

VLA Utilization Report December 1994

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AA176	Avery, L. Bell, M. Feldman, P. MacLeod, J.	NRC, Herzberg High Altitude Obs High Altitude Obs High Altitude Obs	Search for large molecules in low-density ISM	2, 3.6 line	8	8.0
AB705	Burke, B. Becker, D. Lehar, J. Hewitt, J. Roberts, D.	MIT MIT Cambridge MIT Brandeis	Time delay of the gravitational lens 0957+561	3.6, 6	8	2.0
AB725	Bastian, T. Chiuderi-Drago, F. Alissandrakis, C.	NRAO-Socorro Florence Athens	Search for linearly polarized microwave emission from the sun	3.6, 6 line	1,3,6,9,15, 19,26	13.2
AB729	Bloemhof, E.		Radio survey of herbig-haro objects	3.6	13	10.5
AC385	Chen, H. Umemoto, T. Zhao, J.-H.	CFA Nobeyama Obs CFA	Shock morphology near young stars and pre-protostellar clumps	1.3 line	29	10.5
AC396	Cox, A. Sparke, L. van Moorsel, G.	NRAO-Socorro Wisconsin NRAO-Socorro	6cm continuum survey of polar-ring galaxies	6	15	1.5
AC399	Cayatte, V. Balkowski, C. Boselli, A. van Gorkom, J.	Paris Obs Paris Obs Paris Obs Columbia	HI Distribution in the anemic galaxy NGC 4548	20 line	20	5.0
AC404	Codella, C. Cesaroni, R. Testi, L.	Florence Arcetri Florence	NH3 observations towards H2O masers	1.3 line	11	8.0
AC405	Charmandaris, V. Appleton, P.	Iowa State Iowa State	Preliminary HI mapping of the ring galaxies Arp 10 and VIIZw466	20 line	3,	12.0
AC406	Herold, L. Conner, S. Burke, B.	MIT MIT MIT	Large-angular-size sources in the MG-VLA lens search sample	3.6, 6 line	10	12.0
AC407	Curiel, S. Canto, J. Eiroa, C.	CFA Mexico/UNAM Madrid	Circumstellar disk structures around very YSOs	0.7, 1.3	10, 22	8.0
AC408	Cox, A. Sparke, L. van Moorsel, G.	Wisconsin Wisconsin NRAO-Socorro	HI mapping of the polar-ring galaxies NGC 5122 & UGC 9562	20 line w/Tests	2	9.3
AD349	Durouchoux, P. Chapuis, C. Dwarakanath, K. Wallyn, P.	CNRS, France CNRS, France NRAO-Socorro CNRS, France	Search for structures in radio counterpart of EXS 1737-2952	6, 20	23	4.0
AD350	De Pree, C. Cecil, G. Goss, W. M. Mehring, D.	NRAO-Socorro North Carolina NRAO-Socorro Illinois	H92alpha and He92alpha observations of K3-50A	3.6 line	3	6.5
AF246	Frail, D. Cornwell, T. Goss, W. M.	NRAO-Socorro NRAO-Socorro NRAO-Socorro	Does the crab have a shell?	90	26, 28	5.7
AF263	Feretti, L. Bridle, A. Giovannini, G. Laing, R. Parma, P. Perley, R.	Bologna NRAO-CV Bologna RGO Bologna NRAO-Socorro	Tests for kpc-scale jet deceleration using 3C 31	3.6, 6, 20	4	8.0
AF275	Fomalont, E. Kellerman, K. Partridge, B. Windhorst, R.	NRAO-CV NRAO-CV Haverford College Arizona State	High resolution image of deep field at 8.4 GHz	3.6 line	4, 6, 9, 29	41.0
AG402	Golla, G. Dettmar, R. Hummel, E. Kronberg, P.	MPIR, Bonn STScI Royal Obs Toronto	Filamentary radio halos of NGC 4632 and UGC 9579	6, 20	1	8.0
AG412	Grossman, A. Clancy, R. Muhleman, D.	Maryland Colorado Caltech	Mapping seasonal variation of Mars water vapor	1.3 line	26	11.0
AG428	de Geus, E. Phillips, J. van Langevelde, H.	Caltech Caltech NRAO-Socorro	Search for CS absorption in the outer galaxy	0.7, 6 line	14	5.1
AG432	van Gorkom, J. Dwarakanath, K.	Columbia NRAO-Socorro	HI imaging of cluster Abell 2670	20 line	19	7.0
AH492	Hjellming, R. Gehrz, R. Seaquist, E. Taylor, R.	NRAO-Socorro Minnesota Toronto NRAO-Socorro	Image and light curve evolution of radio novae	1.3, 2, 3.6, 6, 20 w/Tests	2,3,5,8,17,2 2,30	7.0

VLA Utilization Report December 1994

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AH514	Ho., P.	CFA	Contracting molecular cloud core in G10.6-0.4	0.7 line	20	4.0
AH519	Hoffman, G. Salpeter, E.	Lafayette College Cornell	Neutral hydrogen mapping of condensations in NGC 4532/DDO 137 system	20 line w/Tests	8	8.0
AH521	Herbig, T. Myers, S. Readhead, T.	Princeton Caltech Caltech	Discrete radio sources in a complete sample of SZ effect clusters	3.6, 20	30	19.5
AH523	Higdon, J. Wrobel, J.	NRAO-Socorro NRAO-Socorro	HI observations of Arp 102 and Arp 104 elliptical/spiral pairs	20 line	24	12.0
AH524	Hoernes, P. Beck, R. Berkhuijsen, E.	MPIR, Bonn MPIR, Bonn MPIR, Bonn	Polarization and RM in the SW arms of M31	20 w/BC014	18	6.0
AH527	Hibbard, J. Yun, M.	Hawaii Caltech	Mapping tidal HI in ultraluminous IR galaxies	20 line	10, 13, 15	24.0
AH532	Holdaway, M. Beasley, T. Owen, F. Rupen, M.	NRAO-Socorro NRAO-Socorro NRAO-Socorro NRAO-Socorro	VLA calibrator sources at 43 GHz	0.7, 1.3, 3.6	27	10.0
AI055	Iverson, R. Eales, S. Papadopoulos, P. Seaquist, E.	Royal Obs Toronto Toronto Toronto	Search for CO 1->0 in the most distant known galaxy	1.3 line	1, 15, 16, 17	30.1
AJ242	Jones, M. Birkinshaw, M. Grainge, K. Saunders, R.	Cambridge CFA Cambridge Cambridge	Diffuse emission in clusters of galaxies	20	5,	5.5
AK364	Kollgaard, R. Feigelson, E. Pesce, J. Urry, C. Wehrle, A.	Penn State Penn State STScI STScI IPAC	Intensive radio monitoring of the blazar 3C 279	1.3, 2, 3.6, 6, 20	10, 16	2.5
AK369	Kenny, H. Iverson, R. Seaquist, E. Taylor, R.	Canadian Military Royal Obs Toronto NRAO-Socorro	CH Cygni: Monitoring of the radio jet in outburst	1.3, 3.6	10	2.0
AK373	Koerner, D. Chandler, C. Sargent, A.	Caltech NRAO-Socorro Caltech	Radial structure and dust properties of protoplanetary disks	0.7, 1.3	5, 6	16.0
AK374	Kundu, M. Robinson, R. White, S. Woodgate, B.	Maryland NASA/GSFC Maryland NASA/GSFC	Coordinated HST, EUVE, and VLA observations of YZ C Mi	3.6, 6, 20	21	10.5
AK376	Kulkarni, S. Frail, D.	Caltech NRAO-Socorro	Search for the radio counterparts of gamma ray bursters		5, 22	7.5
AL335	Longair, M. Best, P. Riley, J. Rottgering, H.	Cambridge Cambridge Cambridge Cambridge	Large-scale structure of 3CR radio galaxies at z~1	3.6 line	5, 7	5.1
AM437	Moffett, D. Dickel, J. Dubner, G. Giacani, E. Goss, W. M. Reynoso, E. Winkler, F.	NRAO-Socorro Illinois IAFE IAFE NRAO-Socorro IAFE Middlebury College	Expansion of Tycho's SNR, 3C 10	20	23	7.0
AM445	Moore, C. Hewitt, J.	MIT MIT	Time delays in the gravitational lens MG0414+0534	3.6	4,6,10,13,16 ,19,23,27,31	4.8
AM453	Mirabel, F. Rodriguez, L.	CNRS, France Mexico/UNAM	Brightening of the lobes of 1E1740.7-2942	6	13, 27	8.5
AM459	Mehring, D. De Pree, C. Gaume, R. Goss, W. M.	Illinois NRAO-Socorro NRL NRAO-Socorro	H66 alpha observations of W51	1.3 line	16	12.0
AM465	Mirabel, F. Rodriguez, L.	CNRS, France Mexico/UNAM	Superluminal source GRS 1915+105	3.6, 20	2, 9, 18, 29	9.5
AP300	Phookun, B. McGaugh, S.	NCRA, Pune Cambridge	Radio emission at 1.5 GHz from low-surface-brightness galaxies	20 w/Move/Op	20	10.0
AR310	Rudnick, L. Keohane, J. Perley, R.	Minnesota Minnesota NRAO-Socorro	Evolutionary studies of Cas A	6, 20	17	8.0
AR325	Rodriguez, L. Curiel, S.	Mexico/UNAM CFA	Energy sources of suspected bipolar HH objects	3.6	1, 4	6.5

VLA Utilization Report December 1994

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AS525	Sramek, R. Panagia, N. van Dyk, S. Weiler, K.	NRAO-Socorro STScI NRL NRL	The properities of radio supernovae	1.3, 2, 3.6, 6, 20	5	1.0
AT170	Thuan, T. Brinks, E. Izotov, Y. Lipovetsky, V. Pustil'nik, S.	Virginia NRAO-Socorro Ukraine Russia Russia	HI mapping of extremely metal-deficient blue compact galaxies	20 line	26, 30	14.0
AU058	Urbanik, M. Beck, R. Braine, J. Soida, M.	Poland MPIR, Bonn MPIR, Bonn Poland	Magnetic field in the flocculent galaxy NGC 4414	6, 20	17	4.0
AW362	White, S.	Maryland	The stellar activity cycle on active stars	3.6, 6, 20 w/Move/Op	19	2.0
AW389	Weiner, B. Sellwood, J. van Gorkom, J. Williams, T.	Rutgers Rutgers Columbia Rutgers	Mapping the dark matter in barred spiral galaxies	20 line w/BC014	18, 19	15.9
AW393	Wilcots, E. Miller, B.	NRAO-Socorro Washington	HI observations of barred magellanic type galaxies	20 line	12	10.0
AW395	White, S. Cully, S. Lim, J.	Maryland UC, Berkeley Caltech	White dwarf/red dwarf binary V471 Tauri	2, 3.6, 6	1, 2	24.0
AX003	Xu, W. Pearson, T. Readhead, T. Taylor, G.	Caltech Caltech Caltech Caltech	Search for faint extended structure in compact symmetric sources	20 w/Move/Op	12, 20	7.0
AZ068	van Zee, L. Broeils, A. Haynes, M. Salzer, J.	Cornell Cornell Cornell Wesleyan U.	HI mapping of extreme Mh/L galaxies	20 line	9, 12	16.0
BC014	Cotton, W. Dallacasa, D. Fanti, C. Fanti, R. Foley, A. Spencer, R	NRAO-CV NFRA Bologna Bologna NFRA Manchester	3C138 & 3C286	6 w/AH524, Tests, AW389	18	18.5
BM010	Molnar, L. Mutel, R.	Iowa Iowa	Interstellar scattering in Cygnus X	6 Phased array VLBI	31	14.0
BR002	Rendong, N. Gabuzda, D. Inoue, M. Kameno, S.	Beijing Obs Calgary Nobeyama Obs Nobeyama Obs	VLBI polarimetry of the high rotation measure source 3C119	3.6 Phased array VLBI	11	4.0
GRO04	Rupen, M. Bartel, N. Altunin, V. Beasley, T. Bietenholz, M. Cannon, W. Conway, J. Davis, R. Graham, D. Jones, D. Panagia, N. Popelar, J. Rius, A. Romney, J. Sramek, R. Titus, M. Umaña, G. van Dyk, S. Venturi, T. Weiler, K.	NRAO-Socorro York U. JPL NRAO-Socorro York U. York U. NRAO-Socorro NRAL MPIR, Bonn JPL STScI Ottawa Madrid NRAO-Socorro NRAO-Socorro Haystack Noto NRL Bologna NRL	1993J in M81	2, 3.6, 6 Phased array VLBI	22	16.0
	Staff	NRAO	Baselines, Pointing, Delays Maintenance Move/Operations Holiday Operations Software General tests		...	37.0 36.4 7.5 33.8 38.3 39.8 40.6

The average downtime for the month of December 1994 was approximately 2.3%.
The array was scheduled 95.5% (712.2 hours) of the time:e)
74.8% (557.7 hours) to astronomical programs
10.5% (78.3 hours) to scheduled test calibration
10.2% (76.2 hours) to scheduled maintenance

The array was in C configuration from December 1 through 31

Total number of programs for December 1994 was 61

The following independant proposales shared simultaneous observing time (29.8 hours):

Projects	Hours
AC408/Tests	1.5
AH519/Tests	2.0
AH519/Tests	2.0
AH524/BC014	5.5
AP300/Move/Op	3.0
Move/Op/AW362	1.5
Move/Op/AX003	3.0
Software/BC014	0.0
AW389/BC014	8.0
Tests/BC014	5.0

VLA Utilization Report November 1994

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AA156	Antonucci, R.	Calif., Santa Barbar	Molecular Gas in high-redshift quasars		30	3.7
AA182	Afflerbach, A. Churchwell, E.	Wisconsin Wisconsin	H93 observations of twenty ultra-compact HII regions	3.6 line	11, 23	5.6
AB705	Burke, B. Becker, D. Lehar, J. Hewitt, J. Roberts, D.	MIT MIT Cambridge MIT Brandeis	Time delay of the gravitational lens 0957+561	3.6, 6	7	2.0
AB718	Brinks, E. Kunth, D. Lequeux, J. Mas-Hesse, M. Sargent, W.	NRAO-Socorro IAP, Paris Meudon LAE, Madrid Caltech	Neutral gas in blue compact galaxies	20 line	1	9.0
AB728	Baumgardt, K. Broeils, A. Haynes, M.	Cornell Cornell Cornell	HI study of the internal kinematics of Sa galaxies	20 line	1,8	24.7
AB731	Barnbaum, C. Zuckerman, B. Palmer, P.	NRAO-CV UCLA Chicago	Ultra-cold molecular clouds in the outer galaxy?	6, 20 line w/BD005	7	13.0
AC396	Cox, A. Sparke, L. Van Moorsel, G.	Wisconsin Wisconsin NRAO-Socorro	6cm continuum survey of polar-ring galaxies	6 w/GZ011	22	3.5
AC410	Conway, J. Taylor, G. Readhead, A.	NRAO-Socorro Caltech Caltech	Search for molecular and atomic absorption in compact symmetric objects	6, 20 line w/GZ011	4, 22	5.5
AD324	De Pree, C. Goss, W. M. Mehring, D.	NRAO-Socorro NRAO-Socorro Illinois	H92alpha and H66alpha radio recombination line obs of W49	3.6 line	4	8.0
AD346	Dahlem, M.	Johns Hopkins	Extent of the radio halo of NGC 4666.	20	20	6.0
AD349	Durochoux, P. Dwarakanath, K.S. Wallyn, P. Chapuis, C.	Saclay NRAO-Socorro Saclay Saclay	Search for structures in radio counterpart of EXS 1737-2952	6, 20	14	3.0
	Beasley, T.	NRAO-Socorro	ADHOC		12	2.6
AE097	Eilek, J. Loken, C. Owen, F.	NMIMT New Mexico State NRAO-Socorro	The ends of type FR I radio tails	90	19	11.0
AE099	Edge, A. Crawford, C. Fabian, A. Allen, S. Bohringer, H. Voges, W.	Cambridge Cambridge Cambridge Cambridge MPE MPE	Radio observations of X-ray selected clusters at redshifts of 0.15	6	13	10.0
AF263	Feretti, L. Giovannini, G. Parma, P. Laing, R. Bridle, A. Perley, R.	Bologna Bologna Bologna RGO NRAO-CV NRAO-Socorro	Tests for kpc-scale jet deceleration using 3C 31	3.6, 6, 20	25	6.0
AF275	Fomalont, E. Kellermann, K. Partridge, B. Windhorst, R.	NRAO-CV NRAO-CV Haverford College Arizona State	High resolution image of deep field at 8.4 GHz	3.6 line w/BC024	5, 6, 11, 12, 25	40.2
AH492	Hjellming, R. Gehrz, R. Seaquist, E. Taylor, A.	NRAO-Socorro Minnesota Toronto NRAO-Socorro/Calgary	Image and light curve evolution of radio novae	1.3, 2, 3.6, 6, 20	1, 7, 11, 18, 23	6.8
AH525	Higdon, J. Ghigo, F.	NRAO-Socorro NRAO-GB	HI in the Ring Galaxy NGC 2793	20 line	3	4.0
AH529	Holdaway, M. Rupen, M. Conway, J. Beasley, A. Owen, F.	NRAO-Socorro NRAO-Socorro NRAO-Socorro NRAO-Socorro NRAO-Socorro	Simultaneous spectra of AGN in 1mm to 4cm wavelength range	0.7, 1.3, 3.6	14	12.5
AK365	Kliem, B. Aschwanden, M.J. Mazets, E.P. Krugger, A.	Potsdam Maryland St. Petersburg Potsdam	Joint VLA-CGRO-CORONAS observations of small-scale solar structure	20, 90	4, 7	8.0
AK373	Koerner, D. Sargent, A. Chandler, C.	Caltech Caltech NRAO-Socorro	Radial structure and dust properties of protoplanetary disks	0.7, 1.3	28	8.0

VLA Utilization Report November 1994

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AL343	Lang, K. Willson, R. Kile, J. Gelfreikh, G. Bogod, V.	Tufts Tufts Tufts Pulkova, Russia SAO, Russia	Investigations of long-lasting nonthermal sources on the sun	20, 90	3	4.5
AM445	Moore, C.B. Hewitt, J.N.	MIT MIT	Time delays in the gravitational lens MG0414+0534	3.6	3, 7, 10, 13, 16 21, 23, 30	4.5
AM461	Mundell, C. Pedlar, A. Meaburn, J. Brinks, E. Baum, S. O'Dea, C. Gallimore, J.	Manchester Manchester Manchester NRAO-Socorro STSci STSci Maryland	HI observations of Seyfert galaxies NGC 3281, NGC 3982, NGC 5728	20	19	6.0
AM463	McMahon, R.G. Lonsdale, C.J. Rowan-Robinson, M. Beeharry, G. Lehar, J.	Cambridge Caltech-IPAC Imperial Cambridge Cambridge	Search for high redshift infrared luminous galaxies	20	8, 9, 17	8.0
AM464	Magnier, E.A. Prins, S. Fox, D. Lewin, W.H.G. Paradijs, J.V.	Amsterdam, U. of Amsterdam, U. of MIT MIT Amsterdam, U. of/Hun	6 & 20 cm study of large-diameter SNRs in M31	6, 20	1, 3	21.1
AM465	Mirabel, F. Rodriguez, L.F.	CNRS, France Mexico/UNAM	Superluminal source GRS 1915+105	3.6, 20 w/BC024	5, 15, 25	6.5
AP302	Pooley, G.G. Hardcastle, M.J. Alexander, P. Riley, J.M.	Cambridge Cambridge Cambridge Cambridge	Jets in nearby FRI radio galaxies	3.6, 20	9, 14	7.1
AR323	Reipurth, B. Rodriguez, L.	ESO Mexico/UNAM	New extremely YSO sources	3.6	16	8.0
AR325	Rodriguez, L.F. Curiel, S.	Mexico/UNAM Cfa	Energy sources of suspected bipolar HH objects	3.6	30	2.5
AS525	Sramek, R. Weiler, K. Van Dyk, S. Panagia, N.	NRAO-Socorro NRL NRL STSci	The properites of radio supernovae	1.3, 2, 3.6, 6, 20	7	3.5
AS536	Schiminovich, D. van Gorkom, J. van der Hulst, J.	Columbia Columbia Groningen/Kapteyn	HI observations of shell galaxies	20 line w/BC024	5, 6	16.0
AS542	Scheuer, P.A.G. Laing, R.A. Dennet-Thorpe, J. Bridle, A.H.	Cambridge RGO Cambridge NRAO-CV	Jet and spectral index asymmetries in nearby FRII radio galaxies	3.6, 6, 20	25, 27	15.0
AS545	Szomoru, A. van Gorkom, J.H. Gregg, M.	Groningen/Kapteyn Columbia Lawrence Livermore	HI Imaging of galaxy groups in the Bootes void	20 line	15, 18, 25	21.5
AT166	Taylor, G. Ge, J.P. Barton, E.J.	Caltech Brandeis Caltech	Faraday rotation in cooling flow clusters A119, 3C129	3.6, 6	2	6.2
AT172	Thornley, M. Mundy, L.	Maryland Maryland	Cold gas on sub-kiloparsec scales in nearby flocculent galaxies	20 line w/GZ011	22	8.0
AT174	Tereby, S.	Caltech	Low-mass protostellar source L1448 IRS3	0.7, 1.3 line	15	9.0
AT176	Thorsett, S.E. Taylor, J.H. McKinnon, M.M. Hankins, T.H. Stinebring, D.R.	Princeton Princeton NRAO-GB NMIMT Oberlin College	Timing fast pulsars at the VLA	6, 20, 90	19, 20	12.0
AV200	Vasisht, G. Kulkarni, S. Thorsett, S. Rappaport, S.	Caltech Caltech Princeton MIT	Search for pulsars in massive binaries	20	1	1.5
AW391	Wood, D. Chandler, C.	NRAO-Socorro NRAO-Socorro	CS J =1 -> 0 Observations of the Orion molecular ridge	0.7 line	17	10.0
AW392	Wood, D. Chandler, C.	NRAO-Socorro NRAO-Socorro	Prestellar clumps in Orion	0.7	21	8.7
AW393	Wilcots, E. Miller, B.	NRAO-Socorro Washington	HI observations of barred magellanic type galaxies	20 line	27	15.0
AW394	Wootten, A. Bach, T. Rieu, N. Latter, W.	NRAO-CV Paris Paris NRAO-Tucson	Distribution of cyanopolyne molecules in CRL 2688	0.7 line	12	4.0

VLA Utilization Report November 1994

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AY066	Young, L.	Illinois	HI in three local group dwarf galaxies: NGC 185, NGC 205, LGS 3.	20 line	11, 18, 20	20.6
BB020	Briggs, F. Taramopoulos, A.	Pittsburgh Pittsburgh	Infalling, absorption line gas	20 Phased array VLBI	26	28.0
BC024	Conway, J. Cornwell, T. Briggs, D. Walker, C.	NRAO-Socorro NRAO-Socorro NRAO-Socorro NRAO-Socorro	L-band multi-frequency synthesis of 3C48	20 Single antenna VLBI w/AF275, AM465, AS536, BD5, BK8	5	14.0
BD005	Dallacasa, D. Cotton, W.D. Fanti, C. Fanti, R. Schilizzi, R.T. Spencer, R.E.	NFRA NRAO-CV Bologna Bologna NFRA Manchester	Compact steep-spectrum galaxies 1819+39 & 0404+76	6, 20 Single antenna VLBI w/BC24, AB731	3,6,7	25.1
BG012	Giovannini, G. Feretti, L. Venturi, T. Wehrle, A.	Bologna Bologna Bologna JPL	NGC 315 and 3C 338	6 Phased array VLBI	17	12.0
BG020	Gwinn, C. Greenhill, L. Antonucci, R. Barvainis, R.	Calif., Santa Barbar Cfa Calif., Santa Barbar Haystack	Water masers in a hidden seyfert nucleus: NGC 1068	1.3 Phased array VLBI	4	8.0
BK008	Kemball, A. Diamond, P.J.	NRAO/Socorro NRAO-Socorro	SiO masers in VY CMa: Polarization calibration	0.7 line w/BC24	6	15.4
GL009	Lestrade, J. Phillips, R.B. Jones, D. Preston, R.A.	JPL/Paris Haystack JPL JPL	Astrometric observations of stars to tie in HIPPARCOS	3.6, 6 Phased array VLBI	22	15.4
GL015	Lonsdale, C. Diamond, P. Smith, H. Lonsdale, C.	Haystack NRAO-Socorro Calif., San Diego Haystack	Imaging of OH megamasers in 3 ultraluminous infrared galaxies	18 Phased array VLBI	13	21.9
GL016	Lonsdale, C. Diamond, P. Smith, H.	Haystack NRAO-Socorro Calif., San Diego	Survey for compact OH megamaser emission in IR galaxies	20 Phased array VLBI	10	14.4
GZ011	Zensus, A. Lobanov, A. Leppanen, K. Unwin, S. Wehrle, A.	MPIR, Bonn NRAO-Socorro NRAO-Socorro Caltech JPL	Monitoring the parsec scale jet structure of 3C345	3.6 Single antenna VLBI w/AT172, AC410, AC396	22	14.0
	Staff	NRAO	Maintenance Operations Software Standard Field Observation General Tests Thanksgiving - No observing		... 23, 24	58.4 47.0 30.7 6.0 40.0 23.9

The average downtime was 4.7%.

The array was scheduled for
 517.7 hours (71.7% of time) for astronomical programs
 91.3 hours (12.6% of time) for tests/calibration
 89.1 hours (12.3% of time) for maintenance
 Total 96.7% hours (698.1%) scheduled.

Array was in configuration C from November 1 to November 30.

Total Number of astronomical programs was 54.

The following independent proposals shared simultaneous observing time (52.1 hours total simultaneous observing):

Projects	Hours
AB731/BD005	12.0
AC396/GZ011	2.7
AC410/GZ011	3.5
AF275/BC024	0.3
AM464/BD005	8.8
AM465/BC024	2.0
AS536/BC024	8.0
AT172/GZ011	7.8
BD005/BC024	1.0
BK008/BC024	2.7
Tests/BD005	3.3

VLA Utilization Report October 1994

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AA177	Afflerbach, A. Churchwell, E.	Wisconsin Wisconsin	Radio recombination lines toward G10.62 & G29.96	1.3, 2 line	17	4.5
AA181	Alexander, P. Green, D. Clemens, M.	MRAO MRAO MRAO	Star-formation history in interacting galaxies NGC 4490/NGC 4485	3.6, 6, 20 line	18	8.0
AB705	Burke, B. Becker, D. Lehar, J. Hewitt, J. Roberts, D.	MIT MIT Cambridge MIT Brandeis	Time delay of the gravitational lens 0957+561	3.6, 6	10	2.0
AB727	Bosma, A. Freeman, K. Athanasoula, E.	Marseille Obs Mt. Stromlo Marseille Obs	HI in two low surface brightness giant spiral galaxies	20	2, 4	14.0
AB732	van Breugel, W. Lehnest, M. Day, A.	Lawrence Livermore Lawrence Livermore Calif., Berkeley	Flux measurements of radio-loud IRAS galaxies and quasars	6, 20	27	3.0
AC396	Cox, A. Sparke, L. van Moorsel, G.	Wisconsin Wisconsin NRAO-Socorro	Continuum survey of polar ring galaxies	6	1	6.0
AC400	Claussen, M. Beasley, T. Sahai, R.	NRAO-Socorro NRAO-Socorro JPL	Radio continuum and water maser emission from proto-planetary	1.3, 3.6 line	5, 6	6.1
AC401	Crutcher, R. Fiebig, D. Troland, T.	Illinois Heidelberg Kentucky	Zeeman observations of H2O masers	1.3 line	2	8.5
AD341	Dettmar, R. Domgorgen, H. Dahlem, M.	STSci Bonn U. Johns Hopkins	ISM in NGC 2188: A Case study for disk-halo interaction	20 line	1, 2	10.0
AD344	dePater, I. Heiles, C. Bolton, S. Klein, M.	Calif., Berkeley Calif., Berkeley JPL JPL	Comet-Jupiter crash	20, 90	16	9.0
ADHOC1	Leppanen, K.	NRAO-Socorro	ADHOC		17	3.0
AF279	Frail, D. Goss, M.	NRAO-Socorro NRAO-Socorro	Deep VLA imaging around PSR 1823-13	90	1	6.0
AF280	Frail, D. Bietenholz, M. Markwardt, C. Ogelman, H.	NRAO-Socorro York U Wisconsin Wisconsin	Matched radio/X-ray images in the vicinity of the vela pulsar	90	3	5.0
AG421	Gaume, R. Fischer, J.	NRL NRL	Monitoring the radio continuum flux density of NGC 2024-IRS2	1.3, 2, 3.6	24	2.0
AG423	Gopalswamy, N. Kundu, M.	Maryland Maryland	Investigation of umbral oscillations in sunspots	w/BG006	23, 29	12.0
AG425	Ghigo, F. Appleton, P.	NRAO-GB Iowa State	Multi-wavelength continuum maps of ring galaxies	3.6, 6, 20	28	8.0
AG429	Gopalswamy, N. Kundu, M. Schmahl, E.	Maryland Maryland Maryland	Evolution of coronal streamers	20, 90	21, 28, 30	11.8
AG430	Guedel, M. Schmitt, J. Kurster, M. Hatzes, A.	Switzerland MPIfEP, Garching MPIfEP, Garching Texas	Time-variable phenomena in the coronae of castor A+B+C	6	4,11,13,14,16,18,19,21	12.0
AG432	van Gorkom, J. Dwarakanath, K. Guhathakurra, P.	Columbia NRAO-Socorro Calif., Santa Cruz	HI imaging of cluster Abell 2670	20 line w/BG006	15-18,20,22-24,27-29	64.5
AG435	Gregorini, L. de Ruiter, H. Parma, P. Vetolani, G. Sadler, E. Ekers, R.	Bologna Bologna Bologna Bologna Sydney ATNF	Dumbbell and multiple nuclei galaxies in rich clusters	6 w/BG006	29	1.5
AH492	Hjellming, R. Gehrz, R. Seaquist, E. Taylor, A.	NRAO-Socorro Minnesota Toronto NRAO-Socorro/Calgary	Image and light curve evolution of radio & X-ray novae	1.3, 2, 3.6, 6, 20	3,6,9,10,14,17,22,28,31	17.4
AH520	Hoffman, G. Salpeter, E.	Lafayette Cornell	Neutral hydrogen mapping of MCG 0-32-16, near line of sight to 3C 273	20 line	24	2.0
AH524	Hoernes, P. Berkhuijsen, E. Beck, R.	MPIR, Bonn MPIR, Bonn MPIR, Bonn	Polarization and RM in the SW arms of M31	20 w/BG006	29	12.0
AH525	Higdon, J. Ghigo, F.	NRAO-Socorro NRAO-GB	HI in the Ring Galaxy NGC 2793	20 line	24	4.0

VLA Utilization Report October 1994

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AH528	Havaneck, M. Stocke, J. Ellingson, E.	Colorado Colorado Colorado	Morphology of 3CR radio galaxies at z=0.15-0.65	3.6	21	6.0
AH530	Ho, P. Zhang, Q. Peng, Y. Vogel, S.	CFA CFA Maryland Maryland	Contracting molecular cloud cores	1.3 line	2, 3	12.0
AH533	Holdaway, M. Owen, F. Rupen, M. Conway, J.	NRAO-Socorro NRAO-Socorro NRAO-Socorro NRAO-Socorro	3CR cores at 8.4 and 43 GHz	0.7, 3.6 w/BG006	29	8.0
AI054	Irwin, J. Giguerre, D.	Queens Queens	High z HI in the Edge-on Galaxy, NGC 3556	20 line	22	12.0
AJ238	Johnston, K. Gaume, R. Nedoluha, G. Wilson, T. Collison, A.	USNO NRL NRL MPIR, Bonn Illinois	Spatial structure of Orion CH3OH maser	1.3 line	23	4.0
AJ241	Jorsater, S. van Moorsel, G. Kristen, H.	Stockholm Obs NRAO-Socorro Stockholm Obs	HI observations of a sample of bright barred spiral galaxies	20 line	7, 8	20.0
AJ243	Jackson, J. Kraemer, K.	Boston Boston	NH3 toward NGC 6334 F: Shock excited masers?	1.3 line	7	6.0
AK331	Kobulnicky, C. Dickey, J. Conti, P.	Minnesota Minnesota Colorado	Spectral index mapping of Wolf-Rayet galaxies	3.6, 6	23	2.0
AK368	Kaufman, M. Brinks, E. Elmegreen, B. Elmegreen, D. Struck-Marcell, C.	Ohio State NRAO-Socorro IBM Vassar Iowa State	Radio continuum observations of ocular and caustic galaxies	6, 20	21	6.0
AK369	Kenny, H. Taylor, R. Iverson, R. Sequist, E.	Canadian Military NRAO-Socorro/Calgary Royal Obs Toronto	CH Cygni: Monitoring of the radio jet in outburst	1.3, 3.6	20	2.1
AK372	Knapp, G.	Princeton	Continuum observations of evolved stars	2, 3.6, 6	14	3.5
AL337	Lim, J. White, S. Nelson, G.	Caltech Maryland ATNF	dMe flare star AT MIC	3.6, 6, 20	9, 10	14.0
AL343	Lang, K. Willson, R. Kile, J. Gelfreikh, G. Bogod, V.	Tufts Tufts Tufts Pulkova Obs Special Astrophys.	Investigations of long-lasting nonthermal sources on the sun	20, 90	28, 30, 31	12.2
AM445	Moore, C. Hewitt, J.	MIT MIT	Time delays in the gravitational lens MG0414+0534	3.6	1, 5, 12, 18, 22, 30	3.0
AM460	Mehringer, D. Kuan, Y-J. Miao, Y. Snyder, L.	Illinois Illinois Illinois Illinois	Vinyl cyanide and methly formate in Sgr B2	w/BB014	8	7.0
AM461	Mundell, C. Pedlar, A. Meaburn, J. Brinks, E. Baum, S. O'Dea, C. Gallimore, J.	Jodrell Bank Jodrell Bank Manchester NRAO-Socorro STScI STScI STScI	HI observations of Seyfert galaxies NGC 3281, NGC 3982, NGC 5728	20	1	7.0
AM462	Molinari, S. Brand, J. Cesaroni, R. Palla, F. Palumbo, G.	Bologna Bologna Arcetri Arcetri Bologna	Radio-continuum obserations of very young massive stars	2, 6	3	5.0
AM464	Magnier, E. Prins, S. Fox, D. Lewin, W. Paradijs, J.	Amsterdam, U. Amsterdam, U. MIT MIT Amsterdam/Huntsville	Large-diameter SNRs in M31	6, 20	31	6.5
AM465	Mirabel, F. Rodriguez, L.	CNRS, France Mexico/UNAM	Superluminal source GRS 1915+105	3.6, 20	6, 15, 21, 27	8.5
AM466	Mirabel, I. Duc, P-A. Brinks, E.	CNRS, France CNRS, France NRAO-Socorro	HI in the merger Arp 105	20 line	20, 27	16.0

VLA Utilization Report October 1994

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
A0120	Onello, J. Phillips, J. DePree, C. Goss, M.	SUNY/Cortland Caltech NRAO-Socorro NRAO-Socorro	RRL observations of a cold HII region in G70.7+1.2	20 line	13	10.0
A0121	van Ojik, R. Carilli, C. Rottgering, H. Miley, G.	Leiden Leiden Cambridge Leiden	CO (1-0) Observations of a radio galaxy at z=3.6	1.3 w/BB014	8, 9, 14	18.0
AR311	Reynolds, S. Jenkins, G. Kassim, N. Moffett, D.	North Carolina St. North Carolina St. NRL NRAO-Socorro	330 MHz observations of bright supernova remnants	90	23, 24	12.0
AR317	Ratner, M. Lestrade, J-F. Lebach, D. Shapiro, I.	CFA JPL/Paris CFA CFA	Monitor IM Peg, Lambda, for NASA/Standford gravity probe-B use	3.6	4, 8	2.0
AR322	Rottgering, H. Snellen, I. Miley, G. Hanisch, R. Perley, R.	Cambridge Leiden Leiden STScI NRAO-Socorro	VLA observations of the rich x-ray cluster Abell 2256	90	17	8.5
AR326	Ryder, S. McIntyre, V. Zasov, A.	Alabama CFA Sternberg	Possible HI superbubble in NGC 157	20 line	26	5.0
AS525	Sramek, R. Weiler, K. Van Dyk, S. Panagia, N.	NRAO-Socorro NRL NRL STScI	The properities of radio supernovae	1.3, 2, 3.6, 6, 20	13	2.5
AS536	Schiminovich, D. van Gorkom, J. van der Hulst, J.	Columbia Columbia Groningen/Kapteyn	HI observations of shell galaxies	20 line	5, 6, 7	31.0
AS544	Scuderi, S. Panagia, N. Stanghellini, C. Umaña, G. Trigilio, C.	STScI STScI Noto Noto Noto	Radio observations of stellar winds of early type stars	2, 3.6, 6 w/Move/Op	11	12.0
AT167	Tongue, T. Westpfahl, D. Adler, D. Henning, P.	NMIMT NMIMT NRAO-Socorro New Mexico	HI mapping of M33: topology of neutral medium	20 line	19	8.3
AT177	Taylor, R.	Calgary/NRAO-Socorro	X-ray binaries - spectra from cm to mm wavelengths		14, 15	5.5
AV212	Vasisht, G. Kulkarni, S. Frail, D. Greiner, J.	Caltech Caltech NRAO-Socorro MPIfEP, Garching	Possible X-ray candidate for SGR 1900+14	3.6, 20	4	6.1
AV214	Vasisht, G. van Kerkwijk, M. Kulkarni, S.	Caltech Caltech Caltech	Enigmatic X-ray pulsar 1838.4-0301	3.6, 20	7	3.0
AH362	White, S.	Maryland	The stellar activity cycle on active stars	3.6, 6, 20	7	1.0
AH380	Wilson, T. Gaume, R. Johnston, K. Dickel, H.	MPIR, Bonn NRL USNO Illinois	Continuum emission from protostars in NGC2024 at 7mm	0.7	18	4.0
AZ069	Zlotnik, E. Zheleznyakov, V. Kundu, M. White, S.	Russia Russia Maryland Maryland	Temperature gradients in the atmosphere of sunspots	2, 3.6, 6, 20	15	12.0
BB014	Brown, R. Benson, J.	NRAO-CV NRAO-Socorro	Brightness Variations of Sgr A*	3.6, 6 Single antenna VLBI w/A0121, AM460	7	8.0
BG006	Greenhill, L. Moran, J. Phillips, R. Townes, C.	CFA CFA Haystack Calif., Berkeley	SiO maser stars. w/AG432, AH533, AG423, AG435, AH524	0.7 Single antenna VLBI	28	24.3
BW003	Wrobel, J. Bridle, A. Walker, C.	NRAO-Socorro NRAO-CV NRAO-Socorro	PC-scale structure of the twin-jet source MB4	3.6, 20	11	1.0
BW009	White, S. Mundy, L. Beasley, T.	Maryland Maryland NRAO-Socorro	The temperature of Tauri winds	3.6 Phased array VLBI	13	8.0

VLA Utilization Report October 1994

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
GR004	Rupen, M. Altunin, V. Bartel, N. Beasley, T. Bietenholz, M. Cannon, W. Conway, J. Davis, R. Graham, D. Jones, D. Panagia, N. Popelar, J. Rius, A. Romney, J. Sramek, R. Titus, M. van Dyk, S. Venturi, T. Weiler, K.	NRAO-Socorro JPL York U. NRAO-Socorro York U. York U. NRAO-Socorro Manchester MPIR, Bonn JPL STScI Ottawa DSN NRAO-Socorro NRAO-Socorro Haystack NRL Bologna NRL	1993J in M81	2, 3.6, 6 Phased array VLBI	30	15.0
	Staff	NRAO	Maintenance Move/Operations Operations Software General Tests			50.6 7.0 44.6 38.3 51.4

Average downtime: 4.5%

The array was scheduled for

Astronomical Programs: 557.7 hours (74.6% of the time)
 Test/Calibration: 100.5 hours (13.5% of the time)
 Maintenance: 88.9 hours (11.9% of the time)
 Total Scheduled: 747.1 hours (100%)

The array was in

CnB configuration from October 1 through October 12
 C configuration from October 12 through October 31
 Total number of astronomical programs: 66

The following independant proposals shared simultaneous observing time (36.2 hours total simultaneous observing):

Projects	Hours
AG423/BG006	6.0
AG423/BG006	2.5
AG435/BG006	1.5
AH524/BG006	6.3
AH533/BG006	8.0
AM460/BB014	6.0
AO121/BB014	1.0
AS544/Move/Op	4.9

Sept missing

VLA Utilization Report August 1994

Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AA169	Antonucci, R. Barvainis, R.	Calif., Santa Barbara Haystack	Nature of the optical/ultraviolet emission in AGN	1.3	22	5.0
AB628	Becker, R. Helfand, D. White, R. Perley, R.	Calif., Davis Columbia STScI NRAO-Socorro	Survey of the north galactic cap.	20	5,6,7,12,13, 14,19,21,26, 27,28	124.9
AB705	Burke, B. Becker, D. Lehar, J. Hewitt, J. Roberts, D.	MIT MIT Cambridge MIT Brandeis	Time delay of the gravitational lens 0957+561	3.6, 6	18	1.5
AB715	Bagchi, J. Kumar, A. Kapahi, V.	TIFR, Pune TIFR, Pune TIFR, Pune	Gravitationally lensed radio arcs in distant Abell clusters	20	7, 22	8.0
AB719	Brown, A. Slee, B. Jones, K. Linsky, J. Skinner, S. Stewart, R.	Colorado ATNF Queensland Colorado ISAS, Japan ATNF	Multiband observations of HR1099	3.6, 6, 20	25, 26, 27, 28	31.9
AC394	Cox, A. Sparke, L. van Moorsel, G.	Wisconsin Wisconsin NRAO-Socorro	Radio continuum survey of polar ring galaxies	20	4,13,16	10.0
AC395	Chambers, K.	Hawaii	IRAS Deep survey galaxies	6	19, 20	12.0
AC411	Camilo, F.	Princeton	Astrometry of PSR J1023+10	20	25	2.0
AD324	De Pree, C. Goss, M. Mehring, D.	NRAO-Socorro NRAO-Socorro Illinois	H92alpha and H66alpha radio recombination line obs of W49	3.6 line	26	5.0
AD339	Danner, R. Kulkarni, S. Hamilton, R.	Caltech Caltech Caltech	ROSAT deep galactic survey unusual sources	20	8	6.9
AD342	Dwarakanath, K. Owen, F.	NRAO-Socorro NRAO-Socorro	Radio emission and the Butcher-Oemler effect	20	1,4,18,21,22, 27,31	45.5
AD344	dePater, I. Heiles, C. Bolton, S. Klein, M.	Calif., Berkeley Calif., Berkeley JPL JPL	Comet-jupiter crash	20, 90	15	9.0
ADHOC1	Hjellming, R.	NRAO-Socorro	ADHOC		18	1.3
AE097	Eilek, J. Loken, C. Owen, F.	NMIMT New Mexico State NRAO-Socorro	The ends of type I radio tails	90	14, 16	12.0
AF269	Florkowski, D. Johnston, K. deVegt, C.	USNO USNO Hamburger Sternwarte	Detection survey of Algol type binary stars	3.6	4	3.5
AG402	Golla, G. Hummel, E. Dettmar, R. Kronberg, P.	Toronto Royal Obs STScI Toronto	Filamentary radio halos of NGC 4632 and UGC 9579	6, 20	23	12.0
AG413	Grossman, A. Muhleman, D. Gurwell, M.	Maryland Caltech Caltech	Impact of comet Shoemaker-Levy 9 on Jupiter	3.6, 6	16	9.0
AG420	Gaume, R. Fey, A. Claussen, M.	NRL NRL NRAO-Socorro	RRL observations of the G34.3+0.2 complex	3.6 line	21, 22	10.0
AG421	Gaume, R. Fischer, J.	NRL NRL	Monitoring the radio continuum flux density of NGC 2024-IRS2	1.3, 2, 3.6, 6	13	2.0
AH492	Hjellming, R.	NRAO-Socorro	Image and Light Curve Evolution of the Novae Puppis 1991 and Cygni 1992		24,25,26,27, 28,29,30	5.2
AH516	Higdon, J. Ghigo, F.	NRAO-Socorro NRAO-GB	HI observations of the ring galaxy NGC 2793	20 line	11	12.0
AH518	Hutchings, J. Neff, S. Gower, A.	DAO Penn State Victoria	Cosmic evolution of radio galaxies	3.6, 6, 20	17	2.0
AJ234	Jacobson, A. Mercier, C. Erickson, W.	Los Alamos Meudon Maryland	Geoplasma dynamics	90	1,2,11,13,15, 24,31	11.5
AK354	Koerner, D. Sargent, A. Chandler, C.	Caltech Caltech NRAO-Socorro	Radial structure and dust properties of protoplanetary disks	0.7, 3.6	20	5.0
AK377	Kellermann, K. Wall, J. Shaver, P.	NRAO-CV RGO ESO	Optical double quasar	3.6	16	1.0

VLA Utilization Report August 1994

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AL319	Lawrence, A. Johnson, R. Meurs, E. Carter, D. Terlevich, R. Elvis, M. Fabbiano, G.	Queen Mary Queen Mary MPIfEP, Garching RGO RGO CFA CFA	A nuclear census of nearby galaxies	20	6, 14	7.0
AL324	Laine, S. Gottesman, S.	Florida Florida	High resolution study of gas dynamics NGC 7479	20	10, 12	16.1
AL326	Lizano, S. Canto, J. Escalante, V. Gomez, Y. Rodriguez, L.	Mexico/UNAM Mexico/UNAM Mexico/UNAM NRAO-Socorro NRAO-Socorro	Search for the neutral disk of MWC 349A in absorption	0.7, 1.3, 2, 3.6, line	28	7.0
AL329	Liu, M. Skinner, C.	Calif.-Berkeley Lawrence Livermore	MWC 922, a possible Herbig Be star	3.6, 6, 20	2	2.5
AM434	Mehring, D. Goss, M. Palmer, P.	Illinois NRAO-Socorro Chicago	Search for 6cm formaldehyde masers in methanol emission regions	6 line	18	10.0
AM437	Moffett, D. Reynolds, S. Dubner, G. Giacani, E. Reynoso, E. Dickel, J. Goss, M. Winkler, F.	NRAO-Socorro North Carolina St. IAFE, Buenos Aires IAFE, Buenos Aires IAFE, Buenos Aires Illinois NRAO-Socorro Middlebury College	Expansion of Tycho's SNR, 3C 10	20	5	7.0
AM445	Moore, C. Hewitt, J.	MIT MIT	Time delays in the gravitational lens MG0414+0534	3.6	4,8,11,14,17 20,22,25,29	5.1
AM446	Mirabel, F. Rodriguez, L.	CNRS, France NRAO-Socorro	GRS1915+105: Possible hard X-ray counterpart of a soft gamma repeater	3.6, 20	1, 8, 15, 24	8.1
AM458	Mundy, L. Blake, G.	Maryland Caltech	NGC 1333 IRAS 4: dust emission	0.7	12	6.0
AO117	Olling, R. Rupen, M. van Gorkom, J.	Columbia NRAO-Socorro Columbia	The edge-on dwarf galaxy NGC 5023	20 line	1, 2	15.9
AO119	O'Dea, C. Baum, S. Gallimore, J. Maloney, P. Jackson, J.	STSci STSci STSci/Maryland Colorado Boston	Search for OH in cooling flows	20 line	2	6.0
AP253	Puche, D. Westpfahl, D. Carignan, C.	CFA NMIMT Montreal	Incipient spiral structure in UGC 2259	20 line	7	8.0
AP263	Patnaik, A. Browne, I. Muxlow, T. Wilkinson, P.	MPIR, Bonn Manchester Manchester Manchester	Monitoring the gravitational lens B1422+23.1	2	4,8,11,14,18 22,25,31	5.5
AP296	Preston, R. Folkner, W.	JPL JPL	Earth based observation of Galileo probe for jupiter wind estimation: phasing tests.	3.6	25	1.0
AP299	Purcell, W. Yusef-Zadeh, F. Ulmer, M.	Northwestern Northwestern Northwestern	Search for radio emission around the pulsar 1952+29	3.6, 20	1, 4	4.0
AR311	Reynolds, S. Jenkins, G. Kassim, N. Moffett, D.	North Carolina St. North Carolina St. NRL NRAO-Socorro	330 MHz observations of bright supernova remnants	90	1, 3, 5, 6	18.0
AR317	Ratner, M. Lestrade, J. Lebach, D. Shapiro, I.	CFA JPL/Meudon CFA CFA	Monitor IM Peg, Lambda Andromedae, for NASA/Stanford gravity probe-B use	3.6	7, 27	1.0
AS525	Sramek, R. Weiler, K. Van Dyk, S. Panagia, N.	NRAO-Socorro NRL NRL STSci	The properites of radio supernovae	1.3, 2, 3.6, 6, 20	8, 22	6.6
AS536	Schiminovich, D. van Gorkom, J. van der Hulst, J.	Columbia Columbia Groningen/Kapteyn	HI observations of shell galaxies	20 line	2	8.0
AW362	White, S.	Maryland	The stellar activity cycle on active stars	3.6, 6, 20	13	2.0
AW383	Wilcots, E. Hodge, P. Miller, B.	NRAO-Socorro Washington Washington	High resolution HI study of IC10	20 line	23, 29	16.0
AW385	Wood, D. Myers, P.	NRAO-Socorro CFA	7mm survey of young stellar objects in Taurus-Auriga	0.7, 3.6	5, 6	8.0

VLA Utilization Report August 1994

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AX003	Xu, W. Taylor, G. Readhead, A. Pearson, T.	Caltech Caltech Caltech Caltech	Search for faint extended structure in compact symmetric sources	20	14	10.0
AZ067	Zhang, Q. Ho, P.	CFA CFA	Metastable ammonia masers in massive-star forming regions	1.3 line	25	6.0
BB032	Beasley, A. Gudel, M. Brown, A. Linsky, J.	NRAO-Socorro ETH, Zurich Colorado Colorado	Coordinated VLBA/VLA/ASCA/EUVE Campaign on two bright RS CVn Binaries	3.6	23,25,29	4.5
GR004	Rupen, M. Bartel, N. Conway, J. Beasley, A. Sramek, R. Altunin, V. Bietenholz, M. Cannon, W. Davis, R. Graham, D. Jones, D. Panagia, N. Popelar, J. Rius, A. Romney, J. Titus, M. Umana, G. van Dyk, S. Venturi, T. Weiler, K.	NRAO-Socorro York NRAO-Socorro NRAO-Socorro NRAO-Socorro JPL York U. York U. NRAO-Socorro MPIR, Bonn JPL STScI Ottawa IAA, Granada NRAO-Socorro Haystack Noto, Italy NRL Bologna NRL	1993J in M81	2, 3.6, 6	29	15.1
	Staff	NRAO	Holiday Maintenance Move/Operations Operations Software Standard Field Observation General Tests		17	0 61.6 0.0 65.9 36.4 6.0 24.3

The average downtime was 3.0%.

The array was scheduled for
 553.1 hours (74.1% of time) for astronomical programs
 94.8 hours (12.7% of time) for tests/calibration
 98.1 hours (13.1% of time) for maintenance
 Total 100.0% hours (746.1%) scheduled.

Array was in configuration B from August 1 to August 31.

Total Number of astronomical programs was 53.

The following independent proposals shared simultaneous observing time (2.8 hours total simultaneous observing):

Projects	Hours
adhoc/tests	1.2
AJ234/tests	1.5

VLA Utilization Report July 1994

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AA177	Afflerbach, A. Churchwell, E.	Wisconsin Wisconsin	Radio recombination lines toward G10.62 & G29.96	3.6 line	11, 13	7.0
AA178	Adler, D. Wakker, B. Westpfahl, D.	NRAO-Socorro Illinois NMIMT	HI in NGC 628	20 line	1	10.0
AB628	Becker, R. Helfand, D. White, R. Perley, R.	Calif., Davis Columbia STScI NRAO-Socorro	Survey of the north galactic cap.	20	1-5,9,10,15, 17,22-24,30, 31	146.4
AB700	Bondi, M. Dallacasa, D. Della Ceca, R. Stanghellini, C.	Manchester NFRA Johns Hopkins Noto, Italy	High sensitivity observations of radio selected BL Lac objects	20	4	7.1
AB705	Burke, B. Becker, D. Lehar, J. Hewitt, J. Roberts, D.	MIT MIT Cambridge MIT Brandeis	Time delay of the gravitational lens 0957+561	3.6, 6	6	2.0
AB717	Barvainis, R. Antonucci, R.	Haystack Calif., Santa Barbara	Test of the molecular torus model for AGNs	1.3 line	18	11.0
AC373	Chen, H. Taylor, A. Dougherty, S.	CFA Calgary Calgary	Sensitive radio survey of Be stars	3.6	1, 8, 27	11.5
AC379	Chambers, K. Swanson, J.	Hawaii Hawaii	The nature of high redshift radio galaxies	6	2, 3	6.0
AC386	Conway, J. Blanco, P. Diamond, P.	NRAO-Socorro Calif., San Diego NRAO-Socorro	Search for redshifted OH absorption/stimulated emission in FRIIs	20 line	4	3.0
AC387	Crane, P. Cowan, J. Primini, F. Roberts, D. Dickel, J.	Interferometrics Oklahoma CFA Illinois Illinois	Variability of the nuclear source in M31	3.6	9, 20	22.5
AC394	Cox, A. Sparke, L. van Moorsel, G.	Wisconsin Wisconsin NRAO-Socorro	Radio continuum survey of polar ring galaxies	20	12	4.0
AD334	Dhawan, V. Beasley, A.	NRAO-Socorro NRAO-Socorro	43 GHz fluxes and spectral indices of mm VLBI sources	0.7, 2 w/BB014	6, 16, 22	5.5
AD344	de Pater, I. Heiles, C. Bolton, S. Klein, M.	Calif., Berkeley Calif., Berkeley JPL JPL	Comet-jupiter crash	20, 90	14, 16, 19, 25	36.0
AF269	Florkowski, D. Johnston, K. de Vegt, C.	USNO USNO Hamburger-Sternwarte	Detection survey of Algol type binary stars	3.6	16, 28	8.5
AF284	Foster, R. Wolszczan, A.	NRL Penn State	Pulsar in SNR S147	20	29	1.0
AG413	Grossman, A. Muhleman, D. Gurwell, M.	Maryland Caltech Caltech	Impact of comet Shoemaker-Levy 9 on Jupiter	3.6, 6	18,20,21,26	32.2
AH492	Hjellming, R. Gehrz, R. Seaquist, E. Taylor, A.	NRAO-Socorro Minnesota Toronto Calgary	Image and light curve evolution of the novae Puppis 1991 & Cygni 1992	1.3, 2, 3.6, 6, 20	16, 17	4.0
AH515	Horellou, C. Combes, F. Casoli, F.	Meudon Meudon Meudon	Atomic gas distribution in the ring galaxy Arp 119	20 line	6	10.0
AJ234	Jacobson, A. Mercier, C. Erickson, W.	Los Alamos Meudon Maryland	Geoplasma dynamics	90	2,10,11,26, 30,31	10.0
AJ239	Jenness, T. Scott, P. Padman, R.	Cambridge Cambridge Cambridge	Studies of H2O masers in the vicinity of FIR cores	1.3	3	6.0
AJ240	Jackson, N. Bremer, M. Roland, J.	Leiden Leiden Paris	Towards an unbiased sample of high redshift galaxies	6	8, 30	4.0
AK329	Kurtz, S. Churchwell, E. Hofner, P. Wood, D.	Mexico/UNAM Wisconsin Wisconsin NRAO-Socorro	The IRAS 18032-2032 complex - an absorption distance	1.3, 3.6, 20 line	22	2.5
AK331	Kobulnicky, C. Dickey, J. Conti, P.	Minnesota Minnesota Colorado	Spectral index mapping of Wolf-Rayet galaxies	6, 20	7	1.0

VLA Utilization Report July 1994

Prog	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AK340	Kenny, H. Taylor, A. Sequist, E.	Canadian Military Calgary Toronto	Outburst flux measurements of the stellar jet source, CH Cygni	2, 6, 20	26	2.0
AK350	Kellermann, K. Shaver, P. Wall, J.	NRAO-CV ESO Cambridge	High z quasars	3.6 w/BB014	7	1.0
AK353	Kronberg, P. Sawicki, M. Dyer, C. Perley, R.	Toronto Toronto Toronto NRAO-Socorro	Polarization symmetry-breaking due to lensing	3.6, 6	8, 22	13.0
AK355	Kurtz, S. Garay, G. Lizano, S.	Mexico/UNAM Chile Mexico/UNAM	Are UC HII regions photo-evaporating accretion disks?	3.6, 6, 20	30	2.0
AL329	Liu, M. Skinner, C.	Calif., Berkeley Caltech	MWC 922, a possible Herbig Be star	3.6, 6, 20	8	2.5
AL330	Longair, M. Rottgering, H. Best, P. Riley, J.	Cambridge Cambridge Cambridge Cambridge	Larger-scale structure of 3CR radio galaxies at z ⁻¹	3.6	11, 14	10.0
AM418	McIntyre, V. Puche, D. Huchra, J.	CFA CFA CFA	Star formation & internal kinematics of irregular galaxies	20 line	1,26	8.1
AM445	Moore, C. Hewitt, J.	MIT MIT	Time delays in the gravitational lens MG0414+0534	3.6	2,5,10,14,19 23,28,31	4.5
AM446	Mirabel, F. Rodriguez, L.	Saclay Mexico/UNAM	GRS1915+105: Possible hard X-ray counterpart of a soft gamma repeater	3.6, 20	1, 9, 17 24	8.0
AM451	Maiolino, R. Rieke, G. Ruiz, M.	Florence Arizona Arizona	Relation between seyfert activity and circumnuclear star formation	6	24	10.5
AM452	Marscher, A. Moore, E. Bania, T.	Boston Boston Boston	Variable ammonia absorption toward extragalactic continuum sources	1.3 line	17	10.0
AM454	McMahon, R. Lonsdale, C. Rowan-Robinson, M. Lehar, J.	Cambridge Haystack Imperial College Cambridge	Search for high redshift IR luminous galaxies	20	5	4.5
AP263	Patnaik, A. Browne, I. Muxlow, T. Wilkinson, P.	Manchester Manchester Manchester Manchester	Monitoring the gravitational lens B1422+23.1	2	2,6,10,13,17 20,24,27,30	6.3
AP291	Paredes, J. Martí, J. Taylor, A. Peracaula, M. Coe, M. Strikman, M.	Barcelona Barcelona Calgary Calgary Southampton, U. of NRL	Concurrent radio, x-ray and infrared observations of LSI+61o303	1.3, 2, 6, 20	1, 2, 3, 5, 7, 8	9.5
AR311	Reynolds, S. Jenkins, G. Kassin, N. Moffett, D.	N.C. State N.C. State NRL NMIMT	330 MHz observations of bright supernova remnants	90	31	1.9
AR317	Ratner, M. Bartel, N. Lebach, D. Lestrade, J. Shapiro, I.	CFA York U. CFA JPL/Meudon CFA	Monitor IM Peg for NASA/Stanford gravity probe-B use	3.6	4	0.5
AR321	Rottgering, H. van Breugel, W. Miley, G.	Cambridge Caltech Leiden	The most distant radio galaxies-the steepest radio spectra?	6 w/BB014	5, 6, 11	7.0
AS525	Sramek, R. Weiler, K. van Dyk, S. Panagia, N.	NRAO-Socorro NRL NRL STScI	The properities of radio supernovae	1.3, 2, 3.6, 6, 20	6, 20, 28	8.1
AS532	Smith, B.	Texas	HI mapping of the interacting galaxy pair NGC 7714/5	20 line	11	10.0
AS536	Schiminovich, D. van Gorkom, J. van der Hulst, J.	Columbia Columbia Groningen/Kapteyn	HI observations of shell galaxies	20 line	28, 29, 30, 31	32.0
AS539	Schilizzi, R. Snellen, I. Miley, G. de Bruyn, A. Rottgering, H.	NFRA Leiden Leiden NFRA Cambridge	WENSS sample of faint peaked spectrum sources	2, 3.6, 6	22	10.0

VLA Utilization Report July 1994

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AT154	Thorsett, S. Taylor, J. McKinnon, M. Hankins, T. Stinebring, D.	Caltech Princeton NRAO-GB NMIMT Oberlin	Timing fast pulsars at the VLA	6, 20, 90	14, 15	11.5
AT166	Taylor, G. Ge, J. Barton, E.	Caltech Brandeis Caltech	Searching for cluster magnetic fields in cooling flow of A119, 3C129	2, 3.6, 6	25	10.0
AT167	Tongue, T. Westpfahl, D. Adler, D. Henning, P.	NMIMT NMIMT NRAO-Socorro New Mexico	HI mapping of M33: topology of neutral medium	20 line	10, 19	16.0
AW350	Wills, B. Shastri, P.	Texas Calif., Berkeley	Core variability in lobe-dominated quasars	3.6	4	1.0
AW360	Wilcots, E. Hodge, P. Miller, B.	NRAO-Socorro Washington Washington	High resolution continuum study of IC 10	20	27	1.0
AW374	Wood, D.	NRAO-Socorro	Test/Wood		8	2.5
AW384	Wilcots, E. Miller, B.	NRAO-Socorro Washington	HI Observations of barred magellanic type galaxies	20 line	2	4.0
AW386	White, S. Mundy, L. Grossman, A.	Maryland Maryland Maryland	Radio emission of DG Tau and DG Tau B	2, 3.6	8	4.0
AY055	Yun, M. McIntyre, V.	Caltech CFA	Galaxy-scale gaseous collisions and ring galaxies	20 line	15	9.0
BB014	Brown, R. Benson, J.	NRAO-CV NRAO-Socorro	Brightness Variations of Sgr A* w/ASS25,AD334,AP263,AR321,AK350	3.6, 6	6	7.3
BR027	Rupen, M. Bartel, N. Conway, J. Beasley, A. Sramek, R. Altunin, V. Bietenholz, M. Cannon, W. Davis, R. Graham, D. Jones, D. Panagia, N. Popelar, J. Rius, A. Romney, J. Titus, M. Umana, G. van Dyk, S. Venturi, T. Weiler, K.	NRAO-Socorro York U. NRAO-Socorro NRAO-Socorro NRAO-Socorro JPL York U. York U. NRAO-Socorro MPIR JPL STScI NRCC, Canada IAG, Madrid NRAO-Socorro Haystack Noto, Italy Calif., Berkeley Bologna NRL	Supernova 1994I in M51.	3.6, 6, 20	29	15.0
	Staff	NRAO	Maintenance Operations Software Student observations General Tests			50.5 36.3 33.9 6.8 29.4

Average downtime: 3.3%

The array was scheduled for

Astronomical Programs: 590.4 hours (79.1% of the time)
Scheduled: 71.3 hours (9.6% of time)
Maintenance: 84.3 hours (11.3% of time)
Total Scheduled: 746.1 hours (100%)

The array was in the B configuration from July 1 through July 31

Total number of astronomical programs: 55

The following independent proposals shared simultaneous observing time (9.8 hours total simultaneous observing):

Projects	Hours
AD334/BB014	2.5
AK350/BB014	0.8
AP263/BB014	0.5
AR321/BB014	3.0
AS525/BB014	0.5
AW374/Tests	2.5

VLA Utilization Report June 1994

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AB628	Becker, R. Helfand, D. White, R. Perley, R.	Calif., Davis Columbia STScI NRAO-Socorro	Survey of the north galactic cap.	20	4-6, 10-14, 17-20, 25, 26	147.3
AB705	Burke, B. Becker, D. Lehar, J. Hewitt, J. Roberts, D.	MIT MIT Cambridge MIT Brandeis	Time delay of the gravitational lens 0957+561	3.6, 6	24	2.0
AB706	Biretta, J. Zhou, F.	STScI NMIMT	Proper Motions in extragalactic jets: Preliminary FR-I Survey	3.6	22, 25	3.0
AB721	Brown, D. Yusef-Zadeh, F. Perez, M.	Northwestern Northwestern NASA-GSFC	Herbig Ae star HD 163296	3.6, 20	18	2.5
AC363	Curiel, S. Rodriguez, L. Eiroa, C. Canto, J.	CFA NRAO/UNAM UAM, Spain UNAM, Mexico	Radio continuum emission associated with YSOs	6	22	3.0
AC373	Chen, H. Taylor, A. Dougherty, S.	CFA Calgary Calgary	Sensitive radio survey of Be stars	3.6	11	3.0
AC384	Cillegi, P. Elvis, M. Boyle, B. Maccacaro, T.	CFA CFA Cambridge Milano	Complete ROSat X-ray selected sample of AGN	20	5	5.5
AC389	Clements, D. Saunders, W. Sutherland, W. McMahon, R. Maddox, S. Efstathiou, G. Rowan-Robinson, M.	Oxford U. Oxford U. Oxford U. Cambridge Cambridge Oxford U. Imperial College	A new sample of ultraluminous IRAS galaxies	20	1	4.0
AC390	Combes, F. Viallefond, F.	Meudon Meudon	Flaring of HI planes in 10 edge-on galaxies	20 line	24, 27, 28	23.9
AC391	Conway, J. Frail, D.	NRAO-Socorro NRAO-Socorro	Search for radio emission from extrasolar Jovian planets	90	7, 9, 29	8.5
AD333	Duric, N. Goss, M. Viallefond, F. Lacey, C. Gordon, S.	New Mexico NRAO-Socorro Meudon New Mexico CFA	A multi-wavelength survey of SNRs in 9 nearby galaxies	6, 20	15, 16, 18	20.0
AD344	de Pater, I. Heiles, C. Bolton, S. Klein, M.	Calif., Berkeley Calif., Berkeley JPL JPL	Comet-jupiter crash	20, 90	23, 24	12.0
ADHOC1	Leppanen, K.	NRAO-Socorro		2.0		7
AF263	Feretti, L. Giovannini, G. Parma, P. Laing, R. Bridle, A. Perley, R.	Bologna Bologna Bologna RGO NRAO-CV NRAO-Socorro	Tests for kpc-scale jet deceleration using 3C 31	3.6, 6, 20	6, 13, 14	24.0
AF267	Felli, M. Tofani, G. Goldsmith, P. Olmi, L.	Arcetri Arcetri NAIC NAIC	IR cluster in Cepheus B - S155 interface	2, 3.6	18	4.0
AG403	Gomez, Y. Rodriguez, L. Garay, G.	NRAO/UNAM NRAO/UNAM Chile, U. of	Search for radio continuum emission in selected OH/IR Stars	3.6	14	2.5
AG412	Grossman, A. Clancy, R. Muhleman, D.	Maryland Colorado/JILA Caltech	Mapping seasonal variation of Mars water vapor	1.3 line	4, 5, 10	24.0
AG413	Grossman, A. Muhleman, D. Gurwell, M.	Maryland Caltech Caltech	Impact of comet Shoemaker-Levy 9 on Jupiter	3.6, 6	27	9.0
AG417	Giacani, E. Dubner, G. Goss, M. Winkler, F. Frail, D.	Buenos Aires Buenos Aires NRAO-Socorro Middlebury College NRAO-Socorro	Multi-frequency observations of the SNR W44	20	12	3.5
AJ234	Jacobson, A. Mercier, C. Erickson, W.	Los Alamos Paris Obs. Tasmania	Geoplasma dynamics	90	22, 24, 28, 29	9.0

VLA Utilization Report June 1994

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AJ238	Johnston, K. Gaume, R. Nedoluha, G. Wilson, T. Collison, A.	NRL NRL NRL MPIR Illinois	Spatial structure of Orion CH3OH maser	1.3 line	19	4.0
AK331	Kobulnicky, C. Dickey, J. Conti, P.	Minnesota Minnesota Colorado/JILA	Spectral index mapping of Wolf-Rayet galaxies	6, 20	9, 17	6.0
AK359	Kollgaard, R. Kedziora-Chudczer, Feigelson, E. Gabuzda, D. Urry, C.	Penn State Sydney Penn State Calgary STSci	Multifrequency monitoring of PKS 2155-304	1.3, 2, 3.6, 6	1	1.0
AM418	McIntyre, V. Puche, D. Huchra, J.	CFA CFA CFA	Star formation & internal kinematics of irregular galaxies	20 line	30	7.4
AM445	Moore, C. Hewitt, J.	MIT MIT	Time delays in the gravitational lens MG0414+0534	3.6	1, 2, 11, 17, 21, 25, 28	4.6
AM446	Mirabel, F. Rodriguez, L.	CNRS, France NRAO/UNAM	GRS1915+105: Possible hard X-ray counterpart of a soft gamma repeater	3.6, 20	4, 13, 20	7.0
AM450	Molinari, S. Brand, J. Cesaroni, R. Palla, F. Palumbo, G.	Bologna Bologna Arcetri Arcetri Bologna	Very young massive stars	2, 6	26	11.0
AP263	Patnaik, A. Browne, I. Muxlow, T. Wilkinson, P.	MPIR Manchester Manchester Manchester	Monitoring the gravitational lens B1422+23.1	2	6, 11, 15, 19, 22, 26, 29	3.6
AP283	Phillips, R. Lonsdale, C. Hand, J.	Haystack Haystack Kansas	Lower-mass WTT star nonthermal radio luminosity function	3.6 w/ Move/Op	3	12.9
AP291	Paredes, J. Marti, J. Taylor, A. Peracaula, M. Coe, M. Strickman, M.	Barcelona Barcelona Calgary Calgary Southampton, U. of NRL	Concurrent radio, x-ray and infrared observations of LSI+61 303	1.3, 2, 6, 20	9, 11, 12, 15, 17-19, 21, 24, 26, 28	16.5
AP294	Pooley, G. Hardcastle, M. Riley, J. Alexander, P.	Cambridge Cambridge Cambridge Cambridge	Constraining the luminosity function of jets in FR II radio galaxies	3.6	23	13.0
AR310	Rudnick, L. Keohane, J. Perley, R.	Minnesota Minnesota NRAO-Socorro	Evolutionary studies of Cas A	6, 20	30	12.0
AR313	Roberts, D. Crane, P. Cowan, J. Dickel, J.	Illinois Interferometrics Oklahoma Illinois	VLA search for a nuclear source in M32	3.6, 20	20, 25	16.0
AR317	Ratner, M. Bartel, N. Lebach, D. Lestrade, J. Shapiro, I.	CFA York, U. CFA JPL CFA	Monitor IM Peg, Lambda, for NASA/Stanford gravity probe-B use	3.6	21	0.5
AR318	Rucinski, S.	ISTS	Survey of contact binary stars	3.6 w/Move/Op	2	7.5
AR320	Roberts, D. Crutcher, R. Troland, T. Goss, M.	Illinois Illinois Kentucky NRAO-Socorro	High resolution HI zeeman observations of W3	20 line	9, 11, 12, 16	32.0
AS525	Sramek, R. Weiler, K. Van Dyk, S. Panagia, N.	NRAO-Socorro NRL NRL STSci	The properities of radio supernovae	1.3, 2, 3.6, 6, 20	8, 16, 23, 28	10.2
AS534	Sevenster, M. Lindqvist, M. Habing, H. van Langevelde, H.	Leiden Leiden Leiden NFRA	1612 MHz OH survey to complete IRAS/OH surveys	20 line w/Move/Op	1, 3	12.5
AS535	Scheuer, P. Laing, R. Dennet-Thorpe, J. Bridle, A.	Cambridge RGO Cambridge NRAO-CV	Jet and spectral-index asymmetries in nearby FR II radio galaxies	20	9, 18	12.0

VLA Utilization Report June 1994

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AW350	Wills, B. Shastri, P.	Texas Calif., Berkeley	Core variability in lobe-dominated quasars	3.6	16, 22	3.1
AW362	White, S.	Maryland	The stellar activity cycle on active stars	3.6, 6, 20	9, 24	3.5
AW384	Wilcots, E. Miller, B.	NRAO-Socorro Washington	HI Observations of barred magellanic type galaxies	20 line	28	4.0
BR027	Rupen, M. Bartel, N. Conway, J. Beasley, A. Sramek, R. Altunin, V. Bietenholz, M. Cannon, W. Davis, R. Graham, D. Jones, D. Panagia, N. Popelar, J. Rius, A. Romney, J. Titus, M. Umana, G. Van Dyk, S. Venturi, T. Weiler, K.	NRAO-Socorro York U. NRAO-Socorro NRAO-Socorro NRAO-Socorro JPL York U. York U. NRAO-Socorro MPIR JPL STScI NRCC, Canada IAG, Madrid NRAO-Socorro Haystack Noto, Italy Calif., Berkeley Bologna NRL	Supernova 1994I in M51.	3.8, 6 Phased array VLBI	1	12.0
GR004	Rupen, M. Bartel, N. Conway, J. Beasley, A. Sramek, R. Altunin, V. Bietenholz, M. Davis, R. Jones, D. Rius, A. Romney, J. van Dyk, S. Weiler, K.	NRAO-Socorro CFA NRAO-Socorro NRAO-Socorro NRAO-Socorro JPL York U. NRAO-Socorro JPL DSN NRAO-Socorro NRL NRL	Supernova 1993J in M81	2, 3.6, 6, 21 Phased Array VLBI	21	16.0
	Staff	NRAO	Baselines, Pointing, Delays Maintenance Move/Operations Operations Software General Tests			44.0 50.9 8.3 51.0 43.3 33.6

Average downtime: 6.2%

The array was scheduled for

Astronomical Programs: 538.1 hours (74.5% of the time)
 Scheduled: 89.7 hours (12.4% of time)
 Maintenance: 94.2 hours (13.0% of time)
 Total Scheduled: 722.0 hours (100%)

The array was in the B configuration from June 1 through June 30

Total number of astronomical programs: 44

The following independant proposals shared simultaneous observing time (6.3 hours total simultaneous observing):

Projects	Hours
AP283/Move/Op	3.3
AR318/Move/Op	3.0
AS534/Move/Op	0.0

VLA Utilization Report May 1994

Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AA179	Andre, P. Wooten, A. Despois, D.	CNRS, France NRAO-CV Bordeaux Obs	Compact circumstellar dust structures in Rho Ophiuchi	0.7	19	6.0
AB612	Biretta, J. Owen, F.	STScI NRAO-Socorro	Monitoring of proper motions in the M87 jet	2 test.move/op	2	12.0
AB701	Browne, I. Wilkinson, P. Nair, S. Myers, S. Readhead, A. Blandford, R. de Bryun, A. Jackson, N. Miley, G. Pearson, T. Schilizzi, R.	Manchester Manchester Manchester Caltech Caltech Caltech NFRA Leiden Leiden Caltech NFRA	Search for gravitational lenses	3.6	4	1.0
AB705	Burke, B. Becker, D. Lehar, J. Hewitt, J. Roberts, D.	MIT MIT Cambridge MIT Brandeis	Time delay of the gravitational lens 0957+561	3.6, 6	6	2.0
AB707	Browne, I. Patnaik, A. Walsh, D. Wilkinson, P.	Manchester MPIFR, Bonn Manchester Manchester	Monitoring smallest lens 0218+357: A step to measuring H_0	2, 3.6 w/BD002, BK015	2,6,9,12,16, 18,23,26,30	9.4
AB713	Brown, R. Cutri, R. Kuchra, J. Low, F. Vanden Bout, P.	NRAO-CV Arizona Cfa Arizona NRAO-CV	Candidate protogalaxies	3.6	12	8.0
AC389	Clements, D. Saunders, W. Sutherland, W. McMahon, R. Maddox, S. Efstathiou, G. Rowan-Robinson, M.	Oxford U. Oxford U. Oxford U. Cambridge Cambridge Oxford U. Imperial College	A new sample of ultraluminous IRAS galaxies	20 BK015	23	6.0
AC394	Cox, A. Sparke, L. van Moorsel, G.	Wisconsin Wisconsin NRAO-Socorro	Radio continuum survey of polar ring galaxies	6, 20	12	10.5
AD334	Dhawan, V. Beasley, A.	NRAO-Socorro NRAO-Socorro	43 GHz fluxes and spectral indices of mm VLBI sources	0.7, 2	14, 15, 27	6.5
AD337	Drake, S. White, S.	USRA/GFSC Maryland	Search for emission from very low mass stars and brown dwarfs	6, 20 w/BK015	4, 14, 22	12.5
ADHOC1	Leppanen, K.		AD HOC		9	0.5
ADHOC2	Coleman, J.		AD HOC		29	1.1
AF270	Fruchter, A. Goss, M.	STScI NRAO-Socorro	Dual wavelength observation of Terzan 5	20, 90	23, 24,	18.0
AG416	Guedel, M. Guinan, E. Dorren, J. Schmitt, J. Elias, N.	Switzerland Villanova Villanova MPE, Garching USNO	Sun in Time: Project: Variability in active ZAMS G star EK Dra	3.6	24	8.0
AG421	Gaume, R. Fischer, J.	NRL NRL	Monitoring the radio continuum flux density of NGC 2024-IRS2	1.3,2,3.6, 6,20 w/BK015	22	3.0
AG422	Ghez, A. Fuller, G. Biegging, J.	Calif, L.A. NRAO-Tuc Arizona	Radio survey of T Tauri binary star systems	3.6	13	10.0
AH492	Hjellming, R. Gehrz, R. Seaquist, E. Taylor, A.	NRAO-Socorro Minnesota Toronto Calgary	Image and light curve evolution of the novae Puppis 1991 & Cygni 1992	1.3,2,3.6, 6,20	27	4.6
AH507	Hankins, T. Moffett, D.	NMIMT NMIMT	Nanosecond time resolution observations of Crab pulsar "Giant pulses"	2, 3.6, 6, 20	14, 17, 27	7.2
AI051	Iverson, R. Seaquist, E. Hall, P.	Toronto Toronto ATNF	OH mapping of the symbiotic OH/IR star, H1-36	20 line	1	6.5
AI053	Iverson, R. Seaquist, E. Hall, P.	Toronto Toronto ATNF	Imaging the water maser in R aquarii	1.3 line	20	8.0

VLA Utilization Report May 1994

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AS534	Sevenster, M. Lindqvist, M. Habing, H. van Langevelde, H.	Leiden Leiden Leiden JIVE	1612 MHz OH survey to complete IRAS/OH surveys	20 line w/G2011	20,21,25,27, 30	27.6
AS540	Sjouerman, L. van Langevelde, H. Diamond, P. Lindqvist, M. Winnberg, A.	Leiden JIVE NRAO-Socorro Leiden Chalmers, Onsala	SIO maser emission in galactic centre OH/IR stars	0.7 line	21	4.3
AT154	Thorsett, S. Taylor, J. McKinnon, M. Hankins, T. Stinebring, D.	Caltech Princeton NRAO-GB NMIMT Oberlin	Timing fast pulsars at the VLA	6, 20, 90	4	11.0
AV205	van der Werf, P.	MPIFEP, Garching	Imaging of the starburst nucleus in M83	6	23	5.0
AW374	Wood, D.	NRAO-Socorro	7mm observations of ultracompact HII regions	0.7, 3.6	22	4.0
AW380	Wilson, T. Gaume, R. Johnston, K. Dickel, H.	MPIFR, Bonn NRL USNO Illinois	Continuum emission from protostars in NGC2024 at 7mm	0.7	15	6.0
AW382	Wood, D. Karovska, M.	NRAO-Socorro Cfa	7mm Imaging of R Aquarii	0.7, 3.6	30	10.0
AW388	Willson, R. Kile, J. Lang, K.	Tufts Tufts Tufts	Active stars	3.6, 6, 20	17	10.5
AY064	Yin, Q.F. Condon, J.J.	NRAO-CV NRAO-CV	Supernovae in NGC 3690.	3.5, 6, 20	15	1.0
AZ066	Zepka, A. Lundgren, S. Cordes, J.	Cornell Cornell Cornell	Astrometry of new pulsars found in X-ray selected fields	20	1	16.0
BD002	Diamond, P. Kemball, A. Benson, J. Junor, W. Zensus, A.	NRAO-Socorro CSIR, S. Africa NRAO-Socorro NRAO-Socorro	Monitoring the structure of SIO masers with VLBA w/AL328,AK359,AJ234,AB707,AM445,AK362, Tests,AR319	0.7 Single Antenna VLBI	16	21.1
BK015	Katz-Stone, D. Rudnick, L.	Minnesota Minnesota	Low-energy end of the spectrum of relativistic electrons in 3C 67 and 3C190 w/AC389,AB707,AM445,Software,AG421,AD337, AS525	90	22, 23	19.3
BL004	Lazio, T. Cordes, J.	Cornell Cornell	Angular broadening in the galactic anticenter	20, 90 Phased Array	6	9.8
BM029	McMahon, P. Chen, G. Hewitt, J.	MIT MIT MIT	VLBA imaging of the Einstein ring MG1131+0456	array VLBI 20 Phased	20	2.9
BM033	Marcaide, J. Alberdi, A. Guirado, J. Diamond, P. Jones, D. Krichbaum, T. Mantovani, F. Preston, R. Rius, A. Rogers, A. Ros, E. Schilizzi, R. Shapiro, I. Trigilio, C. Whitney, A. Witzel, A.	Valencia, Spain IAA, Granada IAA, Granada NRAO-Socorro JPL MPIFR Bologna JPL IAA, Granada Haystack Valencia, Spain NFRA Cfa Bologna Haystack MPIFR	Supernova 1994I in M51	2 Phased Array VLBI	5	11.4
BR017	Ratner, M. Bartel, N. Lebach, D. Lestrade, J. Shapiro, I.	CFA CFA CFA JPL/Meudon CFA	Astrometry of HR 5110 for the NASA/Stanford gravity probe-B	3.6, 6	29	13.1
FAH001	Ficarra, A. Mantovani, F.	Bologna Bologna	Tests of Bologna Mark 2 correlator	6 w/AR319,AK359	18	4.1
GG024	Giovannini, G. Feretti, L. Venturi, T. Cotton, W. Lara, L. Wehrle, A.	Bologna Bologna Bologna NRAO-CV IAA, Granada JPL	B2 0836+29 and 3C 469	3.6, 6	18, 27	20.4

Average downtime: 6.1%

The array was scheduled for

Astronomical Programs: 541.0 hours (72.5% of the time)
Scheduled: 107.6 hours (14.4% of time)
Maintenance: 97.5 hours (13.1% of time)
Total Scheduled: 746.1 hours (100%)

The array was in the A configuration from May 1 through May 2
BnA Configuration from May 2 through May 31

Total number of astronomical programs: 64

The following independant proposals shared simultaneous observing time (27.5 hours total simultaneous observing):

Projects	Hours
AB612/Move/Op	4.0
AB612/Tests	2.6
AB707/BD002	1.0
AB707/BK015	1.0
AC389/BK015	6.0
AD337/BK015	7.0
AG421/BK015	2.1
AJ234/BD002	2.0
AJ234/GZ011	0.7
AK359/BD002	0.5
AK359/BK015	0.9
AK359/FAH1	0.5
AK362/BD002	6.0
AL328/BD002	3.6
AM445/BD002	1.0
AM445/BK015	0.5
AR319/BD002	4.5
AR319/FAH1	3.5
AS525/BK015	1.4
AS525/Move/Op	2.0
GZ011/AK359	1.0
GZ011/AM454	1.4
GZ011/AS534	8.0
Software/BK015	0.4
Tests/BD002	2.5
GZ011/AS525	3.0

VLA Utilization Report April 1994

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AA169	Antonucci, R. Barvainis, R.	Calif., SBarbara Haystack	Nature of the optical/ultraviolet Emission in AGN	3.6	5, 21	2.0
AA174	Anantharamaiah, K. Duroachoux, P. Dwarakanath, K. Wallyn, P.	Raman Institute CNRS, France NRAO-Socorro CNRS, Saclay	Radio counterpart of EXS 1737-2952	6, 20	3, 8	8.0
AB699	Beasley, A. Owen, F. Voges, W.	NRAO-Socorro NRAO-Socorro MPIfEP, Garching	X-ray selected intermediate redshift clusters	20	19, 28	24.0
AB700	Bondi, M. Dallacasa, D. Della Ceca, R. Stanghellini, C.	Manchester NFRA Johns Hopkins Noto, Italy	High sensitivity observations of radio selected BL Lac objects	3.6, 20	18, 29	12.1
AB701	Browne, I. Wilkinson, P. Nair, S. Myers, S. Readhead, A. Pearson, T. Blandford, R. de Bruyn, A. Schilizzi, R. Miley, G. Jackson, N.	Manchester Manchester Manchester Caltech Caltech Caltech NFRA NFRA Leiden Leiden	Search for gravitational lenses	3.6	3	14.0
AB705	Burke, B. Becker, D. Lehar, J. Hewitt, J. Roberts, D.	MIT MIT Cambridge MIT Brandeis	Time delay of the gravitational lens 0957+561	3.6, 6	10	1.0
AB706	Biretta, J. Zhou, F.	STScI NMIMT	Proper Motions in extragalactic jets: Preliminary FR-I Survey	3.6	22	1.5
AB707	Browne, I. Patnaik, A. Walsh, D. Wilkinson, P.	Manchester MPIfR, Bonn Manchester Manchester	Monitoring smallest lens 0218+357: A step to measuring Ho	2, 3.6	5, 19, 25	3.5
AB708	Backer, D. Sramek, R.	Calif., Berkeley NRAO-Socorro	Proper motion of Sgr A*	3.6, 6	2, 21, 26	17.1
AC346	Crane, P. Peletier, R. Perley, R.	ESO ESO NRAO-Socorro	3C264: a new optical synchrotron jet	2	9	4.0
AC379	Chambers, K. Swanson, J.	Hawaii Hawaii	The nature of high redshift radio galaxies	3.6, 20	7, 11	4.0
AD328	Dickey, J. Brinks, E. Rupen, M. Sramek, R. Bowen, D. Roth, K.	Minnesota NRAO-Socorro NRAO-Socorro NRAO-Socorro STScI STScI	SN 1993J in M81	20 line	11	11.0
AD333	Duric, N. Goss, M. Viallefond, F. Lacey, C. Gordon, S.	New Mexico NRAO-Socorro Meudon New Mexico CFA/New Mexico	A multi-wavelength survey of SNRs in 9 nearby galaxies	20	1	12.0
ADHOC1	Rupen, M.	NRAO-Socorro	Ad Hoc Proposal		2, 3	2.0
ADHOC2	Sramek, R.	NRAO-Socorro	Ad Hoc Proposal		5, 9	5.3
AE097	Eilek, J. Loken, C. Owen, F.	NMIMT NMSU NRAO-Socorro	The ends of type I radio tails	90	4	6.0
AE098	Eyres, S. Davis, R. Kenny, H. Bode, M. Dougherty, S. Bang, M. Taylor, A.	Manchester Manchester Calgary John Moores John Moores John Moores Calgary	Multi-freq observations of symbiotic novae	1.3, 3.6	2, 21	3.0
AG404	Greenhill, L. Menten, K. Alcolea, J.	Cfa Cfa Yeibes, Spain	SiO maser and compact H II regions in W51-IRS2	0.7 line	11	8.1
AG409	Giovannini, G. Feretti, L. Venturi, T.	IdR, Bologna IdR, Bologna IdR, Bologna	Cores of radio galaxies 1144+35 and 3C338	3.6, 6, 20	1	3.0
AH505	Hofstadter, M.	JPL	Continuum mapping of Uranus at 2 and 6cm	2, 6	19, 22	14.0
AH509	Hajian, A. Terzian, Y.	Cornell Cornell	Planetary nebula expansion parallax distances	6	5, 27	13.2

VLA Utilization Report April 1994

Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
A1050	Iverson, R. Seagrist, E.	Toronto Toronto	Images of RX Puppis during a phase of low excitation	1.3, 3.6	1	4.0
AJ229	Jaffe, W. McNamara, B.	Leiden Groningen/Kapteyn	HI in N4261 = 3C270	20 line	14, 15	8.0
AJ234	Jacobson, A. Mercier, C. Erickson, W.	Los Alamos Meudon Maryland	Geoplasma dynamics	90	10, 16, 23, 24, 29	9.5
AJ236	Jowett, F. Spencer, R. Vermeulen, R. Schilizzi, R.	Manchester Manchester Caltech NFRA	SS433: observations in conjunction with VLBI and Merlin	1.3	19, 21	4.5
AK319	Katz-Stone, D. Kudnick, L.	Minnesota Minnesota	Three frequency mapping of FR 1 radiogalaxy 3C449	90	28	8.0
AK331	Kobulnicky, C. Dickey, J. Conti, P.	Minnesota Minnesota Colorado	Spectral index mapping of Wolf-Rayet galaxies	20, 90	25, 26	13.0
AK354	Koerner, D. Sargent, A. Chandler, C.	Caltech Caltech Caltech	Radial structure and dust properties of protoplanetary disks	0.7, 1.3, 3.6	2, 3	20.0
AK355	Kurtz, S. Garay, G. Lizano, S.	Mexico/UNAM Chile Mexico/UNAM	Are UC HII regions photovaporating accretion disks?	3.6, 6, 20	7	2.5
AK356	Katz, C. Hewitt, J.	MIT MIT	Gravitational lens MGD414+0534	1.3	1	4.0
AL314	Liang, E. Hjellming, R.	Rice NRAO-Socorro	Search for radio jets and variations in the annihilator 1H1822-371	2, 3.6, 6, 20	19	1.5
AM405	Miranda, L. Torrelles, J. Eiroa, C.	Madrid Obs. Granada Madrid	H92alpha in proto-PNs & very young PNs	3.6 line	18	8.0
AM435	Mehring, D. Palmer, P. Goss, M.	Illinois Chicago NRAO-Socorro	SiO Masers in W51 and electron temperature of the ultracompact HII region complex Sgr B2 F		11	4.0
AM441	Menten, K. Reid, M.	Cfa Cfa	44 GHz methanol masers	0.7 line	4, 7	8.0
AM442	Menten, K. Reid, M.	Cfa Cfa	VLA 43 GHz observations of the compact Orion-KL radio sources		29	10.0
AM445	Moore, C. Hewitt, J.	MIT MIT	Time delays in the gravitational lens MGD414+0534	3.6	5,7,11,19,25, 28,29	4.2
AM446	Mirabel, F. Rodriguez, L.	CNRS, France NRAO-Mexico/UNAM	GRS1915+105: Possible hard X-ray counterpart of a soft gamma repeater	3.6, 20	29	3.0
AM447	Mirabel, F. Rodriguez, L.	CNRS, France NRAO-Mexico/UNAM	Hard X-ray transient GRS1716-249	6, 20	10, 28	4.0
AP263	Patnaik, A. Browne, I. Muxlow, T. Wilkinson, P.	MPIfr, Bonn Manchester Manchester Manchester	Monitoring the gravitational lens B1422+23.1	2	3,8,10,12, 18,23,25, 30	5.1
AP284	Perlman, E. Stoche, J. Burns, J.	Colorado Colorado NMSU	Clusters of galaxies at high redshift: search for lensing	3.6, 6, 20	5, 10	5.4
AR277	Rodriguez, L. Gomez, Y. Canto, J. Lizano, S. Escalante, V.	NRAO-Mexico/UNAM NRAO-Mexico/UNAM Mexico/UNAM Mexico/UNAM Mexico/UNAM	First images of protoplanetary disks	0.7, 3.6 w/AS525	9,10,14-17, 22-25,30	188.0
AR312	Reid, M. Menten, K.	Cfa Cfa	SiO masers and stellar disks of red giants	0.7	7, 8	24.0
AR316	Rich, M. Forster, K. van Gorkom, J.	Columbia Columbia Columbia	HI column densities in BAL active galaxies	20 line	5, 6	17.9
AR317	Ratner, M. Bartel, N. Leback, D. Lestrade, J. Shapiro, I.	Cfa York U. Cfa JPL/CNRS, France Cfa	Monitor IM Peg, Lambda, for NASA/Stanford gravity probe-B use	3.6	4, 26	1.0
AS525	Sramek, R. Weiler, K. Van Dyk, S. Panagia, N.	NRAO-Socorro NRL NRL STScI	The properties of radio supernovae	1.3, 2, 3.6, 6, 20 w/AR277	6-8,10,12- 17,20-22, 24-27,30	39.0
AT159	Tongue, T. Westpfahl, D.	NMIMT NMIMT	Resolving a non-thermal superbubble in Holmberg I1	20	2	4.0
AW350	Wills, B. Shastri, P.	Texas Calif., Berkeley	Core variability in lobe-dominated quasars	3.6	26	1.0
AW362	White, S.	Maryland	The stellar activity cycle on active stars	3.6, 6, 20	8, 26	3.0

VLA Utilization Report April 1994

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AW372	Wagner, S. Quirrenbach, A.	Heidelburg Obs. NRL	What causes asymmetries in low luminosity jets of Seyfert galaxies?	3.6, 20 w/move/op	17	4.0
AW375	Wootten, A. Mangum, J.	NRAO-CV Arizona	Cool dust and star-forming cores in DR21(OH)	0.7, 3.6	8	4.0
BH019	Miyoshi, M. Inoue, M. Nakai, N. Moran, J. Greenhill, L. Diamond, P.	Nobeyama Nobeyama Nobeyama CfA CfA NRAO-Socorro	H2O maser features in the galaxy NGC 4258	1.3 Phased array VLBI	26	13.6
GR004	Rupen, M. Bartel, N. Conway, J. Beasley, A. Sramek, R. Romney, J. Bietenholz, M. Weiler, K. Altunin, V. Cannon, W. Davis, R. Graham, D. Jones, D. Panagia, N. Popelar, J. Rius, A. Titus, M. van Dyk, S. Venturii, T.	NRAO-Socorro York U. NRAO-Socorro NRAO-Socorro NRAO-Socorro York U. NRL JPL ICS NRAO-Socorro MPIfR JPL STScI Ottawa DSN Haystack NRL IdR, Buenos Aires	1993J in M81	2, 3.6, 6 Phased array VLBI	21	16.0
	Staff	NRAO	Maintenance Move/Operations Operations Software Standard Field Observation General tests			41.6 9.9 45.5 24.6 5.0 8.9

Average downtime: 5.2%

The array was scheduled for
 Astronomical Programs: 589.1 hours (81.7% of the time)
 Scheduled: 65.7 hours (9.1% of time)
 Maintenance: 66.2 hours (9.2% of time)
 Total Scheduled: 721.0 hours (100%)

The array was in the A configuration from
 April 1 through April 30

Total number of astronomical programs: 52

The following independant proposals shared simultaneous observing time (27.5 hours total simultaneous observing):

Projects	Hours
AB700/Move/Op	2.0
AL314/Move/Op	1.5
AH435/AG404	4.0
AR277/AS525	2.0
AR277/AS525	2.0
AR277/AS525	2.0
AR277/AS525	2.0
AR277/AS525	2.0
AS525/AR277	2.0
AS525/AR277	2.0
AS525/AR277	2.0

VLA Utilization Report March 1994

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AA171	Anglada, G. Estalella, R. Girart, J. Torrelles, J. Rodriguez, L.	Barcelona Barcelona Barcelona IAA, Granada NRAO-Socorro	Do FU Ori stars drive outflows?	3.6	27	9.0
AB685	Bowen, D. Brinks, E. Steidel, C. Dickinson, M.	STScI NRAO-Socorro Calif., Berkeley Calif., Berkeley	A dwarf galaxy near the sightline of PKS 0454+039	20 line	21	6.0
AB698	Blanco, P. Conway, J. Pedlar, A. Nishida, N.	Calif., SanDiego NRAO-Socorro Manchester Kyoto	Atomic and molecular absorption in the core of Cygnus A	6, 20 line w/BR016	11	4.5
AB701	Browne, I. Wilkinson, P. Nair, S. Myers, S. Readhead, A. Pearson, T. Blandford, R. Schilizzi, R. de Bruyn, A. Jackson, N. Miley, G.	Manchester Manchester Manchester Caltech Caltech Caltech Caltech NFRA NFRA Leiden Leiden	Search for gravitational lenses	3.6 w/GZ011	1, 5	33.2
AB704	Burke, B. Avruch, I. Becker, D. Conner, S. Fletcher, A. Herold, L. Turner, E.	MIT MIT MIT MIT MIT MIT Princeton	MG VLA gravitational lens search	3.6	7, 8	36.0
AB705	Burke, B. Becker, D. Lehar, J. Hewitt, J. Roberts, D.	MIT MIT Cambridge MIT Brandeis	Time delay of the gravitational lens 0957+561	3.6, 6	3	1.0
AB706	Biretta, J. Zhou, F.	STScI NMIMT	Proper Motions in extragalactic jets: Preliminary FR-I Survey	3.6 w/GW011	3,5	8.7
AB707	Browne, I. Patnaik, A. Walsh, D. Wilkinson, P.	Manchester MPIFR, Bonn Manchester Manchester	Monitoring smallest lens 0218+357: A step to measuring H ₀	2, 3.6	6,13,17,19, 21,24	6.5
AB712	Borkowski, K. White, S. Harrington, J.	Maryland Maryland Maryland	X-ray bright planetary nebulae	2	14	4.0
AC374	Carilli, G. van Ojik, R. Miley, G. Rottgering, H. van Breugel, W. McCarthy, P.	Leiden Leiden Leiden Cambridge Caltech CIW	Polarimetric imaging of high redshift radio galaxies	3.6, 6	18	24.0
AC379	Chambers, K. Swanson, J.	Hawaii Hawaii	The nature of high redshift radio galaxies	3.6, 20	25	2.0
AC382	Curiel, S. Rodriguez, L. Moran, J. Canto, J.	CfA NRAO-Socorro CfA UNAM	Monitoring the Serpens Radio Jet	2, 3.6, 6	21	7.0
AD323	Dickey, J. Frail, D.	Minnesota NRAO-Socorro	The spin temperature of the warm neutral medium	20 line	25	9.0
AD333	Duric, N. Goss, M. Viallefond, F. Lacey, C. Gordon, S.	New Mexico NRAO-Socorro Meudon New Mexico CfA	A multi-wavelength survey of SNRs in 9 nearby galaxies	20	29	12.0
AD334	Dhawan, V. Beasley, A.	NRAO-Socorro NRAO-Socorro	43 GHz fluxes and spectral indices of mm VLBI sources	0.7, 2	6	2.0
AD335	Dwarakanath, K. Owen, F. van Gorkom, J.	NRAO-Socorro NRAO-Socorro Columbia	What is causing the HI absorption in Hydra A?	20 line	19	6.0
AE097	Eilek, J. Loken, C. Owen, F.	NMIMT NMSU NRAO-Socorro	The ends of type I radio tails	90 w/GW011	2	6.0

VLA Utilization Report March 1994

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AF241	Feretti, L. Andernach, H. Giovannini, G. Perley, R.	Bologna Canarias Bologna NRAO-Socorro	Jets in 3C31 & 3C449	20	24	3.0
AF257	Fomalont, E. Goss, M. Lyne, A. Manchester, R.	NRAO-CV NRAO-Socorro Manchester CSIRO	Pulsar proper motions-4th epoch	20 line	21, 22	20.5
AF260	Frail, D. Goss, M. Slysh, V. Dubner, G. Claussen, M. Gaume, R.	NRAO-Socorro NRAO-Socorro IKI, Moscow Buenos Aires NRAO-Socorro NRL	Shock-excited maser emission from supernova remnants	20 line w/BR016	11, 17	8.0
AF261	Fiebig, D. Menten, K.	Heidelberg Obs. CfA	Confirming the detection of a masing protostellar disk	1.3 line w/BR016	11	7.0
AF263	Feretti, L. Giovannini, G. Parma, P. Laing, R. Bridle, A. Perley, R.	Bologna Bologna Bologna Cambridge NRAO-CV NRAO-Socorro	Tests for kpc-scale jet deceleration using 3C 31	20	12	8.0
AF264	Fruchter, A. Thorsett, S. Goss, M.	Calif., Berkeley Caltech NRAO-Socorro	Pulsar proper motions	20 w/BR016	27, 28	28.0
AG402	Golla, G. Hummel, E. Dettmar, R. Kronberg, P.	MPIfR, Bonn Edinburgh STSci Toronto	Filamentary radio halos of NGC 4632 and UGC 9579	20	16	6.0
AG408	Gallimore, J. Baum, S. O'Dea, C. Brinks, E. Pedlar, A.	Maryland STSci STSci NRAO-Socorro Manchester	HI, OH, H2O absorption in nearby Seyferts	6, 20 line	10, 13	26.0
AH492	Hjellming, R. Gehrz, R. Sequist, E. Taylor, A.	NRAO-Socorro Minnesota Toronto Calgary	Image and light curve evolution of the novae Puppis 1991 & Cygni 1992	1.3, 2, 3.6, 6, 20	24, 28	10.5
AH509	Hajian, A. Terzian, Y.	Cornell Cornell	Planetary nebula expansion parallax distances	6	31	17.6
AH510	Hewitt, J. Chen, G.	MIT MIT	Faraday rotation measurements in gravitational lens MG1131+0456	3.6, 6	9	5.0
AJ234	Jacobson, A. Mercier, C. Erickson, W.	Los Alamos Meudon Maryland	Geoplasma dynamics	90	16, 18, 24, 27, 30	8.8
AJ235	Jaffe, W. van Langevelde, H. Israel, F.	Leiden Leiden Leiden	Narrow HI and OH absorption in radio galaxy nuclei	20 line	4	5.5
AK330	Katz-Stone, D. Rudnick, L.	Minnesota Minnesota	The low-energy end of the spectrum of relativistic electrons	3.6	3	6.0
AK353	Kronberg, P. Sawicki, M. Dyer, C. Perley, R.	Toronto Toronto Toronto NRAO-Socorro	Polarization symmetry-breaking due to lensing	3.6, 6	20	14.0
AK357	Kulkarni, S. Vasisht, G. Frail, D.	Caltech Caltech NRAO-Socorro	Is the soft gamma repeater 1806-20 a young pulsar?	3.6, 20	7	6.0
AL314	Liang, E. Hjellming, R.	Rice NRAO-Socorro	Search for radio jets and variations in the annihilator 1H1822-371	2, 3.6, 6, 20	6, 12, 27	6.0
AL317	Langston, G. Kochanek, C.	NRAO-CV CfA	Giant arcs near clusters of galaxies	20 w/BR016	11	12.0
AH437	Moffett, D. Reynolds, S. Dubner, G. Giacani, E. Reynoso, E. Winkler, F. Goss, M.	NMIMT North Carolina St. Buenos Aires Buenos Aires Buenos Aires Middlebury College NRAO-Socorro	Expansion of Tycho's SNR, 3C 10	20	18	7.0
AM445	Moore, C. Hewitt, J.	MIT MIT	Time delays in the gravitational lens MG0414+0534	3.6	6, 8, 13, 17, 19, 20, 27, 29	4.5
AM446	Mirabel, F. Rodriguez, L.	Saclay NRAO-Socorro	GRS1915+105: Possible hard X-ray counterpart of a soft gamma repeater	3.6, 20	24	3.0
A0118	Oren, A. Wolfe, A.	Calif., San Diego Calif., San Diego	Faraday rotation mapping of 3C196	3.6	12, 17	16.0

VLA Utilization Report March 1994

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AP263	Patnaik, A. Browne, I. Muxlow, T. Wilkinson, P.	MPiFR, Bonn Manchester Manchester	Monitoring the gravitational lens B1422+23.1	2 w/GW011	3,4,14,18,21 ,24,28,30	4.5
AP276	Pedlar, A. Mundell, C.	Manchester Manchester	Continuum observations of NGC3281	2, 3.6 line	23	2.0
AP285	Pedlar, A. Muxlow, T. Sanders, E. Axon, D.	Manchester Manchester Manchester STScI	Study of the diffuse component and extended SNR in M82	3.6, 20	23	4.0
AP289	Parma, P. de Ruiter, H. Fanti, R. Laing, R.	Bologna Bologna Bologna Cambridge	Brightness asymmetries of jets in low luminosity radio galaxies	6 w/GZ011	4	12.0
AR306	Reipurth, B. Rodríguez, L. Martí, J.	Chile NRAO-Socorro Barcelona	Proper motions of radio condensations in HH80-81	3.6, 6	18	6.0
AR310	Rudnick, L. Keohane, J. Perley, R.	Minnesota Minnesota NRAO-Socorro	Evolutionary studies of Cas A	6, 20	25, 26	24.0
AR312	Reid, M. Menten, K.	CfA CfA	SiO masers and stellar disks of red giants	0.7	24	8.0
AR317	Ratner, M. Bartel, N. Lestrade, J. Lebach, D. Shapiro, I.	CfA York U. JPL/Meudon France CfA CfA	Monitor IM Peg, Lambda, for NASA/Stanford gravity probe-B use	3.6	14	1.0
AS521	Seaquist, E. Roelfsema, P.	Toronto Groningen/Kepteyn	Observations of recombination line emission in M82 at 90cm	90 line	6	12.0
AS525	Sramek, R. Weiler, K. Van Dyk, S. Panagia, N.	NRAO-Socorro NRL NRL STScI	The properties of radio supernovae	1.3,2,3.6, 6,20	20	3.0
AS526	Stoche, J. Perlman, E. Wurtz, R.	Colorado Colorado Colorado	MS0205-135:A gravitationally lensed BLLAC?	3.6, 6	13	3.0
AS529	Swain, M. Bridle, A. Baum, S.	Rochester NRAO-CV STScI	Radio galaxy 3C353	3.6	13	10.0
AS530	Smith, H. Lonsdale, C. Lonsdale, C.	Smithsonian Haystack IPAC, Pasadena	Fine scale radio structure of ultraluminous IR galaxies	1.3, 2	26	12.0
AT154	Thorsett, S. Taylor, J. McKinnon, M. Hankins, T. Stinebring, D.	Caltech Princeton NRAO-Socorro NMIMT Oberlin	Timing fast pulsars at the VLA	6, 20, 90	10	10.9
AW348	Wolszczan, A. Frail, D.	Penn State NRAO-Socorro	Further astrometric obs of PSR 1257+12	20	22	10.0
AW350	Wills, B. Shastri, P.	Texas Calif., Berkeley	Core variability in lobe-dominated quasars	3.6	14, 30	2.5
AW372	Wagner, S. Quirrenbach, A.	Heidelberg Obsv NRL	What causes asymmetries in low luminosity jets of Seyfert galaxies?	3.6, 20	28	4.1
AW374	Wood, D.	NRAO-Socorro	7mm observations of ultracompact HII regions	0.7, 3.6	20	7.0
BR016	Readhead, A. Vermeulen, R. Backer, D.	Caltech Caltech Calif., Berkeley	3C84. w/AB698,AF261,AF260,AL317,Tests, AA172,AM445,AJ234,AF264	1.3, 3.6 Single Antenna VLBI	11, 27	30.1
GJ006	Junor, B. Biretta, J.	STScI	Evolution of M87 nuclear jet on light-month scales	1.3, 6 Phased Array VLBI	5	12.3

VLA Utilization Report March 1994

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
GR004	Rupen, M. Bartel, N. Conway, J. Beasley, A. Sramek, R. Romney, J. Bietenholz, M. Weiler, K. van Dyk, S. Panagia, N. Altunin, V. Cannon, W. Davis, R. Graham, D. Jones, D. Popelar, J. Rius, A. Titus, M. Venturii, T.	NRAO-Socorro York U. NRAO-Socorro NRAO-Socorro NRAO-Socorro York U. NRL NRL STScI JPL ICS NRAO-Socorro MPIfR JPL Ottawa DSN Haystack IdR, Buenos Aires	1993J in M81	2,3,6,6 Phased Array VLBI	14	15.6
GW011	Wehrle, A. Unwin, S. Gabuzda, D. Zook, A.	JPL Caltech Calgary Pomona	Evolution of parsec scale radio jet in 3C279. w/Startup, AE097,AP263,Tests,AB706	1.3, 6 3-Antenna VLBI	2	12.7
GZ011	Zensus, J. Lobanov, A. Leppanen, K. Unwin, S. Wehrle, A.	NRAO-Socorro NRAO-Socorro NRAO-Socorro Caltech JPL	Monitoring the parsec-scale jet structure of 3C345	1.3, 3.6, 6 3-Antenna VLBI w/AP289,AB701	4	13.4
	Staff	NRAO	Maintenance Operations Software General Tests			59.1 46.7 45.0 9.5

Average downtime: 5.2%

The array was scheduled for

Astronomical Programs: 589.1 hours (81.7% of the time)
 Scheduled: 65.7 hours (9.1% of time)
 Maintenance: 66.2 hours (9.2% of time)
 Total Scheduled: 721.0 hours (100%)

The array was in the A configuration from
 April 1 through April 30

Total number of astronomical programs: 52

The following independant proposals shared simultaneous observing time (27.5 hours total simultaneous observing):

Projects	Hours
AB700/Move/Op	2.0
AL314/Move/Op	1.5
AM435/AG404	4.0
AR277/AS525	2.0
AR277/AS525	2.0
AR277/AS525	2.0
AR277/AS525	2.0
AR277/AS525	2.0
AR277/AS525	2.0
AS525/AR277	2.0
AS525/AR277	2.0
AS525/AR277	2.0

VLA Utilization Report February 1994

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AA167	Afflerbach, A. Churchwell, E.	Wisconsin Wisconsin	H65 alpha observations of eleven ultra-compact HII regions	1.3 line	1	7.6
AB697	Beasley, A. Claussen, M. Dhawan, V.	NRAO-Socorro NRAO-Socorro NRAO-Socorro	A 43 GHz survey of active RS CVn systems	0.7, 1.3, 2, 3.6	10, 14	17.0
AB701	Browne, I. Wilkinson, P. Nair, S. Myers, S. Readhead, A. Pearson, T. Blandford, R. de Bruyn, A. Schilizzi, R.	Manchester Manchester NCRA, India Caltech Caltech Caltech NFRA NFRA	Search for gravitational lenses	3.6	26, 27, 28	13.4
AB703	Butler, B. Muhleman, D. Slade, M.	Caltech Caltech JPL	South polar ice on Mercury	3.6 line	21, 26	18.5
AB705	Burke, B. Becker, D. Lehar, J. Hewitt, J. Roberts, D.	MIT MIT Cambridge MIT Illinois	Time delay of the gravitational lens 0957+561	3.6, 6 w/BK021	13	2.5
AB707	Browne, I. Patnaik, A. Walsh, D. Wilkinson, P.	Manchester MPIfR Bonn Manchester Manchester	Monitoring smallest lens 0218+357: A step to measuring Ho	2, 3.6	28	1.1
AC373	Chen, H. Taylor, A. Dougherty, S.	Calgary Calgary Calgary	Sensitive radio survey of Be stars	3.6 w/Move/Op	15, 17	11.5
AD322	Duric, N. Irwin, J. Bloemen, H.	New Mexico Queens Leiden	Disk-Halo interface in NGC3556, NGC5775, NGC3079	6, 20	2	7.9
AD337	Drake, S. White, S.	USRA/NASA Maryland	Search for emission from very low mass stars and brown dwarfs	6, 20 w/Move/Op, BK021	11, 15	11.0
ADHOC	Palmer, Pat	Chicago	Ad Hoc		18	0.8
AH492	Hjellming, R. Gehrz, R. Seaquist, E. Taylor, A.	NRAO-Socorro Minnesota Toronto Calgary	Image and light curve evolution of the novae Puppis 1991 & Cygni 1992	1.3, 2, 3.6, 6, 20	15	2.0
AH507	Hankins, T. Moffett, D.	NMIMT NMIMT	Nanosecond time resolution observations of Crab pulsar "Giant pulses"	2, 3.6, 6, 20	8,13,15,18, 21,22	24.5
AK324	Kollgaard, R. Feigelson, E. Laurent-Muehleisen, Chester, M. Brinkmann, W. Hertz, P.	Penn State Penn State Penn State Penn State MPIfEP NRL	Optically quiet quasars	1.3, 2, 3.6, 6, 20 w/Move/Op	17	1.0
AK340	Kenny, H. Taylor, A. Seaquist, E.	CMC Kingston Calgary Toronto	Outburst flux measurements of the stellar jet source, CH Cygni	2, 6, 20	22	5.5
AK346	Kilkarni, S. Frail, D. Kassim, Y. Murakami, T.	Caltech NRAO-Socorro NRL ISAS Japan	Possible radio counterpart of SGR 1900+14	20, 90	7	3.2
AK350	Kellermann, K. Shaver, P. Wall, J.	NRAO-CV ESO RGO	High z quasars	3.6	22, 23, 28	3.5
AL314	Liang, E. Hjellming, R.	Rice NRAO-Socorro	Search for radio jets and variations in the annihilator 1H1822-371	2, 3.6, 6, 20	14	2.0
AL320	Lim, J. Biegging, J.	Caltech Arizona	Search for nonthermal emission from O,B, and Wolf-Rayet stars in close binary systems		18	7.5
AL322	Longair, M. Rottgering, H. Best, P. Riley, J.	Cavendish (Cambridge) MRAO (Cambridge) MRAO (Cambridge) MRAO (Cambridge)	3CR radiogalaxies at Z=1	3.5	26	15
AL323	Lim, J. White, S.	Caltech Maryland	Search for radio emission from K dwarf stars in the Pleiades	3.6	7, 11	20.0
AM348	Mehring, D. Palmer, P. Yusef-Zadeh, F. Goss, M.	Illinois Chicago Northwestern NRAO-Socorro	Sgr B1/B2	3.6, 6, 20	21	2.5
AM422	McMullin, J. Mundy, L.	Maryland Maryland	Radio Continuum Emission from IRAS 05338-0624	1.3, 2, 6	1	3.0

VLA Utilization Report February 1994

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AM429	Menten, K.	CfA	Search for CS(1,0) in the z = 2.286 galaxy IRAS 10214+4724	2 line	5	15.0
AM445	Moore, C. Hewitt, J.	MIT MIT	Time delays in the gravitational lens NG0414+0534	3.6	28	0.5
AM447	Mirabel, F. Rodriguez, L.	Saclay, France NRAO/UNAM	Hard X-ray transient GRS1716-249	6, 20	7, 13, 17, 22, 26	9.0
AN063	Norton, L.	Illinois	HI in NGC 185	20 line	3, 4	4.5
AP273	Philp, C. Evans, C. Frail, D. Leonard, P.	North Carolina North Carolina NRAO-Socorro Los Alamos	Pulsar companions to runaway OB stars	6, 20	12	20.0
AP281	Palmer, P. de Pater, I. Snyder, L.	Chicago Calif., Berkeley Illinois	OH emission from Comet Encke	20 line	3	9.0
AP282	Patnaik, A. Browne, I. Wilkinson, P. Wrobel, J.	MPIfR Bonn Manchester Manchester NRAO-Socorro	Phase calibrators for Merlin	3.6	19, 21, 24, 23	62.8
AS518	Stocke, J. Carilli, C. Urry, M. Donahue, M. Shull, J.	Colorado Leiden Neth STScI Carnegie Obsvs. Colorado	HI imaging of a low redshift LY alpha forest cloud	20 line	8, 11, 13	15.0
AS525	Sramek, R. Weiler, K. Van Dyk, S. Panagia, N.	NRAO-Socorro NRL NRL STScI	The properities of radio supernovae	1.3, 2, 3.6, 6, 20 w/Move/Op	8, 17, 18	11.0
AS527	Stahler, S. Andre, P.	Calif., Berkeley Saclay, France	Origin of the youngest naked T Tauri stars	3.6 w/Move/Op	10, 13, 17 BK021	12.0
AT153	Tafalla, M. Bachiller, R. Martin-Pintado, J.	Calif., Berkeley Yebe Obs Yebe Obs	High-velocity ammonia in the young bipolar outflow L1157	1.3 line	5	10.0
AU055	Uson, J. Goss, M.	NRAO-Socorro NRAO-Socorro	Observations of 3He in the galactic HII regions W3 and W43	3.6 line	4	9.0
AU056	Uson, J. Bagri, D. Cornwell, T.	NRAO-Socorro NRAO-Socorro NRAO-Socorro	Further observations of a proto-cluster of galaxies	90 line	1, 3, 4, 6	41.5
AW359	Wilcots, E. Hodge, P. Miller, B.	NRAO-Socorro Washington Washington	High resolution HI study of IC 10	20 line	6	8.0
BK021	Kemball, A. Taylor, G. Pearson, T. Readhead, T. Vermeulen, R.	NRAO-Socorro CalTech CalTech Caltech Caltech	VLBI search for Inter-Day variability	6 AS527, AB705, AD337, tests.	10, 13	18.7
GK011	Krichbaum, T. Otterbein, K. Witzel, A. Fricke, K. Kollatschny, W. Zensus, A.	MPIfR Bonn MPIfR Bonn MPIfR Bonn Göttingen Göttingen NRAO-Socorro	Imaging of a flux density limited sample of Seyfert 2 galaxies	6 phased array VLBI	27	24.4
GM017	Marcaide, J. Ros, E. Alberdi, A. Guirado, J. Rius, A. Shapiro, P. Whitney, A. Perez, E. Krichbaum, A. Schilizzi, G. Elosegui, P. Mantovani, F. Davis, R. de Bruyn, G. Diamond, P. Jones, D. Preston, R. Rogers, A. Trijilio, C. Witzel, A. Zensus, A.	Valencia, Spain Valencia, Spain IAA, Granada IAA, Granada IAA, Granada CfA Haystack Canarias, Spain MPIfR NFRA CfA IdR, Italy NRAO-Socorro NFRA NRAO-Socorro JPL JPL Haystack IdR, Italy MPIfR NRAO-Socorro	SN1993J: Distance to M81	1.3 phased array VLBI	20	12.0

VLA Utilization Report February 1994

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
GP012	Pauliny-Toth, I. Unwin, S. Wehrle, A. Zensus, A. Nicolson, G.	MPfR, Bonn CalTech Caltech NRAO-Socorro Hartebeesthoek USA	Monitoring of quasar 3C454.3	1.3 phased array VLBI	19	11.5
	Staff	NRAO	Maintenance Move/Operations Operations Software Student observations General tests		5, 12	35.9 61.5 32.1 33.2 4.0 66.5

Average downtime: 11.4%

The array was scheduled for

Astronomical Programs: 454.4 hours (67.4% of the time)
 Scheduled: 150.4 hours (22.3% of time)
 Maintenance: 69.1 hours (10.3% of time)
 Total Scheduled: 673.9 hours (100%)

The array was in the D configuration from
 February 1 through February 7
 AD configuration from
 February 7 through February 28

Total number of astronomical programs: 41

The following independant proposals shared simultaneous observing time (34.3 hours total simultaneous observing):

Projects	Hours
AB705/BK021	2.5
AC373/move/op	6.0
AD337/BK021	0.2
AD337/move/op	1.3
AK324/move/op	1.0
AS525/move/op	4.2
AS527/BK021	4.0
AS527/move/op	3.2
Tests/BK021	8.0
Tests/BK021	3.9

VLA Utilization Report January 1994

Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AA156	Antonucci, R. Barvainis, R.	Calif., Santa Barbara Haystack	Molecular gas in high-redshift quasars	1.3, 2 line	1, 4, 21	33.7
AA166	Anglada, G. Estalella, R. Torrelles, J. Rodriguez, L.	Barcelona Barcelona IAA, Andaluca Mexico/UNAM	The double radio source in the L723 outflow	1.3 line	22	10.0
AB456	Burke, B. Hewitt, J. Roberts, D.	MIT Haystack Brandeis	Monitoring 0957+561 A,B		15	2.5
AB692	Bastian, T. Frail, D. Beasley, A. Bookbinder, J.	NRAO-Socorro NRAO-Socorro NRAO-Socorro CfA	Search for pulsations or QPO in AE Aquarii	3.6	29	11.0
AC308	Condon, J. Cotton, W. Perley, R.	NRAO-CV NRAO-CV NRAO-Socorro	All sky survey	20	4,9-13,15, 17,18, 21-24, 28-30	182.7
AF211	Fiedler, R. Dennison, B. Johnston, K.	NRL VPI & SU NRL	Extreme scattering events/target of opportunity	6, 20	31	6.0
AF227	Fey, A. Gaume, R. Claussen, M. Nedoluha, G. Johnston, K.	NRL NRL NRAO-Socorro NRL NRL	"Cometary" HII regions	2	24	3.0
AF254	Fey, A. Gaume, R. Claussen, M. Johnston, K.	NRL NRL NRAO-Socorro NRL	Radio recombination line observations of G34.3+0.2	3.6 line	21	6.0
AF256	Fomalont, E. Kellermann, K. Partridge, B. Windhorst, R.	NRAO-CV NRAO-CV Haverford Arizona State	The radio sky at MICRO-JY levels	3.6	7, 15	14.5
AG389	Guedel, M. Schmitt, J. Benz, A.	Colorado/JILA MPIfEP, Garching ETH, Zurich	Radio & X-ray activity in two dMe binaries	3.6, 6	5, 6	9.1
AG395	de Geus, E. Digel, S. Puche, D.	Maryland CfA CfA	An HII region beyond the optical disk of the galaxy	6, 20 line	16	2.0
AG400	Goldschmidt, P. Miller, L.	Queen Mary ROE Edinburgh	Quasar evolution at radio and optical wavelengths	6	6, 8	19.2
AH502	Hofner, P. Cesaroni, R. Kurtz, S. Churchwell, E. Walmsley, M.	Wisconsin Arcetri, Italy Mexico/UNAM Wisconsin MPIR, Bonn	Hot ammonia in G45.47+0.05 and G45.12+0.13	1.3 line	13, 17, 18	18.1
AJ233	Jones, M. Saunders, R. Grainge, K.	Cambridge Cambridge Cambridge	Search for arcminute primordial fluctuations	3.6, 6	19	13.5
AK319	Katz-Stone, D. Rudnick, L.	Minnesota Minnesota	Three frequency mapping of FR 1 radiogalaxy 3C449	6	15	6.0
AK347	Knapp, J. Rupen, M. Holdaway, M.	Princeton NRAO-Socorro NRAO-Socorro	Neutral hydrogen at high galactic latitudes	20 line	9, 10	16.0
AK358	Kulkarni, S. Vasisht, G. Frail, D.	Caltech Caltech NRAO-Socorro	Monitoring SGR 1806-20 = SNR 10.0-0.3	3.6, 6, 20	7, 24	3.5
AL150	Lastrade, J. Preston, R.	JPL JPL	Statistical properties of RSCVn stars		8	1.0
AL294	Leone, F. Trigilio, C. Umana, G.	Catania Noto, Italy Noto, Italy	Testing the proposed models for radio emission from CP stars	1.3, 2, 6, 20	3	4.0
AL296	Lehnert, M. Armus, L.	Laval Caltech	The radio halo of NGC 660 - evidence for supernova-driven winds	6	3	5.0
AL309	Lang, K. Willson, R. Kile, J.	Tufts Tufts Tufts	VLA-Yohkoh SXT observations of Dynamic structures on the sun	20, 90	9, 10	5.5
AM418	McIntyre, V. Puche, D. Huchra, J.	CfA CfA CfA	Star formation & internal kinematics of irregular galaxies	20 line	20, 27	7.1
AM422	McMullin, J. Mundy, L.	Maryland Maryland	Radio Continuum Emission from IRAS 05338-0624	1.3, 2, 6	12	2.4
AM430	Mangum, J. Wootten, A.	Arizona NRAO-CV	S106FIR: YSO, protostar, or molecular debris?	1.3 line	28	6.5

VLA Utilization Report January 1994

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AM432	Marti, J. Rodriguez, L.	Barcelona Mexico/UNAM	Radio HH systems associated with young massive stars	3.6	11	7.3
AM449	Menten, K.	Cfa	Search for CH absorption toward star-forming regions	6 line	15	2.0
AP253	Puche, D. Westpfahl, D. Carignan, C.	Cfa NMIMT Montreal	Incipient spiral structure in UGC 2259	20 line	31	4.0
AR302	Rao, S. Briggs, F.	Pittsburgh Pittsburgh	21cm observations of large-diameter spirals	20 line	2	19.0
AR303	Rao, S. Briggs, F.	Pittsburgh Pittsburgh	The HI edge of NGC 628	20 line	7, 8, 14	36.0
AS333	Sramek, R. Weiler, K. van der Hulst, J. Panagia, N.	NRAO-Socorro NRL Groningen/Kapteyn STSci	Statistical properties of radio supernovae	2, 6	7, 13, 26	6.5
AT139	Taylor, C. Brinks, E. Skillman, E.	Minnesota NRAO-Socorro Minnesota	BCDs: search for neutral hydrogen companions	20 line	14	2.0
AT154	Thorsett, S. Taylor, J. McKinnon, M. Hankins, T. Stinebring, D.	Caltech Princeton NMIMT NMIMT Oberlin	Timing fast pulsars at the VLA	6, 20, 90	16	11.0
AU055	Uson, J. Goss, W.	NRAO-Socorro NRAO-Socorro	Observations of 3He in the galactic HII regions W3 and W43	3.6 line	23, 30	18.0
AU056	Uson, J. Bagri, D. Cornwell, T.	NRAO-Socorro NRAO-Socorro NRAO-Socorro	Further observations of a proto-cluster of galaxies	90 line	20, 31	13.6
AV209	Velusamy, T. Kuiper, T. Langer, W. Migenes, V.	JPL JPL JPL CSIRO	CCS (Jn=2,1->1,0) spectral line mapping of clumps in dark cloud cores	1.3 line	3, 5	7.0
AW368	Wilcots, E.	NRAO-Socorro	HI observations of barred magellanic spiral galaxies	20 line	16	11.9
AY057	Yun, M. Bryant, P. Scoville, N.	Caltech Caltech Caltech	Tidal remnants around ultraluminous IRAS galaxies	20 line	27	8.0
GR004	Rupen, M. Bartel, N. Conway, J. Beasley, A. Sramek, R. Romney, J. Bietenholz, M. Weiler, K. van Dyk, S. Davis, R. Rius, A. Altunin, V. Cannon, W. Graham, D. Jones, D. Panagia, N. Popelar, J. Titus, M. Venturi, T.	NRAO-Socorro Cfa NRAO-Socorro NRAO-Socorro NRAO-Socorro NRAO-Socorro York Univ. NRL NRL NRAL IAA, Granada JPL ICS MPIfr JPL STSci Ottawa Haystack IAR	1993J in M81	2, 3.6, 6	27	13.0
	Staff	NRAO	Maintenance Holiday Operations Software General Test			53.7 15.8 43.3 39.0 46.6

Average downtime: 3.7%

The array was scheduled for

Astronomical Programs: 547.7 hours (73.4% of the time)

Scheduled: 89.8 hours (12.0% of time)

Maintenance: 92.7 hours (12.4% of time)

Total Scheduled: 730.2 hours (97.9%)

The array was in the D configuration from

January 1 through January 31

Total number of astronomical programs: 38

There were no independent proposals sharing simultaneous observing time for the period.