, L. Patel, N. Torrelles, J.	UNAM CSIC AAS CSIC Cfa CSIC	Tracking the proper motions of the H2O masers in the planetary nebula K3-35		1	24	10.0
BH111	Horiuchi, S. Lister, M. Piner, B.G. Preston, B.	JPL NRAO-CV Whittier College JPL	Magnetic field orientation around polarized core of superluminal quasar 1642+690		.7, 1,2,4,6	1	13.0
BJ036	Jorstad, S. Marscher, A. Yurchenko, A.	Boston Boston St. Petersburg	Magnetic field orientation around polarized core of the superluminal quasar 1642+690		.7,1,2,4	27	16.0
BK105	Kong, A. Dickel, J. Sjowerman, L.	Cfa Illinois NRAO-Socorro	Spatial extent of Braun-100; a young SNR in M31?		20	19,22,23	24.0
BL115	Lanyi, G. Boboltz, D. Charlot, P. Fey, A. Fomalont, E. Gordon, D. Ma, C. Sovers, O. Taylor, G. Ulvestad, J.	JPL USNO Bordeaux USNO NRAO-CV NASA NASA Remote Sensing NRAO-Socorro NRAO-Socorro	High precision K/Q band astrometry		.7, 1	13	24.0

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BL116	Lara, L. Alberdi, A. Guirado, J. Marcaide, J.M. Perez-Torres, M. Ros, E.	Granada IAA, Spain Valencia Valencia Bologna MPIFR	Kinematics and rotation measure in the inner jet of 3C395		.7, 1, 2	9	10.5
BL118	Loinsard, L. Mioduszewski, A. Rodriguez, L.	UNAM NRAO-Socorro UNAM	An astrometric study of T Tau Sb		4	24	6.0
BM182	Ma, C. Johnston, K. Fey, A. Boboltz, D. Gordon, D. Gaume, R. Kingham, K. Vandenberg, N. Himwich, E. MacMillan, D. Petrov, L. Fomalont, E. Walker, C.	NASA-GSFC USNO USNO USNO Raytheon-GSFC USNO USNO NVI-GSFC NVI-GSFC NVI-GSFC NASA-GSFC NRAO-CV NRAO-Socorro	VLBA Geodesy/Astrometry observations for 2003		3.6 Scheduled as RDV41	17	25.0
BM191	Marscher, A. Aller, M. Gomez, J.L. Jorstad, S. McHardy, I.	Boston Michigan IAA, Granada Boston Southampton	Relationship between X-ray events and superluminal ejections in blazars		.7, 1	5	17.0
BM193	Momjian, E. Romney, J.D. Carilli, C.L. Troland, T.H.	Kentucky/NRAO NRAO-Socorro NRAO-Socorro Kentucky	LIRG NGC7674		6	1	4.5
BN021	Nagar, N. Falcke, H. Maoz, D. Wilson, A.	Arcetri MPIR, Bonn Tel Aviv Maryland	Accretion in low-luminosity AGN: a radio, UV and X-ray variability study		6	25	2.50
BP107	Pihlstrom, Y. O'Dea, C. Bechtold, J. Conway, J.	NRAO-Socorro STScI Arizona Onsala	HI absorbing gas in the compact radio source 0Q208		20	6	12.0
BR088	Ratner, M.I. Bartel, N. Bietenholz, M.F. Lebach, D.E. Lestrade, J-F. Ransom, R.R. Shapiro, I.I.	Cfa York U. York U. Cfa Meudon York U. Cfa	Astrometry of HR 8703 in 2003 for gravity probe-B mission		4	8	17.75
BS121	Courvoisier, T. Valtaoja, E. Wiik, K.	INTEGRAL Tuorla Obs. Tuorla Obs.	Physics of AGN, a deep understanding of the quasar 3C272		.3, .7, 1, 2, 4, 6	7	9.0
BS131	Ho, P. Miyoshi, M. Shen, Z.-Q.	ASIAA NAOJ Shen	Observations of Sgr A* at .7 and .7mm		.3, .7	28	7.0
BV048	Vlemmings, W. Cotton, B. Diamond, P. van Langevelde, H.	Cornell NRAO-CV Manchester JIVE	Magnetic fields in the envelopes of late-type stars circular polarization of SiO masers		.7	12	18.0
BW066	Wiik, K. Collmar, W. Savolainen, T. Valtaoja, E.	Tuorla Obs. MPIE Tuorla Obs. Tuorla Obs.	Hard X-ray and multi-frequency properties of the blazar 3C279		.3, .7, 1, 2, 4, 6	14	9.0
BZ030	Zavala, B. Giovanini, G. Taylor, G.	NRAO-Socorro Bologna NRAO-Socorro	Searching for helical magnetic fields in parsec-scale jets		1, 2, 4	26	14
	Staff	NRAO	Maintenance				216.0

September

Based on Actual Hours Observed

The average downtime was 19.0 hours (5.2%)

Actual observing time was 343.8 hours

The VLBA was scheduled 79.7% of the time 574.7 hours of a possible 720.0 hours

Astronomical Observations	=	50.3%	(362.8 hours)
Tests and Calibrations	=	17.0%	(122.5 hours)
Maintenance	=	12.4%	(89.4 hours)

Based on Scaled Observing Hours

The average downtime was 22.5 hours (5.2%)

Actual observing time was 410.7 hours

The VLBA was scheduled 89.4% of the time 645.1 hours of a possible 720 hours

Astronomical Observations	=	60.0%	(433.2 hours)
Tests and calibrations	=	17.0%	(122.5 hours)
Maintenance	=	12.4%	(89.4 hours)

VLBA Utilization Report August 2003

Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BC120	Chatterjee, S. Backer, D. Benson, J. Briskin, W. Cordes, J. Ellis, R. Fomalont, E. Golden, A. Goss, M. Kramer, M. Lazio, T.J.W. Lyne, A. McKinnon, M. Thorsett, S.E. Wong, D.	Cornell Calif., Berkeley NRAO-Socorro NRAO-Socorro Cornell Calif., Santa Cruz NRAO-CV Ireland NRAO-Socorro Manchester NRL Manchester NRAO-Socorro Calif., Santa Cruz Cornell	Pulsar astrometry with the VLBA		20	2,10,11,24	10.0
BC127	Cawthorne, T. Gabuzda, D. Jorstad, S. Marscher, A.P. Stirling, A.	Lancashire Cork Boston Boston Lancashire	Precessing jet in BL Lacertae		1,2,4,7	19	6.0
BC128	Claussen, M.J. Marvel, K. Wilking, B.A. Wootten, H.A.	NRAO-Socorro AAS UMSL NRAO-CV	VLBA Monitoring of water masers around low and intermediate luminosity young stellar objects		1	5,21	12.0
BC138	Cheung, T. Taylor, G. Wardle, J.	Brandeis NRAO-Socorro Brandeis	Three lobe-dominated quasars with radio/optical hotspots		90 With Y1	9	9.75
BC141	Claussen, M.J. Morris, M. Sahai, R. Sanchez-Contreras,	NRAO-Socorro UCLA JPL OVRO	Magnetic fields in bipolar preplanetary nebulae		20	15	12.0
BD097	Dhawan, V. Fomalont, E. Lestrade, J.F. Mioduszewski, A. Rupen, M.	NRAO-Socorro NRAO-CV Obs. de Paris NRAO-Socorro NRAO-Socorro	Astrometry of X-ray binaries		6,20	9	5.0
BE025	Engels, D. Brand, J. Perez-Torres, M.A.	Sternwarte Bologna Bologna	Imaging the putative disk of the transverse star V778 Cyg		1	17	8.0
BF073	Fomalont, E. Bradshaw, C. DiSalvo, T. Fender, R. Geldzahler, B. Stella, L. van der Klis, M.	NRAO-CV George Mason Univ. Amsterdam Amsterdam NASA Rome Amsterdam	VLBI/INTEGRAL 48-hour observations of Sco X-1		3.6	1	7.5
BG131	Gabuzda, D. Croke, S. Vetukhnovskaya, Y.N.	Cork Cork ASC	Nature of variable sheath structures surrounding the jets of compact AGN		1,2,4,6	23	24.0
BG136	Gioletti, M. Giovannini, G. Taylor, G.	Bologna Ist. di Radioastrono NRAO-Socorro	Phased referenced observations of low power radio galaxies with sub-arcsecond structure		20	7,30	30.0
BG137	Gabuzda, D. Murray, E.	Cork Cork	Searching for toroidal B fields in the jets of three BL lac objects		2,4,6	12, 22	48.0
BH102	Hoffman, I. Goss, M. Brogan, C. Claussen, M.	UNM/NRAO NRAO-Socorro NRAO-Socorro NRAO-Socorro	Full Stokes observations of the W44 OH(1720 MHz) masers		18 With Y1	18, 26	15.0
BH105	Hough, D. Aars, C.	Trinity Texas Christian	Variability in the nuclei of lobe-dominated quasars		2,4	16	12.0
BH107	Horiuchi, S. Kameya, O. Migenes, V.	JPL NAO Guanajuato	Highly polarized water masers in Orion KL		1	3, 31	17.0
BH115	Hough, D.H. Aars, C.	Trinity Trinity	Parsec-scale jet speeds in a		4	13	24.0
BI027	Imai, H. Diamond, P.J.	JIVE Manchester	Evolution of a molecular jet from the AGB star W43A		1	15	10.0

VLBA Utilization Report August 2003

Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BL111	Lister, M. Aller, H.D. Aller, M.F. Cohen, M. Homan, D.C. Kadler, M. Kellermann, K. Kovalev, Y.A. Lobanov, A.P. Ros, E. Vermeulen, R.C. Zensus, J.A.	NRAO-CV Michigan Michigan Caltech NRAO-CV MPIfR NRAO-CV Lebedev MPIfR MPIfR NFRA MPIfR	Monitoring of jets in AGN with VLBA experiments		2	28	24.0
BM191	Marscher, A.P. Aller, M.F. Gomez, J.L. Jorstad, S.G. McHardy, I.M.	Boston Michigan IAA Boston Southampton	Relationship between X-ray events and superluminal ejections in blazars		1, 7	4	16.0
BM193	Momjian, E. Romney, J.D. Carilli, C.L. Troland, T.H.	Kentucky/NRAO NRAO-Socorro NRAO-Socorro Kentucky	LIRG NGC7674		3, 6, 6, 90 With GBT, Y1	30, 31	14.5
BM196	Mioduszewski, A.J. Blundell, K. Rupen, M. Walker, C. Taylor, G.	NRAO-Socorro Oxford NRAO-Socorro NRAO-Socorro NRAO-Socorro	Movie of precessing jet and equatorial outflow in SS433		20	1, 2, 3, 4, 5, 6	13.0
BS130	Stockdale, C.J. Attridge, J.M. Homan, D.C. Cowan, J.J.	NRL Haystack NRAO-CV Oklahoma	Polarimetric and spectral-index mapping of J0253+3835		20, 13	25	11.0
BU023	Ulvestad, J. Falcke, H. Henkel, C. Peck, A.	NRAO-Socorro MPIfR MPIfR MPIfR	Emerging jet component in Mrk 348		1,2,4	21	10.0
BU026	Ulvestad, J. Gehrels, N. Macomb, D. Michelson, P. Romani, R.	NRAO-Socorro NASA Boise State Stanford Stanford	Multi-epoch imaging of recently identified EGRET blazars		2	27	24.0
BW062	Wehrle, A. Boboltz, D. Fey, A. Johnston, K. Jones, D. Unwin, S.	JPL USNO USNO USNO JPL JPL	How far do radio cores wander		4	17	9.0
BW067	Walker, R.C. Hardee, P. Staff	NRAO-Socorro Alabama NRAO	Patterns in the 3C120 jet from 0.5 to 6 arcseconds Maintenance		90	2	4.0 96.0

August

Based on Actual Hours Observed

The average downtime was 10.5 hours (2.8%)

Actual observing time was 375.75 hours

The VLBA was scheduled 70.0% of the time 521.0 hours of a possible 744.0 hours

Astronomical Observations	=	50.5%	(375.75	hours)
Tests and Calibrations	=	10.5%	(77.25	hours)
Maintenance	=	9.0%	(68.00	hours)

Based on Scaled Observing Hours

The average downtime was 10.5 hours (2.8%)

Actual observing time was 365.25 hours

The VLBA was scheduled 74% of the time 554.5 hours of a possible 744 hours

Astronomical Observations	=	55.0%	(409.25	hours)
Tests and calibrations	=	10.0%	(77.25	hours)
Maintenance	=	9.0%	(68.00	hours)

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Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BA068	Asaki, Y. Deguchi, S. Hachisuka, K. Honma, M. Imai, H. Miyoshi, M.	ISAS NRO Univ. of Valencia NAOJ JIVE NACJ	Measuring the transverse motion of a galactic evolved star		1,2	13	7.0
BB159	Bachiller, R. Codella, C. Desmurs, J.-F. Marvel, K. Rioja, M.J. Santiago-Garcia, J.	OAN Arcetri OAN AAS OAN OAN	Precession and outbursts in protostellar outflows		1	7	10.0
BC120	Chatterjee, S. Backer, D.C. Benson, J. Briskin, W. Cordes, J. Ellis, R. Fomalont, E.B. Golden, A. Goss, W.M. Kramer, M. Lazio, T.J.W. Lyne, A. McKinnon, M. Thorsett, S. Wong, D.	Cornell Calif., Berkeley NRAO-Socorro NRAO-Socorro Cornell Calif., Santa Cruz NRAO-CV Ireland NRAO-Socorro Manchester NRL Manchester NRAO-Socorro Calif., Santa Cruz Cornell	Pulsar astrometry with the VLBA		20	6,13,14,15 ,20,21,27, 28	18.0
BC128	Claussen, M.J. Marvel, K. Wilking, B.A. Wootten, H.A.	NRAO-Socorro AAS UMSL NRAO-Cv	Monitoring of water masers around low and intermediate luminosity young stellar objects		1	8,22	6.0
BC134	Chatterjee, S. Cordes, J.M. McLaughlin, M. Lazio, T.J.W. Arzoumanian, Z.	Cornell Cornell Jodrell Bank NRL NASA	Proper motion of a faint anomalously-located pulsar		20	17	3.0
BE029	Edwards, P.G. Falcone, A.D. Horan, D. Kataoka, J. Piner, B.G.	ISAS Purdue Cfa Tokyo Inst. Whittier College	Structure and evolution of the TeV gamma ray source H1426+428		4	6	8.0
BF073	Fomalont, E. Geldzahler, B. Bradshaw, C. Fender, R. van der Klis, M. DiSalva, T. Stella, L.	NRAO-CV NASA George Mason Amsterdam Amsterdam Amsterdam Milan	VLBI/INTEGRAL observations of Sco X-1		4	30, 31	11.5
BG129	Greenhill, L.J. Chandler, C.J. Reid, M.J. Moran, J.M. Diamond, P.J.	Cfa NRAO-Socorro Cfa Cfa Jodrell Bank	SiO proper motions in Orion KL		7	18	8.0
BH107	Horiuchi, S. Kameya, O. Migenes, V.	JPL NAO Guanaajuato	Highly polarized water masers in Orion KL		1	16	8.5
BH113	Hong, X.-Y. An, T. Jiang, D.R. Wang, W.H. Zhao, J.-H.	Shanghai Shanghai Obs. Shanghai Obs. Shanghai Obs. Cfa	Millimeter VLBA observations of the core structure on a sub-parsec scale in AGN 1156+295 at z=0.729		2,3,7	24	13.0
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		1,2,7	11	4.0
BL119	Landes, E. Briskin, W.	Calif., Berkeley NRAO-Socorro	Stellar winds in Arches cluster		4	4	2.0
BM161	Marecki, A. Barthel, P. Falcke, H. Owsianik, I. Polatidis, A.	TRA0 Kapteyn MPIfR MPIfR Onsala	Testing spectral age derivation assumptions for CSO 1235+676		7	25	10.5

VLBA Utilization Report July 2003

Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BM175	Krichbaum, T.P. Middelberg, E. Roy, A. Walker, R.C.	MPIFR MPIFR MPIFR NRAO-Socorro	Beating the sensitivity limits: 3mm imaging of NGC 4261		2,3,7	4	12.0
BM181	Middelberg, E. Falcke, H. Krichbaum, T.P. Roy, A.L. Walker, R.C.	MPIFR MPIFR MPIFR MPIFR NRAO-Socorro	First 3mm VLBI imaging of M81		2,3,7	11	10.0
BM182	Ma, C. Johnston, K. Fey, A. Boboltz, D. Gordon, D. Gaume, R. Kingham, K. Vandenberg, N. Himwich, E. MacMillan, D. Petrov, L. Fomalont, E. Walker, C.	NASA USNO USNO USNO GSFC USNO USNO GSFC GSFC GSFC GSFC NRAO-CV NRAO-Socorro	VLBA Geodesy/Astrometry observations for 2003		3.6 Scheduled as RDV40	9	25.0
BM190	Maiolino, R. Dallacasa, D. Giovannini, G. Giroletti, M. Nagar, N. Schilizzi, R.	Arcetri Bologna Ist. di Radioastrono Bologna Groningen Dwingeloo	Elusive AGN in starburst galaxies		6	17,18	22.0
BM196	Mioduszewski, A.J. Blundell, K. Rupen, M. Walker, C. Taylor, G.	NRAO-Socorro Oxford NRAO-Socorro NRAO-Socorro NRAO-Socorro	Movie of precessing jet and equatorial outflow in SS433		20	...	65.0
BM201	Momjian, E. Romney, J.D.	Kentucky NRAO-Socorro	VLBA Observations on two possible in-beam calibrators for low frequency observations on the target source NGC 7674		90	11,16	4.0
BN021	Nagar, N. Falcke, H. Maoz, D. Wilson, A.	Arcetri MPIFR Tel Aviv Maryland	Accretion in low-luminosity AGN: A Radio, UV and X-ray variability study		6	27	2.5
BR087	Rector, T. Gabuzda, D. Peterson, K.	NRAO-Socorro Cork Yale	High energy peaked BL Lac objects		20	1	12.0
BS094	Sudou, H. Iguchi, S. Kameno, S. Murata, Y. Taniguchi, Y. Taniguchi, Y.	Tohoku University NAOJ NAOJ ISAS Tohoku University Tohoku University	Search for an accretion disk and a dusty torus in NGC 4261		4,6,13,20	5	12.0
BS100	Sanchez-Contreras, Alcolea, J. Bujarrabal, V. Colomer, F. Desmurs, J.-F.	JPL OAN OAN OAN OAN	Phase referencing mapping of 43 GHz SiO masers in the PPN OH 231.8+4.2		7	3	10.5
BS121	Savolainen, T. Courvoisier, T. Valtaoja, E. Wiik, K.	Tuorla Obs. INTEGRAL Tuorla Obs. Tuorla Obs.	Physics of AGN, a deep understanding of the quasar 3C 273		.3, .7, 1,2,4,6	2	9.0
BS128	Smith, J. Axon, D. Corbett, E. Gallimore, J. Robinson, A.	Hertfordshire Rochester Anglo-Australian Bucknell Hertfordshire	Radio axes and the optical polarization of Seyfert 1 Galaxies		20	2,12,14	28.0
BW068	Wiik, K. Baath, L. Rantakyro, F. Savolainen, T. Tornikoski, M. Valtaoja, E.	Tuorla Obs. Halmstad University ESO Tuorla Obs. Metsahovi Tuorla Obs.	High frequency monitoring of two flaring AGN		.3, .7, 1	2	3.0

VLBA Utilization Report July 2003

Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BX005	Xu, Y. Greenhill, L. Menten, K.M. Moscadelli, L. Reid, M.J. Zheng, X.W.	Nanjing CfA MPIfR Cagliari CfA Nanjing	Distance to the Persius spiral arm		2	30	8.0
R1A57	Chatterjee, S. Cordes, J. Lazio, J. Goss, M. Fomalont, E.B. Benson, J.M. Stairs, I. Briskin, W. Thorsett, S.	Cornell Cornell NRL NRAO-Socorro NRAO-CV NRAO-Socorro British Columbia NRAO-Socorro Calif.-Santa Cruz	VLB pulsar parallaxes		20	19	6.0
	Staff	NRAO	Maintenance				166.0

Based on Actual Hours Observed

The average downtime was 9.8 hours (2.9%)

Actual observing time was 328.2 hours

The VLBA was scheduled 68.0% of the time 508.0 hours of a possible 744.0 hours

Astronomical Observations = 45.0% (338.0 hours)
 Tests and Calibrations = 11.0% (79.0 hours)
 Maintenance = 12.0% (91.0 hours)

 Based on Scaled Observing Hours

The average downtime was 9.8 hours (2.9%)

Actual observing time was 328.2 hours

The VLBA was scheduled 78% of the time 577.8 hours of a possible 744 hours

Astronomical Observations = 55.0% (407.8 hours)
 Tests and calibrations = 11.0% (79.0 hours)
 Maintenance = 12.0% (91.0 hours)

VLBA Utilization Report June 2003

Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BB152	Bach, U. Alef, W. Graham, D. Greve, A. Krichbaum, T.P. Terasranta, H. Witzel, A. Zensus, J.A.	MPIfR MPIfR MPIfR IRAM MPIfR Metsahovi MPIfR MPIfR	Precessing or helical jet in NRAO 150?		1,4,0.7	27	12.0
BB159	Bachiller, R. Codella, C. Desmurs, J.-F. Marvel, K. Rioja, M.J. Santiago-Garcia, J. Santiago-Garcia, J.	OAN Arcetri Obs. OAN AAS OAN OAN OAN	Precession and outbursts in protostellar outflows: NGC1333 region		1	11	10.0
BB169	Bartel, N. Bietenholz, M.F. Rupen, M.	York York NRAO-Socorro	SN 1986J - search for a pulsar nebula		2,4	21, 22	24.0
BC120	Chatterjee, S. Backer, D. Benson, J. Briskin, W. Cordes, J.M. Ellis, R. Fomalont, E. Golden, A. Goss, M. Kramer, M. Lazio, T.J.W. Lyne, A. McKinnon, M. Thorsett, S.E. Wong, D.	Cornell Calif., Berkeley NRAO-Socorro NRAO-Socorro Cornell Calif., Santa Cruz NRAO-CV Nat'l Univ. Ireland NRAO-Socorro Manchester NRL Manchester NRAO-Socorro Calif., Santa Cruz Cornell	Pulsar astrometry with the VLBA		20	5,12,14,15	16.0
BC128	Claussen, M.J. Marvel, K. Wilking, B.A. Wootten, H.A.	NRAO-Socorro AAS UMSL NRAO-CV	VLBA Monitoring of water masers around low and inermidite young stellar objects		1	7,23	13.5
BE026	Engels, D. Brand, J. Perez-Torres, M.A.	Hamburger Sternwarte Radioastronomia, Ist Radioastronomia, Ist	Search for bipolar outflows in young proto-planetary nebulae		1	15	8.0
BE030	Edwards, P.G. Holder, J. Piner, B.G.	ISAS Leeds University Whittier College	Puzzling parsec-scale structure of the TeV gamma ray source 1E1956+650		1,2	9	6.0
BG129	Greenhill, L.J. Chandler, C.J. Reid, M.J. Moran, J.M. Diamond, P.J.	Cfa NRAO-Socorro Cfa Cfa Manchester	SiO proper motions in Orion KL		0.7 with Y1	13	8.0
BH102	Hoffman, I. Goss, M. Brogan, C. Claussen, M.	NRAO-Socorro NRAO-Socorro NRAO-Socorro NRAO-Socorro	Full stokes observations of the W44 OH(1720 MHz) masers		20	17	7.5
BH105	Hough, D. Aars, C.	Trinity University Texas Christian Univ	Variability in the nuclei of lobe-dominated quasars, Part II		2,4	14	12.0
BK092	Krichbaum, T.P. Bach, U. Ros, E. Polatidis, A. Witzel, A. Zensus, J.A. Ungerechts, H. Terasranta, H. Aller, H.D. Aller, M.F.	MPIfR MPIfR MPIfR MPIfR MPIfR MPIfR Massachusetts Metsahovi Michigan Michigan	VLBA Monitoring of 1633+382 during a major millimeter-flare		1, 0.3,0.7	23	14.0
BL104	Lobanov, A.P. Roland, J. Ros, E. Zensus, J.A.	MPIfR IAP MPIfR MPIfR	Cross-band monitoring of flare in the VLBI core of 3C345		2,07.7, 1	14	4.0

VLBA Utilization Report June 2003

Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BL111	Lister, M. Aller, H.D. Aller, M.F. Cohen, M.C. Homan, D.C. Kellermann, K. Kovalev, Y.A. Lobanov, A.P. Ros, E. Vermeulen, R.C. Zensus, J.A.	NRAO-CV Michigan, Univ. of Michigan, Inst. of Caltech NRAO-CV NRAO-CV Lebedev Inst. MPIfR MPIfR NFRA MPIfR	MOJAVE Program		2	15	24.0
BM182	Ma, C. Johnston, K. Fey, A. Boboltz, D. Gordon, D. Gaume, R. Kingham, K. Vandenberg, N. Himwich, E. MacMillan, D. Petrov, L. Fomalont, E. Walker, C.	GSFC USNO USNO USNO GSFC USNO USNO GSFC GSFC GSFC GSFC NRAO-CV NRAO-Socorro	VLBA Geodesy/Astrometry observations for 2003		4,13	18	25.0
BM184	Moscadelli, L. Claussen, M. Furuya, R. Kitamura, Y. Testi, L. Wootten, H.A.	Cagliari Obs. NRAO-Socorro Arcetri Obs. ISAS Arcetri Obs. NRAO-CV	Low-mass YSOs explored by H2O masers		1	8,9,29	21.5
BM191	Marscher, A.P. Aller, M.F. Gomez, J.L. Jorstad, S.G. McHardy, I.M.	Boston Michigan, Univ. of IAA, Granada Boston Southampton	Relationship between X-ray events and superluminal ejections in blazars		0.7, 1	26	16.0
BM192	Macquart, J-P. deBruyn, A.G. Gabuzda, D.C. Gurvits, L.I. Dennett-Thorpe, J.	Groningen NFRA Cork JIVE Groningen	Imaging the IDV quasar J1819+3845 at 22 GHz		1.3 With EB, Y27	13	15.0
BM196	Mioduszewski, A.J. Blundell, K. Rupen, M. Walker, C. Taylor, G.	NRAO-Socorro Oxford NRAO-Socorro NRAO-Socorro NRAO-Socorro	Movie of precessing jet and equatorial outflow in SS433		20	26, 27, 28, 29, 30	11.0
BR087	Rector, T. Gabuzda, D. Peterson, K.	NRAO-Socorro Cork University Yale University	Third epoch observations of high energy peaked BL lac objects		6	12	12.0
BS094	Sudou, H. Iguchi, S. Kameno, S. Murata, Y. Taniguchi, Y.	Tohoku University NAO NAO ISAS Tohoku University	Search for an accretion disk and a dusty torus in NGC 4261		0.7, 1, 2	28	12.0
BS116	Slysh, S. Salter, C. Ghosh, T. Nolan, M. Perillat, P.	ASC Arecibo Arecibo Arecibo Arecibo	VLBI Holography of the Arecibo 305-m telescope	HS	6 With AR	11	4.0
BT069	Taylor, G. Berger, E. Frail, D. Kulkarni, S.	NRAO-Socorro Caltech NRAO-Socorro Caltech	VLBA observations of GRB 030329		4	20	5.0
BV049	Vlemmings, W.H.T. Mellema, G. van Langevelde, H.	Cornell Leiden Obs. JIVE	Circular polarization of the H2O masers of proto-planetary nebulae		1	20	12.0
BW066	Wiik, K. Collmar, W. Savolainen, T. Savolainen, T. Valtaoja, E.	Tuorla Obs. MPIfEP Tuorla Obs. Tuorla Obs. Tuorla Obs.	Hard X-ray and multi-frequency properties of the blazar 3C 279		0.3, 0.7, 1,2,4,6	4	9.0
BW067	Walker, R.C. Hardee, P.E.	NRAO-Socorro University of Alabama	Patterns in 3C120 jet from 0.5 to 6 arcseconds		90	6	6.0

VLBA Utilization Report June 2003

Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
GB046	Bartel, N. Rupen, M. Bietenholz, M. Beasley, A.J. Graham, D. Altunin, V. Venturi, T. Umana, G. Cannon, W. Conway, J.	York NRAO-Socorro York OVRO MPIfR JPL Bologna Noto York Onsala	SN 1993J and center of MB1: morphological and spectral evolution		6	1	12.0
GJ010	Jackson, N. Wilkinson, P. Browne, I. York, T. Mao, S. Biggs, A. Koopmans, L. deBruyn, A.G.	Manchester Manchester Manchester Manchester Manchester Caltech NFRA	Substructure in CLASS lensing galaxies		6	3	32.0
GM049	Macquart, J-P. deBruyn, A.G. Gabuzda, D.C. Gurvits, L.I. Dennett-Thorpe, J.	Groningen NFRA Cork JIVE Groningen	Brightness temperature from polarimetry of IDV quasar J1819+3845		4,6 w/Y27	1	14.5
	Staff	NRAO	Maintenance				234.0

Based on Actual Hours Observed

The average downtime was 8.8 hours (2.4%)

Actual observing time was 357.2 hours

The VLBA was scheduled 77.0% of the time 555.4 hours of a possible 720.0 hours

Astronomical Observations = 51.0% (366.0 hours)
 Tests and Calibrations = 16.0% (118.4 hours)
 Maintenance = 10.0% (71.0 hours)

 Based on Scaled Observing Hours

The average downtime was 10.3 hours (2.4%)

Actual observing time was 418.2 hours

The VLBA was scheduled 86% of the time 618.9 hours of a possible 720 hours

Astronomical Observations = 60.0% (429.5 hours)
 Tests and calibrations = 16.0% (118.4 hours)
 Maintenance = 10.0% (71.0 hours)

VLBA Utilization Report May 2003

Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BB156	Budding, E. Slee, O.B. Beasley, A.J. Willes, A.	Carter Obs. ATNF OVRO Univ. of Sydney	Comparison between radio emission of two Algol-type binaries at high resolution		2	28	24.5
BB159	Bachiller, R. Codella, C. Desmurs, J.-F. Marvel, K. Rioja, M.J. Santiago-Garcia, J.	OAN Arcetri OAN AAS OAN OAN	Precession and outbursts in protostellar outflow: NGC 1333		1	14	10.0
BC120	Chatterjee, S. Backer, D.C. Benson, J. Brisken, W. Cordes, J.M. Ellis, R. Fomalont, E.B. Golden, A. Goss, M. Kramer, M. Lazio, T.J.W. Lyne, A. McKinnon, M. Thorsett, S.E. Wong, D.	Cornell Calif., Berkeley NRAO-Socorro NRAO-Socorro Cornell Calif., Santa Cruz NRAO-CV Ireland NRAO-Socorro Manchester NRL Manchester NRAO-Socorro Calif., Santa Cruz Cornell	Pulsar astrometry with the VLBA		20	2,9,14,20, 24,27,28	36.0
BD089	Doeleman, S.	Haystack	Multi transition VLBI observations of SiO masers		0.3, 0.7	3,4	23.50
BG129	Chandler, C.J. Greenhill, L.J. Reid, M.J. Moran, J.M. Diamond, P.J.	NRAO-Socorro Cfa Cfa Cfa Jodrell Bank	SiO proper motions in Orion KL		0.7 With Y1	12	8.0
BG134	Greenhill, L.J. Jauncey, D.L. Kondratko, P.T. Kuiper, T.B.H. Lovell, J.E.J. Moran, J.M.	Cfa ATNF Cfa JPL ATNF Cfa	Follow-up imaging of water megamasers detected with the DSN		1	16	13.0
BH102	Hoffman, I. Goss, M. Brogan, C. Claussen, M.	UNM/NRAO NRAO-Socorro NRAO-Socorro NRAO-Socorro	Full Stokes observations of the W44 OH(1720 MHz) masers		20	9, 15	14.5
BH108	Hong, X.-Y. An, T. Wang, W.H. Zhao, J.H.	Shanghai Shanghai Shanghai Cfa	Millimeter VLBA observations of the core structure on a sub-parsec scale in the gamma ray AGN 1156+295 at z=0.729		2,0.3, 0.7	10	12.0
BH114	Hoffman, I. Goss, M. Palmer, P.	UNM/NRAO NRAO-Socorro Chicago	The 6cm formaldehyde masers in Sgr B2		6 With Y27	17, 22	8.25
BL111	Lister, M.L. Aller, H.D. Aller, M.F. Cohen, M.C. Homan, D.C. Kadler, M. Kellermann, K. Kovalev, Y.A. Lobanov, A.P. Ros, E. Vermeulen, R.C. Zensus, J.A.	NRAO-CV Michigan Michigan Caltech NRAO-CV MPIfr NRAO-CV Lebedev MPIfr MPIfr NFRA MPIfr	MOJAVE Program		2	9	24.0
BL115	Lanyi, G. Boboltz, D. Charlot, P. Fey, A. Fomalont, E.B. Gordon, D. Ma, C. Sovers, J. Taylor, G. Ulvestad, J.	JPL USNO Bordeaux USNO NRAO-CV NASA NASA Remote Sensing NRAO-Socorro NRAO-Socorro	High precision K/Q-band astrometry		1	22	24.0

VLBA Utilization Report May 2003

Prog#	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BM171	Aller, M.F. Gomez, J.L. Jorstad, S.G. Marscher, A.P. McHardy, I.M.	Michigan IAA Boston Boston Southampton	Relationship between X-ray events and superluminal ejections in blazars		1, 0.7	23	15.0
BM175	Middelberg, E. Krichbaum, T.P. Roy, A. Walker, R.C.	MPIFR MPIFR MPIFR NRAO-Socorro	Beating the sensitivity limits: 3mm imaging of NGC 4261		2, 0.3, 0.7	5	12.0
BM178	Marvel, K. Alcolea, J. Boboltz, D. Bujarrabal, V. Colomer, F. Desmurs, J.F. Diamond, P.J. Kemball, A. Soria, R.	AAS OAN USNO OAN OAN OAN OAN Manchester NRAO-Socorro OAN	Relative spatial distribution of SiO masers in AGB stars at 43 and 86 GHz		0.3, 0.7	5	6.0
BM182	Ma, C. Johnston, K. Fey, A. Boboltz, D. Gordon, D. Gaume, R. Kingham, K. Vandenberg, N. Himwich, E. MacMillan, D. Petrov, L. Fomalont, E. Walker, C.	NASA-GSFC USNO USNO USNO Raytheon-GSFC USNO USNO NVI-GSFC NVI-GSFC NVI-GSFC GSFC NRAO-CV NRAO-Socorro	VLBA Geodesy/Astrometry observations for 2003		3.6 With VaKkMaMcNt OnTsWfWzGg Tc Scheduled as RDV38	7	25.0
BM184	Moscadelli, L. Claussen, M.J. Furuya, R. Kitamura, Y. Testi, L. Wootten, H.A.	Cagliari NRAO-Socorro Arcetri ISAS Arcetri NRAO-CV	Low-mass YSOs explored by H2O masers		1	2, 19	14.0
BM186	Momjian, E. Romney, J.D. Carilli, C.L. Troland, T.H.	Kentucky/NRAO NRAO-Socorro NRAO-Socorro Kentucky	OH and continuum in ULIRG 17208-0014		20, 90 With GB, Y27, Y1	25, 26	20.0
BP089	Piner, B.G. Edwards, P.G. Jones, D.	Whittier ISAS JPL	Monitoring of Ultra-fast blazars		1,2,0.7	26	18.0
BR084	Reid, M.J. Brunthaler, A.	Cfa Bonn Univ.	Proper motion of Sgr A*		0.7	2,3	16.0
BR085	Reid, M. Carilli, C. Menten, K. Wilner, D.	Cfa NRAO-Socorro MPIFR Cfa	HC3N temperature in the z=0.89 molecular cloud in 1830-211		1,2	3, 4	16.0
BR088	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 2003 for gravity probe-B mission		4	18	17.5
BS121	Savolainen, T. Courvoisier, T. Valtaoja, E. Wiik, K.	Tuorla Obs. INTEGRAL Tuorla Obs. Tuorla Obs.	Physics of AGN, a Deep understanding of the quasar 3C 273		1,2,4,6, 0.3, 0.7	11	9.0
BT068	Neff, S. Ulvestad, J.	NASA NRAO-Socorro	Radio supernova in NGC 3690		2,4,6,13	30	10.25
BT069	Taylor, G. Berger, E. Frail, D.A. Kulkarni, S.	NRAO-Socorro Caltech NRAO-Socorro Caltech	VLBA observations of GRB 030329		1, 2	19	5.0
BW068	Wiik, K. Baath, L. Rantakyro, F. Savolainen, T. Tornikoski, M. Tornikoski, M. Valtaoja, E.	Tuorla Obs. Halmstad Univ. ESO Tuorla Obs. Metsahovi Metsahovi Tuorla Obs.	High frequency monitoring of two flaring AGN		0.3, 0.7, 1	15	3.0

VLBA Utilization Report May 2003

Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
GM049	Macquart, J-P. deBruyn, A.G. Gabuzda, D.C. Gurvits, L.I. Dennett-Thorpe, J.	Groningen NFRA Cork JIVE Groningen	Brightness temperature from polarimetry of IDV quasar J1819+3845		6	31	14.5
GP036	Paragi, Z. Wardle, J. Homan, D. Vermeulen, R. Schilizzi, R. Fejes, I. Spencer, R. Stirling, A.	JIVE Brandeis NRAO-CV NFRA JIVE FOMISGO Jodrell Bank Central Lancashire	1.6 GHz circular polarization in SS 433		20	29	10.5
	Staff	NRAO	Maintenance				114.0

Based on Actual Hours Observed

The average downtime was 16.3 hours (4.3%)

Actual observing time was 363.2 hours

The VLBA was scheduled 83.0% of the time 620.0 hours of a possible
744.0 hours

Astronomical Observations = 51.0% (379.50 hours)
 Tests and Calibrations = 21.0% (161.50 hours)
 Maintenance = 11.0% (79.00 hours)

 Based on Scaled Observing Hours

The average downtime was 19.8 hours (4.3%)

Actual observing time was 440.7 hours

The VLBA was scheduled 94% of the time 701.0 hours of a possible 744 hours

Astronomical Observations = 62.0% (460.5 hours)
 Tests and calibrations = 21.0% (161.5 hours)
 Maintenance = 11.0% (79.0 hours)

VLBA Utilization Report April 2003

Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BB153	Bach, U. Alef, W. Krichbaum, T.P. Middelberg, E. Witzel, A. Zensus, J.A.	MPIfR MPIfR MPIfR MPIfR MPIfR	Measuring the core shift in Cygnus A		2,3,0.7	9	12.25
BB155	Ball, G.H. Moran, J.M. Greenhill, L.J.	CfA CfA CfA	H2O maser in M51		1.3 with EB, GB	12	14.0
BB159	Bachiller, R. Codella, C. Desmurs, J.-F. Marvel, K. Rioja, M.J. Santiago-Garcia, J.	OAN Arcetri OAN AAS OAN OAN	Precession and outbursts in protostellar outflows: NGC 1333 region		1	1	10.0
BB161	Britzen, S. Wagner, S. Bach, U. Krichbaum, T.P. Fuhrmann, L. Cimo, G. Kraus, A. Witzel, A. Zensus, J.A. Greve, A. Bremer, M. Grewing, M. Booth, R. Conway, J.	Heidelberg Heidelberg MPIfR MPIfR MPIfR MPIfR MPIfR MPIfR MPIfR IRAM Bristol IRAM Onsala Onsala	Jet of IDV source S5 0716+714		0.3 with IRAM, EB	28	8.0
BB162	Bach, U. Krichbaum, T.P. Alef, W. Middelberg, E. Graham, D. Witzel, A. Zensus, J.A. Greve, A. Bremer, M. Grewing, M. Booth, R. Conway, J.	MPIfR MPIfR MPIfR MPIfR MPIfR MPIfR MPIfR IRAM Bristol IRAM Onsala Onsala	Cygnus A at 3mm		0.3 with IRAM, EB	28	9.0
BB163	Bach, U. Krichbaum, T.P. Alef, W. Graham, D. Witzel, A. Zensus, J.A. Greve, A. Bremer, M. Grewing, M. Booth, R. Conway, J. Terasranta, H.	MPIfR MPIfR MPIfR MPIfR MPIfR MPIfR IRAM Bristol IRAM Onsala Onsala Metsahovi	Jet in NRAO 150		0.3 with IRAM, EB	29	5.0
BC120	Chatterjee, S. Backer, D.C. Benson, J. Briskin, W. Cordes, J.M. Ellis, R. Fomalont, E. Golden, A. Goss, M. Kramer, M. Lazio, T.J.W. Lyne, A. McKinnon, M. Thorsett, S.E. Wong, D.	Cornell Calif., Berkeley NRAO-Socorro NRAO-Socorro Cornell Calif., Santa Cruz NRAO-CV Ireland, Nat'l Univ. NRAO-Socorro Jodrell Bank NRL Jodrell Bank NRAO-Socorro Calif., Santa Cruz Cornell	Pulsar astrometry with the VLBA		20	10,11,14,1 5,25	10.25
BC126	Cotton, W.D. Saslaw, W.C.	NRAO-CV Virginia	Likely gravitational lensing of 3C435B		3.6 with EB	6	10.0
BC132	Carilli, C. Petric, A.	NRAO-Socorro Columbia	Separating AGN and starburst activity in two FIR luminous QSOs		18 with Y27	16, 19	14.0

VLBA Utilization Report April 2003

Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BC135	Cotton, W.D. Bakker, E. Chagnon, G. Coude du Foresto, V Diamond, P.J. Kononen, P. McAllister, H. Menesson, B. Perrin, G. Ragland, S. Ridway, S. Traub, W. van Langevelde, H. Vlemmings, W. Waters, R.	NRAO-CV Leiden Univ. Paris, Obs. de Paris, Obs. de Jodrell Bank Metsahovi Georgia State Univ. JPL Paris, Obs. de CfA NOAO CfA JIVE Leiden Univ. Amsterdam, Univ. of	VLBA Observations of bright O-rich Mira stars		0.7	25	8.0
BE025	Engels, D. Brand, J. Perez-Torres, M.A.	Sternwarte Bologna Bologna	Imaging the putative disk of the transvestite star V778 Cyg		1	24	8.0
BE028	Edwards, P.G. Kataoka, J.	ISAS Tokyo Inst.	Constraining the predicted motion in 3C303		6	15	8.0
BG116	Geldzahler, B. Bradshaw, C. Fomalont, E.	George Mason George Mason NRAO-CV	Astrometric observations of the compact radio source G127.11+0.54		4	7	8.0
BG129	Greenhill, L.J. Chandler, C.J. Reid, M.J. Moran, J.M. Diamond, P.J.	CfA NRAO-Socorro CfA CfA Jodrell Bank	SiO proper motions in Orion KL		0.7 with Y1	12	8.0
BH102	Hoffman, I. Goss, M. Brogan, C. Claussen, M.	NRAO-Socorro NRAO-Socorro NRAO-Socorro NRAO-Socorro	Full stokes observations of the W44 OH(1720 MHz) masers		18 with Y1	13, 18	15.0
BH105	Hough, D. Aars, C.	Trinity Texas Christian Univ	Variability in the nuclei of lobe-dominated quasars, Part II		2,4	9	12.0
BI027	Imai, H. Diamond, P.J.	JIVE Jodrell Bank	Evolution of a molecular jet from the AGB star W43A		1	3	10.0
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	10	12.0
BK097	Krichbaum, T.P. Graham, D.A. Lobanov, A. Witzel, A. Zensus, J.A. Greve, A. Bremer, M. Grewing, M. Booth, R. Conway, J. Gomez, J.-L. Alberdi, A.	MPIfR MPIfR MPIfR MPIfR MPIfR IRAM Bristol IRAM Onsala Onsala IAA IAA	Interior structure of relativistic jets at 86 GHz		0.3 with IRAM, EB	27, 29, 30	47.0
BL104	Lobanov, A. Roland, J. Ros, E. Zensus, J.A.	MPIR, Bonn IAP, Paris MPIR, Bonn MPIR, Bonn	Cross-band monitoring of a flare in the VLBI core of 3C345		1,2,7	23	4.0
BM161	Marecki, A. Barthel, P. Falcke, H. Owsianik, I. Polatidis, A.	Torun Kapteyn MPIR, Bonn MPIR, Bonn Onsala	Testing spectral age derivation assumptions for CSO 1245+676		1	19	11.0
BM171	Marscher, A.P. Aller, M.F. Gomez, J.L. Jorstad, S.G. McHardy, I.M.	Boston Univ. Michigan IAA, Spain Boston Univ. Southampton	Relationship between X-ray events and superluminal ejections in blazars		1,0.7	13	15.0
BM176	Momjian, E. Romney, J.D. Carilli, C.L. Troland, T.H.	Kentucky/NRAO NRAO-Socorro NRAO-Socorro Kentucky	VLBA continuum and HI absorption observations of LIG UGC 2369		18 with AR, Y27	2	10.0

VLBA Utilization Report April 2003

Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BM184	Moscadelli, L. Claussen, M.J. Furuya, R. Kitamura, Y. Testi, L. Wootten, A.	Cagliari NRAO-Socorro Arcetri ISAS Arcetri NRAO-CV	Low-mass YSOs explored by H2O masers		1	1,4,22	21.25
BM185	Murgia, M. Dallacasa, D. Stanghellini, C. Fanti, R.	Bologna Bologna Noto Bologna	Spectral versus kinematic age in CSOs		2, 3.6, 6, 18 with Y1	26	24.0
BM197	Mioduszewski, A.J. Dhawan, V. Rupen, M.P.	NRAO-Socorro NRAO-Socorro NRAO-Socorro	The Black hole X-ray transient, IGR J1746-321		2, 4, 0.7	4,8,11	13.0
BP103	Perez-Torres, M.A. Mantovani, F. Marcaide, J.M. Guirado, J.C. Alberdi, A. Lara, L. Ros, E. Panagia, N. Shapiro, I. Sramek, R. Stockdale, C. Weiler, K. Van Dyk, S. Lundqvist, P.	Bologna Bologna Valencia Valencia IAA Granada MPIfR STSci Cfa NRAO-Socorro NRL NRL IPAC Stockholm	SN 2001 gd in NGC 5033		3.6 with EB, GB, Y27	8	8.0
BP106	Petric, A. Carilli, C.	Columbia NRAO-Socorro	Study of the highest redshift compact steep spectrum sources, and a search for sub-arcsecond scale gravitational lensing		20	7	7.0
BR084	Reid, M.J. Brunthaler, A.	Cfa MPIR, Bonn	Proper motion of Sgr A*		7	5,25	16.0
BR086	Ribo, M. Dhawan, V. Martí, J. Mirabel, I.F.	Barcelona NRAO-Socorro Jaen Saclay	ToO observations of galactic gamma ray sources with INTEGRAL		2,4	2,19	6.25
BT068	Teng, S. Neff, S. Ulvestad, J.	Maryland NASA NRAO-Socorro	Radio supernova in NGC 3690		2,4,6,13	30	2.0
BT069	Taylor, G. Berger, E. Frail, D. Kulkarni, S.	NRAO-Socorro Caltech NRAO-Socorro Caltech	VLBA Observations of GRB 030329		1,2,4,6	1,6,22	24.0
BV044	Vlemmings, W.H.T. Diamond, P.J. van Langevelde, H.	Leiden Jodrell Bank JIVE	Polarization of circumstellar H ₂ masers		1	20	23.5
	Staff	NRAO	Maintenance				95.0

The average downtime was 16.5 hours (4%)

Actual observing time was 397.0 hours

The VLBA was scheduled 79.0% of the time 573.0 hours of a possible
720.0 hours

Astronomical Observations = 57.0% (413.50 hours)
 Tests and Calibrations = 13.0% (91.50 hours)
 Maintenance = 9.0% (68.00 hours)

VLBA Utilization Report March 2003

Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BA067	Anderson, J. Ulvestad, J.	NRAO-Socorro NRAO-Socorro	Measuring LLAGN sizes using intraday variability studies: measuring VLBI scale flux density and compactness		4	3,25	13.0
BB138	Bach, U. Krichbaum, T.P. Alef, W. Witzel, A. Zensus, J.A.	MPIfR MPIfR MPIfR MPIfR	Motion in the counter jet of Cygnus A		2, 6 With EB, Y1	31	16.0
BB152	Bach, U. Alef, W. Graham, D. Greve, A. Krichbaum, T.P. Terasranta, H. Witzel, A. Zensus, J.A.	MPIfR MPIfR MPIfR IRAM MPIfR Metsahovi MPIfR MPIfR	Precessing or helical jet in NRAO 150?		1,4,7	14	12.0
BB158	Beuther, H. Moscadelli, L. Schilke, P.	MPIfR Cagliari MPIfR	H2O and CH3 OH maser emission toward the massive protostellar object IRAS 19217+1651		1	15	12.0
BB160	Boboltz, D.A. Fey, A. Johnston, K.J.	USNO USNO USNO	VLBA Study of the RS CVn binary system		4	10,22	16.0
BB165	Boehmer, K. Marscher, A.	Fox Lane HS Boston University	Consequences of changing jet direction in quasar CTA 102		1,7	26	12.0
BC120	Chatterjee, S. Backer, D. Benson, J. Briskin, W. Cordes, J.M. Ellis, R. Fomalont, E.B. Golden, A. Goss, M. Kramer, M. Lazio, T.J.W. Lyne, A. McKinnon, M. Thorsett, S. Wong, D.	Cornell Calif., Berkeley NRAO-Socorro NRAO-Socorro Cornell Calif., Santa Cruz NRAO-Socorro Ireland NRAO-Socorro Jodrell Bank NRL Jodrell Bank NRAO-Socorro Calif., Santa Cruz Cornell	Pulsar astrometry with the VLBA		20	3,7,8,26,2 8,29	18.0
BC134	Chatterjee, S. Cordes, J.M. McLaughlin, M. Lazio, T.J.W. Arzoumanian, Z.	Cornell Cornell Jodrell Bank NRL NASA-GSFC	Proper motion of a faint anomalously-located pulsar		18 With AR	11	3.0
BD084	Doi, A. Kameno, S. Kohno, K.	Univ. Tokyo NAO Univ. Tokyo	Free-free absorption by narrow line regions in Seyfert 1 galaxy		20	16,17,20,2 1	25.0
BD086	Doi, A. Kameno, S. Kohno, K.	Univ. Tokyo NAO Univ. Tokyo	VLBI imaging of high frequency excess objects		0.4,6,13,2 0	8	9.0
BE029	Edwards, P.G. Falcone, A.D. Horan, D. Kataoka, J. Piner, B.G.	ISAS Purdue Cfa Tokyo Inst. Whittier College	Structure and evolution of the TeV gamma ray source H1426+428		4	22	8.0
BG128	Gabuzda, D.C. Rastorgueva, E.A. Smith, P.A.	Cork Moscow Arizona	Simultaneous optical and VLBI polarization observations		0.7, 1.3, 2	5	24.0
BG129	Greenhill, L.J.		SiO proper motions in Orion KL		0.7 With Y1	10	8.0
BG134	Greenhill, L.J. Kondratko, P.T. Lovell, J.E.J. Kuiper, T.B.H. Moran, J.M. Jauncey, D.L.	Cfa Harvard ATNF JPL Cfa ATNF	Follow-up imaging of water megamasers detected with the DSN		1.3 With EB, GO, Y27	27	13.0
BH097	Hoffman, I. Goss, M. Brogan, C. Claussen, M.	NRAO-Socorro NRAO-Socorro NRAO-Socorro NRAO-Socorro	Full stokes observations of the 1720 MHz OH masers in W28		18 with Y1	14, 24	10.0
BH102	Hoffman, I. Goss, M. Brogan, C. Claussen, M.	NRAO-Socorro NRAO-Socorro NRAO-Socorro NRAO-Socorro	Full stokes observations of the W44 OH(1720 MHz) masers		18 with Y1	6, 27	15.0

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Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BH107	Horiuchi, S. Kameya, O. Migenes, V.	JPL NAO University of Guanaj	Highly polarized water masers in Orion KL		1	24	8.5
BH110	Hines, D.C. Wrobel, J.	Univ. of Arizona NRAO-Socorro	Imaging the hidden QSO IRAS P090104+4109		20	13	13.0
B1025	Imai, H.	NAO	Exploration of collimated molecular jets in OH/IR stars		1	7	10.0
BK092	Krichbaum, T.P. Bach, U. Ros, E. Polatidis, A. Witzel, A. Zensus, J.A. Ungerechts, H. Terasranta, H. Aller, H.D. Aller, M.F.	MPIfR MPIfR MPIfR MPIfR MPIfR Massachusetts Metsahovi Michigan Michigan	VLBA Monitoring of 1633+382 during a major millimeter-flare		0.7, 1.3 With EB	20	14.0
BK099	Kulkarni, S. Berger, E. Frail, D. Soderberg, A.M.	Caltech Caltech NRAO-Socorro Caltech	Observations of Type Ic SN 2003L		6	7	6.0
BL111	Lister, M. Aller, H.D. Aller, M.F. Cohen, M. Homan, D. Kadler, M. Kellermann, K. Kovalev, Y.A. Lobanov, A. Ros, E. Vermeulen, R. Zensus, J.A.	NRAO-CV U. Michigan U. Michigan Caltech NRAO-CV MPIfR NRAO-CV Lebedev MPIfR MPIfR NFRA MPIfR	NOJAVE program		2	1,29	48.0
BL113	Lazio, J. Chatterjee, S. Cordes, J. Kramer, M.	NRL Cornell Cornell Jodrell Bank	B1849+005 and PSR B1849+00: a scattering comparison		18 With Y1	17	3.0
BL114	Lazio, T.W.J. Cordes, J. Gotthelf, E. Lang, C. Wang, D.	NRL Cornell Columbia U. Iowa UMass	Radio counterpart to a Chandra X-ray source toward the galactic center		4,6,13	21	4.5
BM165	Minier, V. Balaubramanyam, R. Burton, M. Walsh, A.	UNSW UNSW UNSW CfA	Search for protostellar disks in hot cores		2	2	6.0
BM171	Aller, M.F. Gomez, J.L. Jorstad, S.G. Marscher, A.P. McHardy, I.M.	U. Michigan IAA, Spain Boston University Boston University U. Southampton	Relationship between X-ray events and superluminal ejections in blazars		1,7	15	15.0
BM177	Miyoshi, M. Deguchi, S. Imai, H. Nakashima, J.	NAO Nobeyama JIVE Nobeyama	Precise proper motion measurement of the SiO maser sources at the galactic center relative to Sgr A*(II)		7	12	8.0
BM182	Ma, C. Johnston, K. Fey, A. Boboltz, D. Gordon, D. Gaume, R. Kingham, K. Vandenberg, N. Himwich, E. MacMillan, D. Petrov, L. Fomalont, E. Walker, C.	NASA-GSFC USNO USNO USNO Raytheon-GSFC USNO USNO NVI-GSFC NVI-GSFC NVI-GSFC GSFC NRAO-CV NRAO-Socorro	VLBA Geodesy/Astrometry observations for 2003		3.6 Scheduled as RDV37	12	25.0
BN022	Nagar, N. Falcke, H. Wilson, A.	Arcetri MPIfR University of Maryla	AGN Evolution in ultraluminous infrared galaxies		6	8	11.25

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Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
B0015	O'Dea, C. Baum, S. Condon, J. Kleijn, G. Stanghellini, C. Tilak, A. Wrobel, J.	STScI STScI NRAO-CV ESO CNR JHU NRAO-Socorro	Jet evolution in FRI radio galaxies		20	1	.5
BP016	Petric, A. Carilli, C.	Columbia NRAO-Socorro	Study of the highest redshift compact steep spectrum sources, and a search for sub-arcsecond scale gravitational lensing		20	1,9,21,29	28.0
BR086	Ribo, M. Dhawan, V. Martí, J. Mirabel, I.F.	Univ. de Barcelona NRAO-Socorro Jaen CEA	Observations of galactic gamma sources with INTEGRAL		2,4,13	24	3.0
BT066	Taylor, G. Pollack, L.	NRAO-Socorro Calif., Berkeley	Follow up observations of the compact symmetric object 0402+379		2,6,20	2	11.0
R1A57	Chatterjee, S. Cordes, J. Lazio, J. Goss, M. Fomalont, E.B. Benson, J.M. Stairs, I. Briskin, W. Thorsett, S.	Cornell Cornell NRL NRAO-Socorro NRAO-CV NRAO-Socorro NRAO-GB NRAO-Socorro Calif., Santa Cruz	VLB pulsar parallaxes		18 with GB	24	6.0
	Staff	NRAO	Maintenance				282.0

The average downtime was 17.4 hours (4%)

Actual observing time was 417.35 hours

The VLBA was scheduled 85.0% of the time 635.05 hours of a possible 744.0 hours

Astronomical Observations = 58.0% (434.75 hours)
 Tests and Calibrations = 15.0% (112.00 hours)
 Maintenance = 12.0% (88.30 hours)

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Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BA064	Anderson, J. Asada, K. Inoue, M. Kameno, S. Nagai, H. Uchida, Y.	NRAO-Socorro NAO NAO NAO NAO Univ. of Tokyo	Faraday rotation measure survey of AGN jets search for the helical magnetic field in the jets		2,4,6,13	21	10.0
BA067	Anderson, J. Ulvestad, J.	NRAO-Socorro NRAO-Socorro	Measuring LLAGN sizes using intraday variability studies		4	19,21	12.0
BC120	Chatterjee, S. Backer, D.C. Benson, J. Briskin, W. Cordes, J. Ellis, R. Fomalont, E. Golden, A. Goss, M. Kramer, M. Lazio, T.J.W. Lyne, A. McKinnon, M. Thorsett, S. Wong, D.	Cornell Calif., Berkeley NRAO-Socorro NRAO-Socorro Cornell Calif., Santa Cruz NRAO-CV Univ. of Ireland NRAO-Socorro Jodrell Bank NRL Jodrell Bank NRAO-Socorro Calif., Santa Cruz Cornell	Pulsar astrometry with the VLBA		20	1,5,8,9,10 ,15,24,26, 28	22.0
BG114	Gabuzda, D. Cawthorne, T.V. Pushkarev, A.B.	Cork Lancashire ASC	Toroidal B fields in BL Lac objects		0.7,1,2,4, 6	20	9.0
BG129	Greenhill, L.J. Chandler, C.J. Reid, M.J. Moran, J.M. Diamond, P.J.	Cfa NRAO-Socorro Cfa Cfa Jodrell Bank	SiO proper motions in Orion KL		0.7 with Y1	9	8.0
BH097	Hoffman, I. Goss, M. Brogan, C. Claussen, M.	UNM/NRAO NRAO-Socorro NRAO-Socorro NRAO-Socorro	Full stokes observations of the 1720 MHz OH masers in W28		18 with Y1	24	5.0
BH105	Hough, D. Aars, C.	Trinity Texas Christian Univ	Variability in the nuclei of lobe-dominated quasars, Part II		2,4	12	12.0
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		0.7,1,2	10	4.0
BL111	Lister, M.L. Aller, H.D. Aller, M.F. Cohen, M.C. Homan, D.C. Kadler, M. Kellermann, K. Kovalev, Y.A. Lobanov, A. Ros, E. Vermeulen, R.C. Zensus, J.A.	NRAO-CV Michigan Michigan Caltech NRAO-CV MPIfR NRAO-CV Lebedev MPIfR MPIfR NFRA MPIfR	MOJAVE Program: monitoring of jets in AGN with VLBA experiments		2	5	24.0
BM171	Marscher, A.P. Aller, M.F. Gomez, J.L. Jorstad, S.G. McHardy, I.M.	Boston University Michigan IAA, Granada Boston University Southampton	Relationship between x-ray events and superluminal ejections in blazars		0.7, 1	16	15.0
BM176	Momjian, E. Romney, J.D. Carilli, C.L. Troland, T.H.	Kentucky/NRAO NRAO-Socorro NRAO-Socorro Kentucky	VLBA continuum and HI absorption observations of LIG UGC 2369		18 line with AR, Y27	4	10.0
BM180	Marvel, K.B. Mannings, V.	AAS IPAC	Water maser kinematics near Herbig Ae/Be stars		1	23	12.0
BM183	Mantovani, F. Saikia, D.J.	Bologna NCRA	B1524-136: a quasar with two-sided radio jets		4	2	10.0
BN021	Nagar, N.M. Falcke, H. Maoz, D. Wilson, A.	Arcetri MPIfR Tel Aviv Maryland	Accretion in low-luminosity AGN: a radio and x-ray variability study		6	3	3.0
BN022	Nagar, N.M. Falcke, H. Wilson, A.	Arcetri MPIfR Maryland	AGN Evolution in ultraluminous infrared galaxies		6	22,26,27	42.0

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Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BO013	Ojha, R. Cordes, J.M. Fey, A. Jauncey, D. Kedziora-Chudczer, Lazio, T.J.W. Lovell, J.	ATNF Cornell USNO ATNF ATNF NRL ATNF	Intra day variable sources as a probe of the intergalactic medium		4,13,20,90	17,22,24	48.5
BO015	O'Dea, C. Baum, S. Condon, J. Kleijn, G.V. Stanghellini, C. Tilak, A. Wrobel, J.	STScI STScI NRAO-CV ESO CNR Johns Hopkins NRAO-Socorro	Jet evolution in FRI radio galaxies		6,20	5,7,8,11,14,15,16,20,28	83.5
BP088	Peck, A. Falcke, H. Gallimore, J. Henkel, C. Menten, K. Ulvestad, J.	MPIfR MPIfR Bucknell MPIfR MPIfR NRAO-Socorro	Tracking the H2O megamaser in jet of Mrk 348		1	19	10.0
BS121	Savolainen, T. Courvoisier, T. Valtaoja, E. Wiik, K.	Tuorla Obs. INTEGRAL SDC Tuorla Obs. Tuorla Obs.	Physics of AGN, a deep understanding of the quasar 3C273		0.3, 0.7, 1,2,4,6	28	9.25
BS125	Snellen, I. Dunlop, J. Kukula, M.	Ifa Ifa Ifa	Relationship between radio core properties and black hole mass in radio-loud quasars		6,20	1	12.5
BT066	Pollack, L.	Calif., Berkeley	Follow-up observations of the compact symmetric object 0402+379		2,6,20	2	11.0
BT067	Teng, S. Johnson, K. Neff, S. Ulvestad, J.	Maryland Wisconsin GSFC NRAO-Socorro	Super star cluster complex or background AGN?		4	9	10.0
GC023	Charlot, P. Pradel, N. Lestrade, J.-F.	Bordeaux Bordeaux Meudon	Phase-reference astrometry of compact symmetric objects		3.6 with WB ON MC NT YB	10	24.0
GJ010	Jackson, N. Biggs, A. Browne, I. de Bruyn, A.G. Koopmans, L. Mao, S. Wilkinson, P. York, T.	Jodrell Bank JIVE Jodrell Bank NFRA Caltech Jodrell Bank Jodrell Bank Jodrell Bank	Substructure in CLASS lensing galaxies		6	15	8.0
GP034	Peck, A. Henkel, C. Tarchi, A. Nagar, N.	Cfa MPIfR Bologna Arcetri	Megamasers in Mrk 1066 and Mrk 34		1.3 with JB ON MC NT RO	8	8.0
	Staff	NRAO	Maintenance				96.0

The average downtime was 19.5 hours (4.6%)

Actual observing time was 403.75 hours

The VLBA was scheduled 83.0% of the time 560.25 hours of a possible
672.0 hours

Astronomical Observations = 63.0% (423.25 hours)
 Tests and Calibrations = 10.0% (69.00 hours)
 Maintenance = 10.0% (68.00 hours)

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Progrm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
AB080	Bower, G. Bower, G.	Calif., Berkeley Calif., Berkeley	BIMA observations at 86 GHz		1,2	24,30	8.0
BA045	Alberdi, A. Gomez, J.L. Marcaide, J.M. Marscher, A.P. Perez-Torres, M.A.	IAA, Spain IAA, Spain Valencia Boston IRA	Interaction of moving and standing components in 4C39.25		1,2,7	13	13.75
BA053	Attridge, J.M. Homan, D.C. Phillips, R.B Wardle, J.F.C	Haystack Brandeis Haystack Brandeis	Linear Polarization of Five AGN with the VLBA		3,7	22	10.0
BA064	Asada, K. Inoue, M. Kameno, S. Nagai, H. Uchida, Y.	NAO NAO NAO NAO Science Univ.	Faraday rotation measure survey of AGN jets		2,4,6,13	8,13,17	30.0
BB153	Bach, U. Alef, W. Krichbaum, T.P. Middelerg, E. Witzel, A. Zensus, J.a.	MPIfR MPIfR MPIfR MPIfR MPIfR	Measuring the core shift in Cygnus A		1,2	16	11.75
BC118	Cawthorne, T.V. Papageorgiou, A. Stirling, A.M. Gabuzda, D.C.	Lancashire Lancashire Lancashire Cork	Polarization monitoring of the radio jet in 4C71.07		2,4,6,7	12	12.75
BC119	Cheung, C.C. Homan, D.C. Roberts, D.H. Sambruna, R.M. Urry, C.M. Wardle, J.F.C.	Brandeis Brandeis Brandeis George Mason STScI Brandeis	Full stokes imaging of a sample detected and non-detected X-ray jets		2,4	7	24.0
BC120	Chatterjee, S. Backer, D.C. Benson, J. Briskin, W. Cordes, J.M. Ellis, R. Fomalont, E.B. Golden, A. Goss, M. Kramer, M. Lazio, T.J.W. Lyne, A. McKinnon, M. Thorsett, S. Wong, D.	Cornell Calif., Berkeley NRAO-Socorro NRAO-Socorro Cornell Calif., Santa Cruz NRAO-CV Univ of Ireland NRAO-Socorro Jodrell Bank NRL Jodrell Bank NRAO-Socorro Calif., Santa Cruz Cornell	Pulsar astrometry with the VLBA		20	11,23,27	8.0
BC123	Chatterjee, S. Backer, D. Benson, J. Briskin, W. Cordes, J.M. Ellis, R. Fomalont, E.B. Golden, A. Goss, M. Kramer, M. Lazio, T.J.W. Lyne, A. McKinnon, M. Thorsett, S. Wong, D.	Cornell Calif., Berkeley NRAO-Socorro NRAO-Socorro Cornell Calif., Santa Cruz NRAO-CV Univ. of Ireland NRAO-Socorro Jodrell Bank Calif., Berkeley Jodrell Bank NRAO-Socorro Calif., Santa Cruz Cornell	First epoch pulsar astrometry with the VLBA		20	13,17,25	6.0
BD078	Dhawan, V. Kellermann, K. Romney, J.	NRAO-Socorro NRAO-CV NRAO-Socorro	Monitoring the accelerating, bent jet in 3C84		7	22	13.75
BE025	Engels, D. Brand, J. Perez-Torres, M-A.	Hamburger Sternwarte Inst. di Radioastron Inst. di Radioastron	Imaging the putative disk of the transverse star V778 Cyg		1	12	8.0
BG129	Greenhill, L.J. Chandler, C.J. Reid, M.J. Moran, J.M. Diamond, P.J.	Cfa NRAO-Socorro Cfa Cfa Jodrell Bank	SiO proper motions in Orion KL		0.7 With Y1	10	8.0

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Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BG132	Greenhill, L.J. Kondratko, P. Moran, J. Lovell, J. Jauncey, D. Kuiper, T.	Cfa Cfa Cfa ATNF ATNF JPL	Follow-up imaging of Southern H ₂ O masers detected with the DSN		1.3 With Y27	16	7.0
BH103	Homan, D.C. Kovalev, Y.Y.	NRAO-CV ASC	Measuring frequency dependant core positions in VLBI jets with phase referencing		2,4,6,13	19	17.0
BH104	Homan, D.C.	NRAO-CV	The 180d misaligned jet in PKS 1510-089		18 With Y1	9	9.0
BH107	Horiuchi, S. Migenes, V. Kameya, O.	JPL Guanajuato NAO	Highly polarized water masers in Orion KL		1	3	8.5
BI025	Imai, H.	NAO	Exploration of collimated molecular jets in OH/IR stars		1	4	10.0
BJ036	Jorstad, S.G. Marscher, A.P. Yurchenko, A.V.	Boston Boston St. Petersburg Unive	BL Lac objects with high proper motion		1,2,4,7	6	18.0
BJ044	Jauncey, D. Bignall, H. Fey, A. Johnston, K. Kedziora-Chudczer, Lovell, J. Macquart, J.-P. Ojha, R. Reynolds, J. Tzioumis, T.	ATNF ATNF USNO USNO ATNF ATNF Kapteyn ATNF ATNF ATNF	Snap shot imaging of scintillating sources		4	27,30	48.0
BK092	Krichbaum, T.P. Aller, H.D. Aller, M.F. Bach, U. Polatidis, A. Ros, E. Terasranta, H. Ungerechts, H. Witzel, A. Zensus, J.A.	MPIfR Michigan Michigan MPIfR MPIfR MPIfR Metsahovi IRAM MPIfR MPIfR	VLBA monitoring of 1633+382 during a major millimeter flare		1,3,7	3	13.25
BL105	Lobanov, A.P. Klare, J. Ros, E. Zensus, J.A.	MPIfR MPIfR MPIfR MPIfR	Multi-frequency monitoring of the parsec-scale jet in 3C345		2,4,6	20	8.0
BM171	Marscher, A.P. Aller, M.F. Gomez, J.L. Jorstad, S.G. McHardy, I.	Boston University Michigan IAA, Spain Boston University Southampton	Relationship between x-ray events and superluminal ejections in blazars		1,7	5	15.0
BM177	Miyoshi, M. Deguchi, S. Imai, H. Nakashima, J.	NAO NAOJ JIVE NAOJ	Precise proper motion measurement of the SiO maser sources at the Galactic Center relative to Sgr A* (II)		7	11	8.0
BM180	Marvel, K.B. Mannings, V.	AAS IPAC	Water maser kinematics near Herbig Ae/Be stars		1	10	12.0
BM183	Mantovani, F. Saikia, D.J.	Bologna Pune	B1524-136: A quasar with two sided jets		6	29	10.0
BN020	Nakai, N. Yamauchi, A. Sato, N. Diamond, P.	NAO NAO NAO Jodrell Bank	Water vapor megamaser in the LINER IC 1481		1.3 With phased VLA	4	10.0
BN021	Nagar, N.M. Falcke, H. Maoz, D. Wilson, A.	Arcetri MPIfR Tel Aviv Maryland	Accretion in low-luminosity AGN: a radio, UV and x-ray variability study		6	10,14,17	12.5
BN022	Nagar, N.M. Falcke, H. Wilson, A.	Arcetri MPIfR Maryland	AGN evolution in ultraluminous infrared galaxies		6	2	24.0
BR081	Rector, T.A. Fassnacht, C.D. Myers, S.T. Taylor, G.B. Wrobel, J.M.	NRAO-Socorro STScI NRAO-Socorro NRAO-Socorro NRAO-Socorro	AGN content of the Cetus field of the NOAO deep wide-field survey		6	4,18,20	15.5

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Progm	Observer	Affiliation	Program Title	Stns	Bands cm	Observing Date	Sched Hours
BR088	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 2003 for gravity probe-B mission		3.6 With EB, RO, GO	26	14.5
BS120	Spangler, S. Cordes, J.M. Mutel, R.L.	Iowa Cornell Iowa	Investigation of shock associated turbulence in two supernova remnants		6,13,20	23,25	24.0
BS125	Snellen, I. Dunlop, J. Floyd, D. Kukula, M. McLure, R.	IfA IfA IfA IfA IfA	Relationship between radio core properties and black hole mass in radio loud quasars		6,20	31	7.50
GC023	Charlot, P. Lestrade, J-F. Pradel, N.	Bordeaux Obs. de Paris Bordeaux	Phase reference astrometry of compact symmetric objects		4	24	24.0
	Staff	NRAO	Maintenance				95.5

The average downtime was 19.0 hours (4%)

Actual observing time was 450.75 hours

The VLBA was scheduled 82.0% of the time 593.75 hours of a possible
720.0 hours

Astronomical Observations = 65.0% (469.75 hours)
 Tests and Calibrations = 8.0% (56.00 hours)
 Maintenance = 9.0% (68.00 hours)