

VLA Utilization Report December 1992

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AA134	Antonucci, R. Freedman, R. Coleman, P. Barvainis, R. Geller, R.	Calif., Santa Barbara Calif., Santa Barbara Groningen/Kapteyn Haystack Calif., Santa Barbara	Primeval galaxy/quasar search	20	10	2.0
AA150	Alexander, P. Leahy, J. Eales, S. Rawlings, S. Allington-Smith, J.	Cambridge Manchester Toronto Oxford Durham	Survey of DRAGNs at high redshift	20	4, 6	15.7
AA151	Anantharamaiah, K. Dwarakanath, K. Morris, D. Goss, W. Radhakrishnan, V.	Raman Institute NRAO-SOC Grenoble NRAO-SOC Raman Institute	Continuum observations of the source 1E 1740.7-2942	20	4	7.6
AB414	Becker, R. White, R.	Calif., Davis STScI	Monitoring radio stars HD193793 and P Cygni	2, 6	12	1.5
AB456	Burke, B. Hewitt, J. Roberts, D.	MIT MIT Brandeis	Monitoring 0957+561 A,B	6	10	2.0
AB660	Baan, W. Haschick, A. Besenfelder, E.	Arecibo Haystack North Carolina	The radio continuum of megamaser galaxies	6, 20	13	12.5
AB661	Benn, C. Wall, J. Rixon, G.	RGO RGO RGO	mJy radio sources from the 5C12 survey	2, 6	24	12.6
AB664	Bowers, P. Johnston, K.	NRL NRL	Circumstellar water masers	1.3 line	12	8.1
AB667	Burke, B. Becker, D. Conner, S. Avruch, M. Fletcher, A. Herold, L. Turner, E. Ekers, R. Wright, A.	MIT MIT MIT MIT MIT Princeton AT, Australia AT, Australia	MG VLA gravitational lens search	3.6	30	16.0
AB670	Barthel, P. Sramek, D. Sanders, D. Vestergaard, M.	Groningen/Kapteyn NRAO-SOC Hawaii Groningen/Kapteyn	PG 0052 - A resolved radio quiet QSO?	3.6, 6	3	5.0
AC316	Carilli, C. Owen, F. Harris, D.	NRAO-SOC NRAO-SOC CfA	Polarimetric imaging of 2 high redshift radio galaxies	2, 3.6, 6, 20 w/Move/Op	15	10.0
AC332	Cordova, F. Thompson, R.	Penn State Penn State	Radio astrometry of PSR 0656+14	20	22	5.6
AC335	Chambers, K. van Breugel, W. Charlot, S.	Hawaii Lawrence Livermore Calif., Berkeley	Minkowski's object	3.6, 6	14	6.0
AD302	Dunlop, J. Hughes, D. Rawlings, S.	Lancashire Lancashire Oxford	Radio-quiet quasars - starbursts or AGN?	3.6, 6	10	16.1
ADHOC	Leahy, P.	Manchester	Adhoc		7	0.8
AE090	Engels, D. Winnberg, A. Walmsley, M. Schmid-Burgk, J.	Hamburg Chalmers, Onsala MPIfR, Bonn MPIfR, Bonn	Water maser emission in circumstellar shells	1.3 line	28	3.0
AF217	Frail, D. Kulkarni, S. Thorsett, S.	NRAO-SOC Caltech Caltech	Young pulsar in G5.4-1.2	6 HTRP	11, 14	2.0
AF228	Foster, R. Tavani, M.	NRL Princeton	Search for pulsed emission from LSI +61 303	20	8	3.0
AF232	Fruchter, A. Thorsett, S. Goss, W.	Calif., Berkeley Caltech NRAO-SOC	Pulsar proper motions.	20	18, 19, 20	36.0
AF238	Fiebig, D. Menten, K. Duschl, W. Tscharnuter, W.	Heidelberg CfA Heidelberg Heidelberg	Water maser outbursts in Fu Orionis star RNO 1B	1.3 line	21	1.1
AG343	Giovannini, G. Feretti, L. Boehringer, H. Schwartz, R.	IdR, Bologna IdR, Bologna MPIfEP, Garching MPIfR, Bonn	Halo sources in A2255 and A2319	90	17	2.0

VLA Utilization Report December 1992

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AG357	Ge, J. Taylor, G. Owen, F.	Brandeis Caltech NRAO-SOC	Large Faraday rotations in cooling flow cluster A1795	2	27	8.1
AG358	Goss, W. Sramek, R. Cowan, J.	NRAO-SOC NRAO-SOC Oklahoma	Search for radio emission from supernova 1951H in M101	20	5	12.0
AG360	Gaume, R. Johnston, K. Goss, W. Wilson, T. Dickel, H.	NRL NRL NRAO-SOC MPIFR, Bonn Illinois	Recombination line from the gas in NGC 7538 IRS1	1.3 line	12, 20	20.0
AG362	Glendenning, B. Kronberg, P.	NRAO-CV Toronto	Search for time variability in the nuclear sources of NGC 2146	6	4	8.0
AG363	Greenhill, L.	Calif., Berkeley	Megamaser IC10 Continuum	1.3	3	1.0
AH390	Hjellming, R. Gehrz, R. Taylor, A. Sequist, E.	NRAO-SOC Minnesota Calgary Toronto	Monitoring radio novae.	3.6, 6, 20	27	6.0
AH437	Hewitt, J. Turner, E. Chen, G. Angelus, A.	MIT Princeton MIT MIT	Monitoring the "Einstein Ring" gravitation lens MG1131+0456	3.5, 6	10	2.0
AH470	Halpern, J. Moran, E. Becker, R. Bothun, G.	Calif., Riverside Columbia Calif., Davis Oregon	"Hidden" Seyfert 1 galaxies	2, 6, 20	21, 22	8.1
AH471	Hankins, T. Moffett, D. Novikov, A. Popov, M.	NMIMT NMIMT Lebedev Lebedev	Background source coincident with PSR 2016+28?	3.6, 20	8	2.6
AH478	Hewitt, J. Ellithorpe, J. Moore, C. Turner, E.	MIT MIT MIT Princeton	Monitoring gravitational lens MG0414+0534	2	2,6,12,15,23 ,26,28	6.5
AH480	Hes, R. Barthel, P. Perley, R. Zensus, A.	Groningen/Kapteyn Groningen/Kapteyn NRAO-SOC NRAO-SOC	Gas around quasars and radio galaxies	20	5	18.0
AJ221	Jacobson, A. Erickson, W. Mercier, C.	Los Alamos Maryland Paris Obs	Geoplasma Dynamics	90	1,4,8,10,12, 17,21,22,23, 26,27,29	12.1
AJ222	Johnston, K. Claussen, M. Bowers, P.	NRL NRAO-SOC NRL	Water masers of IK Tau	1.3 line	9	4.0
AJ223	Johnston, H. Kulkarni, S.	Utrecht Caltech	X-ray binary 4U 1820-30 in globular cluster NGC 6624	3.6	11	2.0
AK309	Kronberg, P. Glendenning, B. Sramek, R.	Toronto NRAO-CV NRAO-SOC	Monitoring SNR candidates in M82	2, 6	3	10.0
AK311	Kim, D. Sanders, D. Chambers, K.	Hawaii Hawaii Hawaii	Radio/Infrared correlation for IR ultraluminous galaxies	3.6, 20	20	8.1
AK313	Kollgaard, R. Gabuzda, D. Roberts, D. Wardle, J.	Penn State Calgary Brandeis Brandeis	Is the BL Lacertae object 1308+326 a lensed quasar?	3.6, 6, 20	17	4.1
AK316	Kollgaard, R. Holdaway, M. Burns, J.	Penn State NRAO-SOC New Mexico State	Proper motion in the jet of Cen A	6	17, 18	9.0
AL272	Leahy, J. Ferrini, I. Burns, J.	Manchester King Fahd New Mexico State	Solving the RM ambiguity in 3C47	20	7	9.1
AL273	Leahy, J. Bridle, A. Strom, R.	Manchester NRAO-CV NFRA	3C28: A neglected radio galaxy	20	7	2.0
AL275	Lacy, M. Rawlings, S.	Oxford Oxford	The bright radio-quiet quasar E1821+643	2, 3.6, 6, 20	15	4.0
AL276	Laurent-Muehleisen, Kollgaard, R. Feigelson, E.	Penn State Penn State Penn State	Jet morphology of X-ray selected BL Lacertae objects	6, 20 w/Move/Op	23	10.1
AL280	Ludke, E. Conway, R. Garrington, S.	Manchester Manchester Manchester	Faraday rotation in sources with depolarization asymmetries	2, 3.6	13	17.0

VLA Utilization Report December 1992

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AM373	Mantovani, F. Browne, I. Junor, B. Morganti, R. Padrielli, L.	IdR, Bologna Manchester NRAO-SOC IdR, Bologna IdR, Bologna	Extended low-frequency variable sources	90	9, 21	3.5
AM376	Marscher, A. Bania, T.	Boston Boston	Search for variable molecular absorption	6 line	27	8.0
AM377	Martin-Pintado, J. Gaume, R. Bachiller, R. Johnston, K.	Yebes Obs NRL Yebes Obs NRL	Physical properties of the molecular outflow in CRL 618	1.3 line	21	4.0
AM379	Mirabel, F. Rodriguez, L.	CNRS, France Mexico/UNAM	Gamma ray sources 1E1740.7-2942 and GRS1758-258	6, 20 line	11	4.0
AM381	Moran, E. Helfand, D. Becker, R. White, R.	Columbia Columbia Calif., Davis STScI	Radio properties of X-ray passive galaxies	3.6, 20	14	3.3
AM382	Muhleman, D. Butler, B. Slade, M.	Caltech Caltech JPL	Radar imaging of Mars	3.6 line	8, 28	16.0
AM384	Mulchaey, J. Wilson, A.	Maryland STScI	Comparison of Seyfert I/Seyfert II emission in S0 and E hosts	3.6, 20	31	8.0
A0112	O'Dea, C. Baum, S.	STScI STScI	Polarization and RM of the Einstein Ring 0218+357	1.3, 2, 3.6	11	8.0
A0113	Oren, A. Wolfe, A.	Calif., San Diego Calif., San Diego	Faraday rotation mapping of 3C196	6	29	10.7
AP240	Puche, D. Westpfahl, D. Wrobel, J.	CfA NMIMT NRAO-SOC	HI absorption in dwarf spheroidal galaxies	20 line	8	2.0
AP243	Patnaik, A. Browne, I. King, L. Walsh, D. Wilkinson, P.	Manchester Manchester Manchester Manchester Manchester	Monitoring the smallest lens 0218+357	2, 3.6	2,6,12,14,15, 23,26,28	6.5
AP245	Perlman, E. Stocke, J. Burns, J.	Colorado Colorado New Mexico State	Evolution of radio galaxies: The distant cluster sample	20	2	14.0
AP262	Palmer, P. Ostro, S. de Pater, I. Snyder, L. Yoemans, D.	Chicago JPL Calif., Berkeley Illinois JPL	Radar study of Asteroid 4179 Toutatis	3.6	16	3.5
AR278	Rodriguez, L. Canto, J. Raga, A. Noriega-Crespo, A. Reipurth, B.	Mexico/UNAM Mexico/UNAM Manchester Washington ESO	HH1-2 region	3.6, 6	17, 18	22.1
AR279	Roettiger, K. Burns, J. Loken, C. Owen, F.	New Mexico State New Mexico State New Mexico State NRAO-SOC	Steep spectrum radio sources in rich clusters	90	1	0.5
AR283	Reid, M. Menten, K.	CfA CfA	OH masers and the galactic magnetic field	20 line	26	4.0
AR284	Ridgway, S. Chambers, K. Stockton, A.	Hawaii Hawaii Hawaii	Nature of low radio luminosity $z \sim 1$ quasars	20	15	9.0
AR286	Rottgering, H. O'Dea, C.	Leiden STScI	Nature of single tailed sources	3.6	26	14.1
AS333	Sramek, R. Weiler, K. Van Dyk, S. Panagia, N.	NRAO-SOC NRL NRL STScI	Statistical properties of radio supernovae	2, 6	1, 19	4.5
AS487	Seaquist, E.	Toronto	Expansion of the compact nebula VY 2-2	1.3, 2, 3.6, 6, 20	31	4.0
AV193	van der Hucht, K. Williams, P. Spoelstra, T.	Utrecht Royal Obs NFRA	Wolf-Rayet object WR125	2, 6, 20	23	1.0
AV201	Vasisht, G. Kulkarni, S. Frail, D.	Caltech Caltech NRAO-SOC	Proper motion measurements of PSR 1800-21	20	20	1.0
AW230	Wrobel, J. Unger, S.	NRAO-SOC RGO	International monitoring of the Seyfert NGC 5548	3.6	8, 30	2.2
AY053	Yin, Q. Heeschen, D.	NRAO-CV NRAO-CV	Supernova activity in Mkn 297	2, 3.6, 6, 20	14	4.5

VLA Utilization Report December 1992

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AZ059	Zhao, J. Goss, W.	NRAO-SOC NRAO-SOC	High-velocity cloud at the Galactic Center	20 line	30	4.0
AZ060	Zhao, J. Goss, W.	NRAO-SOC NRAO-SOC	Galactic center transient at two years of age	3.6, 6, 20 w/Test/Wood	10, 23	6.0
BM012	Mutel, R. Bookbinder, J. Beasley, T. Neff, J.	Iowa CfA NRAO-SOC Penn State	Active system V711 Tauri	2, 3.6, 6, 20	8-10,12,13, 15,16	10.0
BS002	Spangler, S. Cordes, J.	Iowa Cornell	Heavy & variable interstellar scattering in vicinity of Cygnus OB1	6, 20 Phased Array MKIII VLBI	6	12.0
	Staff	NRAO	Maintenance Move/Operations Holiday/Shutdown Operations Software Testing		31	60.1 9.9 34.3 56.7 33.6 19.3

The average downtime was 3.9%.

The array was scheduled for
 537.5 hours (72.0 % of time) for astronomical programs
 80.5 hours (10.8 % of time) for tests/calibration
 93.7 hours (12.6 % of time) for maintenance
 Total 711.7 hours (95.4 %) scheduled.

The array was in the A configuration from December 1 to December 31

Total number of astronomical programs was 68.

The following independent proposals shared simultaneous observing time (10.6 hours total simultaneous observing):

Projects	Hours	Projects	Hours
ac316/move/op	4.9		
al276/move/op	5.0		
az60/test/wood	0.7		

VLA Utilization Report November 1992

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✓ AA149	Akujor, C. Booth, R. Garrington, S. Spencer, R. Ludke, E.	Chalmers, Onsala Chalmers, Onsala Manchester Manchester Manchester	Depolarisation in compact steep-spectrum sources	3.6, 20 w/GW6	10	7.1
✓ AA153	Akujor, C.	Chalmers, Onsala	Disrupted kpc-scale jet in the quasar 3C179	3.6	11	3.0
✓ AB414	Becker, R. White, R.	Calif., Davis STSci	Monitoring radio stars HD193793 and P Cygni	2, 6	21	1.5
✓ AB456	Burke, B. Hewitt, J. Roberts, D.	MIT MIT Brandeis	Monitoring 0957+561 A,B	6 w/GZ9	11	2.5
✓ AB618	Baldwin, J. Wilson, A.	NOAO STSci	Seyfert galaxy NGC 3393	3.6, 6, 20	29	6.0
✓ AB631	Browne, I. King, L. Patnaik, A. Walsh, D. Wilkinson, P.	Manchester Manchester Manchester Manchester Manchester	Magnetic field structure in a distant galaxy	2 w/GPB	18	8.5
✓ AB655	Bastian, T. Cornwell, T.	NRAO-SOC NRAO-SOC	Solar wind microturbulence inside of two solar radii	2, 3.6, 6, 20 w/GS8, GW6, GZ9	2, 3, 4, 6, 10, 11	16.6
✓ AB657	Baum, S. O'Dea, C. Heckman, T.	Johns Hopkins STSci Johns Hopkins	Cold HI in cooling flow clusters	20 line w/GD3, GPB	16, 19	12.0
✓ AB658	Baum, S. O'Dea, C. Pedlar, A. Brinks, E. Gallimore, J.	Johns Hopkins STSci Manchester NRAO-SOC Maryland	HI absorption as a probe of the obscuring torus in Seyfert galaxies	20 line	21	16.0
✓ AB662	Birkinshaw, M. Worrall, D.	Cfa Cfa	HI towards the core of NGC 6251	20 line	25	5.0
✓ AB665	Brown, A. Bromage, G. Ambruster, C.	Colorado Rutherford Villanova	HD197890 (Speedy Mic) rotational modulation	3.6, 6, 20 w/GS8	4	6.0
✓ AB666	Browne, I. Baldwin, J. Netzer, H. Wills, B. Wills, D.	Manchester NOAO Tel-Aviv Texas Texas	Structures for radio loud HST quasars	20 w/GPB	19	6.5
✓ AB669	Bookbinder, J. Guedel, M. Saar, S.	Cfa Colorado Cfa	M dwarfs	2, 3.6, 6, 20	6, 28	10.0
✓ AC316	Carilli, C. Owen, F. Harris, D.	NRAO-SOC NRAO-SOC Cfa	Polarimetric imaging of 2 high redshift radio galaxies	2, 3.6, 6, 20 w/GB15	7	10.0
✓ AC329	Cecil, G. De Pree, C.	North Carolina North Carolina	Nuclear outflow in NGC 6951	20 w/GB15	7	4.0
✓ AC334	Cowan, J. Crane, P. Dickel, J. Roberts, D.	Oklahoma Illinois Illinois	Search for variability of the nuclear radio source in M31	3.6 w/GS8	3, 4	16.5
✓ AC336	Chen, G. Hewitt, J.	MIT MIT	Higher resolution maps of MG1131+0456	1.3, 6 w/GS8	5	8.0
✓ AC337	Clancy, T. Grossman, A. Muhleman, D.	Colorado Maryland Caltech	Mapping seasonal variations of Mars water vapor	1.3 line	1	11.0
✓ AC341	Curiel, S. Rodriguez, L. Moran, J.	Cfa Mexico/UNAM Cfa	Radio monitoring of the Serpens radio jet	2, 3.6, 6 w/GW6	10	3.0
✓ AC342	Cowan, J. Crane, P. Dickel, J.	Oklahoma Illinois	Search for a compact nuclear source in the galaxy M33	3.6 w/GW6	9	12.0
✓ AD294	David, L. Harris, D.	Cfa Cfa	NGC 5044 - Central dominant galaxy in a group with a cooling flow	20	27	3.2
ADHOC	Becker, R.	Calif., Davis	Adhoc	 w/GB15, GZ9	6, 8	11.2
✓ AF217	Frail, D. Kulkarni, S. Thorsett, S.	NRAO-SOC Caltech Caltech	Young pulsar in G5.4-1.2	6 HTRP	1	0.9
✓ AF230	Felli, M. Taylor, G.	Arcetri Caltech	Radio emission from stellar type sources within star forming regions	3.6, 6 w/GL10	12	3.0
✓ AF236	Foster, R. Wolszczan, A.	NRL Princeton	The new millisecond pulsar J1713+0747	20 line w/GS8	1, 3, 4	3.1

VLA Utilization Report November 1992

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✓ AF237	Florkowski, D. Johnston, K. deVegt, C.	USNO NRL Hamburger Sternwarte	Precise positions of UX Ari & HR5110	3.6, 6 w/GZ8	11	12.0
✓ AF238	Fiebig, D. Menten, K. Duschl, W. Tscharnuter, W.	MPIFR, Bonn CfA Heidelberg Heidelberg	Water maser outbursts in Fu Orionis star RNO 1B	1.3 line	7, 28	2.0
✓ AG361	Gelderman, R. Bridle, A. Whittle, D.	Virginia NRAO-CV Virginia	Interactions between jets and ionized gas in AGN	3.6, 6, 20 w/GG12	18	6.0
✓ AH390	Hjellming, R. Gehrz, R. Taylor, A. Sequist, E.	NRAO-SOC Minnesota Calgary Toronto	Monitoring radio novae.	3.6, 6, 20	25	2.0
✓ AH437	Hewitt, J. Turner, E. Chen, G. Angelus, A.	MIT Princeton MIT MIT	Monitoring the "Einstein Ring" gravitation lens MG1131+0456	3.6, 6	6	2.5
✓ AH443	Ho, P. Haxthausen, E. Yun, M. Wiseman, J. Gomez, J.	CfA CfA CfA CfA CfA	Central jet in the HH1-HH2 system	1.3 line	7	10.0
✓ AH473	Hughes, V.	Queens	Monitoring of Cepheus A	2, 6, 20	25	3.8
✓ AH475	Harris, D. Lupino, G.	CfA Hawaii	Structure of 4C67.17.1	20 w/GS8	4	3.0
✓ AH476	Heiles, C. Wilner, D. MacLOW, M. Churchwell, E. Wood, D.	Calif., Berkeley Calif., Berkeley NASA/Ames Wisconsin NRAO-SOC	HI absorption in ultracompact HII regions	20 line w/GL10	13	8.0
✓ AH477	Hewitt, J. Katz, C. Turner, E.	MIT MIT Princeton	Gravitational lens MG0414+0534	1.3, 2, 3.6, 6, 20 w/AP243, GS8, GB15, GL10	1,3,4,7,12, 14,17,22,24, 25,27,28,30	11.0
✓ AI044	Impey, C. Hooper, E. Foltz, C.	Arizona Arizona MMT	Radio structure of optically selected quasars	3.6	20, 29, 30	18.5
✓ AJ221	Jacobson, A. Erickson, W. Mercier, C.	Los Alamos Maryland Paris	Geoplasma Dynamics	90 w/GB15, GL10, GD3	1,7,12,13,15 17,22,24,27 28,29	17.6
✓ AJ225	Johnston, K. Schwartz, P. deVegt, C.	NRL NRL Hamburger Sternwarte	Precise position and motion of γ Tau	2, 3.6 w/GD3	16	6.0
✓ AK312	King, L. Patnaik, A. Browne, I. Wilkinson, P.	Manchester Manchester Manchester Manchester	Gravitational lens candidates	1.3, 2, 3.6, 6, 20 w/GL10	13, 15	16.0
✓ AK315	Kuhn, O. Elvis, M.	Harvard CfA	Radio loudness vs redshift for quasars	6, 20	27	14.8
✓ AL269	Lyne, A. Biggs, J. Goss, W.	Manchester NASA/GSFC NRAO-SOC	Measurement of the position and eclipse of PSR 1718-19	20 w/GZ9	11	8.0
✓ AL270	Laing, R. Scheuer, P. Turner, S. Bridle, A. Browne, I. Burns, J. Dreher, J. Hough, D. Lonsdale, C. Wardle, J.	RGO Cambridge Cambridge NRAO-CV Manchester New Mexico State NASA/Ames Trinity Haystack Brandeis	Spectrum vs jet side in quasars	20	1	2.0
✓ AL277	Lehar, J. Kochanek, C. Burke, B. Langston, G.	Cambridge CfA MIT NRAO-CV	Gravitational lens MG1549+3047	2, 3.6, 6, 20 w/GG12, GP8	18	8.0
✓ AM379	Mirabel, F. Rodriguez, L.	CNRS, France Mexico/UNAM	Gamma ray sources 1E1740.7-2942 and GRS1758-258	6, 20 line	3	4.0
✓ AM380	Moran, E. Helfand, D. Becker, R. White, R.	Columbia Columbia Calif., Davis STScI	New components of the cosmic X-ray background	20 w/GW6	10	3.0

VLA Utilization Report November 1992

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✓ AM383	Muhleman, D. Butler, B. Slade, M.	Caltech Caltech JPL	Radar imaging of Mercury Caloris Environs	3.6 line	21, 23	20.0
AP243	Patnaik, A. Browne, I. King, L. Walsh, D. Wilkinson, P.	Manchester Manchester Manchester Manchester	Monitoring the smallest lens 0218+357	2, 3.6 w/AH477,GS8,GB15,GL10	1,3,4,6,12, 14,17,22,24, 25,27,28,30	11.2
✓ AP246	Pratap, P. Menten, K. Snyder, L.	Cfa Cfa Illinois	Search for 6cm formaldehyde masers	6 line	22	10.0
✓ AR276	Rodriguez, L. Canto, J. Torrelles, J. Anglada, G.	Mexico/UNAM Mexico/UNAM IAA, Granada Barcelona	HL Tau outflow	3.6	20	10.0
✓ AR278	Rodriguez, L. Canto, J. Raga, A. Noriega-Crespo, A. Reipurth, B.	Mexico/UNAM Mexico/UNAM Manchester Washington ESO	HH1-2 region	3.6, 6	1	11.0
✓ AR279	Roettiger, K. Burns, J. Loken, C. Owen, F.	New Mexico State New Mexico State New Mexico State NRAO-SOC	Steep spectrum radio sources in rich clusters	90	30	9.6
✓ AR280	Rowan-Robinson, M. Sopp, H. McMahon, R.	Queen Mary Queen Mary Cambridge	Two super-luminous infrared galaxies	3.6	25	4.5
✓ AR285	Riley, J. Warner, P.	Cambridge Cambridge	Sources with 151 MHz flux density variations	3.6, 20, 90	15	11.5
✓ AS333	Sramek, R. Weiler, K. van Dyk, S. Panagia, N.	NRAO-SOC NRL NRL STScI	Statistical properties of radio supernovae	2, 6	3	1.5
✓ AS484	Salter, C. Junor, B. Bignell, C. Saikia, D.	NRAO-GB NRAO-SOC NRAO-SOC GMRT, Pune	Optically-thick planetary nebulae	90	7	3.0
✓ AS489	Skinner, C. Meixner, M.	Lawrence Livermore Calif., Berkeley	The ionized zone in IRAS 21282+5050	1.3, 2, 3.6, 6, 20	2	9.4
✓ AT134	Taylor, A. Dougherty, S.	Calgary Calgary	Monitoring of radio variable Be stars	3.6	24	4.6
✓ AT141	Tofani, G. Taylor, G. Felli, M.	Arcetri Caltech Arcetri	Position & structure of H2O masers assoc. w/CO outflows	1.3, 3.6 line	23	10.0
✓ AT144	Taylor, G. Ge, J. Owen, F. Baum, S. O'Dea, C.	Caltech Brandeis NRAO-SOC Johns Hopkins STScI	Faraday rotation in cooling flow clusters.	3.6, 6 w/GL10	14	24.0
✓ AT145	Thorsett, S. Taylor, J. McKinnon, M. Hankins, T. Stinebring, D.	Caltech Princeton NRAO-GB New Mexico Tech Oberlin	Timing fast pulsars	6, 20, 90	20	10.5
✓ AV193	van der Hucht, K. Williams, P. Spoelstra, T.	Utrecht Royal Obs NFRA	Wolf-Rayet object WR125	2, 6, 20	28	1.0
✓ AW230	Wrobel, J. Unger, S.	NRAO-SOC RGO	International monitoring of the Seyfert NGC 5548	3.6 w/GZ9	9, 21	2.0
✓ AW338	Wilner, D. Heiles, C. Forster, R.	Calif., Berkeley Calif., Berkeley Calif., Berkeley	Mapping 21cm line absorption against the G5.88 ultracompact HII region	20 line	29	8.1
✓ AW339	Wilson, A. Ulvestad, J.	STScI JPL	High resolution images of NGC 1068	1.3 w/GW6	10	8.0
✓ AX001	Xu, W. Readhead, A. Pearson, T.	Caltech Caltech Caltech	Search for extended emission around core dominated sources	20 line w/GS8	5	15.0
✓ AY052	Yang, H. Skillman, E.	Minnesota Minnesota	Evolution of an SNR in a giant HII region	20, 90	22	8.0
✓ AZ053	Zhao, J. Carilli, C. Anantharamaiah, K. van Gorkom, J.	NRAO-SOC NRAO-SOC Raman Institute Columbia	Seyfert NGC 1068	90	19	5.0

VLA Utilization Report November 1992

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
✓ AZ060	Zhao, J. Goss, W.	NRAO-SOC NRAO-SOC	Galactic center transient at two years of age	3.6, 6, 20	28	2.0
✓ AZ061	Zhao, J. Backer, D. Goss, W.	NRAO-SOC Calif., Berkeley NRAO-SOC	Search for extremely large Faraday rotation at the Galactic Center	3.6, 6 line	27	8.5
✓ GB015	Bloom, S. Marscher, A. Gear, G.	Boston Boston Royal Obs	Strong millimeter sources	1.3	6	14.1
✓ GD003	Cotton, W. Dallacasa, D. Fanti, C. Fanti, R. Foley, A. Schilizzi, R. Spencer, R.	NRAO-CV CNR, Bologna CNR, Bologna CNR, Bologna NFRA NFRA Manchester	Polarization of 3C138	18	16	11.6
✓ GG012	Giovannini, G. Venturi, T. Marcaide, J. Wehrle, A.	CNR, Bologna CNR, Bologna IAA, Granada IPAC	Low-power radio galaxy 1144+35	18	18	11.2
✓ GJ004	Junor, W. Biretta, J. Muxlow, T.	NRAO-SOC STScI Manchester	Structure and evolution on light-month scales in the nucleus of M87	1.3	15	13.0
✓ GL010	Leppanen, K. Valtaoja, E. Schilizzi, R. Pilbratt, G.	NRAO-SOC Metsahova NFRA ESTEC	Sample of 20 AGN	1.3	12, 13, 14	45.0
✓ GM011	Marcaide, J. Rioja, M. Alberdi, A. Cotton, W. Romney, J. Preston, R. Kardashev, N. Shapiro, I.	IAA, Granada IAA, Granada IAA, Granada NRAO-CV NRAO-SOC JPL Moscow Cfa	1.3cm observations of Sgr A*	1.3	8	11.5
✓ GP008	Akujor, C. Porcas, R. Fejes, I.	Chalmers, Onsala MPIfR, Bonn FSGO, Budapest	Global imaging of the curved-jet sources 3C216 and 3C446	18	18	24.1
✓ GS008	Schilizzi, R. Nan, R. Fanti, C. Fanti, R. Dallacasa, D. Spencer, R.	NFRA Beijing CNR, Bologna CNR, Bologna CNR, Bologna Manchester	20 3CR CSS radio sources.	90	3, 4	48.3
✓ GW003	Wullner, K. Krichbaum, T. Witzel, A. Hummel, C. Zensus, A.	MPIfR, Bonn MPIfR, Bonn MPIfR, Bonn USNO NRAO-SOC	The quasar 0153+744, a VLBI gravitational lens?	1.3	6	11.3
✓ GW006	Wehrle, A. Unwin, S. Abraham, Z. Carrara, E. Zensus, A. Urry, C. Madejski, G.	IPAC Caltech Sao Paulo Sao Paulo NRAO-SOC STScI NASA/GSFC	Coordinated VLBI ultraviolet, X-ray and gamma-ray observations of 3C279	1.3	9, 10	30.4
✓ GZ008	Zensus, A. Unwin, S. Wehrle, A.	NRAO-SOC Caltech IPAC	Evolution of the parsec-scale structure of 3C345	1.3	11	13.1
✓ GZ009	Zensus, A. Unwin, S.	NRAO-SOC Caltech	3C273	1.3	9	8.8
✓ US003	Skinner, S. Linsky, J. Phillips, R.	Colorado Colorado Haystack	VLBI observations of the unusual PMS star MWC297	3.6	8	2.4
	Staff	NRAO	Baselines, Pointing, Delays Maintenance Software Testing Thanksgiving		26	31.0 28.5 24.0 22.5 26.0

The average downtime was 6.2%.

The array was scheduled for

596.5 hours (82.6 % of time) for astronomical programs
47.1 hours (6.5 % of time) for tests/calibration
52.0 hours (7.2 % of time) for maintenance
Total 695.6 hours (96.3 %) scheduled.

The array was in the A configuration from November 1 to November 30

Total number of astronomical programs was 82.

The following independent proposals shared simultaneous observing time (206.5 hours total simultaneous observing):

Projects	Hours	Projects	Hours
aa149/gw6	7.1	ah476/gl10	2.1
ab456/gz8	1.9	ah477/gb15	1.0
ab631/gp8	8.5	ah477/gl10	0.7
ab655/gs8	5.0	ah477/gl10	0.7
ab655/gw6	1.4	ah477/gs8	1.0
ab655/gz8	1.5	aj221/gb15	1.0
ab657/gd3	4.0	aj221/gd3	1.5
ab657/gp8	5.3	aj221/gl10	1.0
ab665/gs8	5.8	aj221/gl10	1.5
ab665/gs8	0.2	aj225/gd3	6.0
ab666/gp8	6.5	al269/gz8	8.0
ac316/gb15	10.0	al277/gg12	4.2
ac329/gb15	1.0	al277/gp8	3.8
ac334/gs8	3.4	al312/gl10	8.0
ac334/gs8	7.5	am380/gw6	3.0
ac336/gs8	8.0	ap243/gb15	1.1
ac341/gw6	1.7	ap243/gl10	0.8
ac341/gw6	1.3	ap243/gl10	0.8
ac342/gw6	10.7	ap243/gs8	1.0
adhoc/gb15	0.0	at144/gl10	15.5
adhoc/gz9	3.7	aw230/gz9	1.0
af230/gl10	3.0	aw339/gw6	5.2
af236/gs8	1.0	ax1/gs8	12.4
af237/gz8	1.8	base/gl10	4.9
ag361/gg12	6.0	software	1.1
ah475/gs8	3.0	test/maint/gd3	0.0
ah476/gl10	5.9	test/cotton/gg12	1.0
		test/gz9	3.0

VLA Utilization Report October 1992

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
✓ AB414	Becker, R. White, R.	Calif., Davis STScI	Monitoring radio stars HD193793 and P Cygni	2, 6	22	1.7
✓ AB456	Burke, B. Hewitt, J. Roberts, D.	MIT MIT Brandeis	Monitoring 0957+561 A,B	6 w/AW334	23	2.0
✓ AB655	Bastian, T. Cornwell, T.	NRAO-SOC NRAO-SOC	Solar wind microturbulence inside of two solar radii	3.6, 6, 20 w/AW334	7, 8	18.0
✓ AB665	Brown, A. Bromage, G. Ambruster, C.	Colorado Rutherford Villanova	Rapid rotator BD +8 102	3.6, 6, 20 w/AW334	7	4.0
✓ AC337	Clancy, T. Grossman, A. Muhleman, D.	Colorado Maryland Caltech	Mapping seasonal variations of Mars water vapor	1.3 line	25, 31	13.0
✓ AC339	Claussen, M. Nedoluha, G.	NRAO-SOC NRL	Stokes polarimetry of OH maser emission from late-type star UX Cyg	20 line	26	9.0
✓ AC340	Coe, M. Jones, L. Lehto, H.	Southampton Southampton Turku	Radio counterpart of the X-ray pulsar 1E2259+586	20 w/AW334	13	8.1
✓ AD296	Drake, S. Barett, P. Arnaud, K.	USRA/GFSC USRA/GSFC Maryland	Survey of single, magnetic, cool white dwarfs	3.6 w/AW334, Move/Op	5, 7	11.8
✓ AF217	Frail, D. Kulkarni, S. Thorsett, S.	NRAO-SOC Caltech Caltech	Young pulsar in G5.4-1.2	6, 20 HTRP w/AW334	9	1.0
✓ AF228	Foster, R. Tavani, M.	NRL Princeton	Search for pulsed emission from LSI +61 303	20 w/AW334, Move/Op	10	3.0
✓ AF233	Feigelson, E. Brinkmann, W. Kollgaard, R. Reich, W. Voges, W.	Penn State MPIFEP, Munich Penn State MPIFR, Bonn MPIFEP, Munich	X-ray emitting AGN from the GB 5GHz survey	6 w/AW334	3, 8, 19	38.0
✓ AF238	Fiebig, D. Menten, K. Duschl, W. Tscharnuter, W.	MPIFR, Bonn CfA Heidelberg Heidelberg	Water maser outbursts in Fu Orionis star RNO 1B	1.3 line	28	1.6
✓ AG367	Guedel, M. Lim, J.	Colorado Caltech	Active main-sequence K stars	3.6	11	22.0
✓ AG368	Guedel, M. Lim, J.	Colorado Caltech	Radio emission from nearby active main-sequence K stars	3.6 w/AW334	4	23.0
✓ AH390	Hjellming, R. Gehrz, R. Taylor, A. Seagquist, E.	NRAO-SOC Minnesota Calgary Toronto	Monitoring radio novae.	3.6, 6, 20 w/AW334	2, 22, 30	9.5
✓ AH424	Han, X. Hjellming, R.	NMIMT NRAO-SOC	The radio remnant of the 1989 outburst of V404 Cyg.	3.6, 6 w/AW334	20	5.0
✓ AH437	Hewitt, J. Turner, E. Chen, G. Angelus, A.	MIT Princeton MIT MIT	Monitoring the "Einstein Ring" gravitation lens MG1131+0456	6, 3.6	24	2.0
✓ AH465	Hankins, T. McKinnon, M. Moffett, D.	NMIMT NRAO-GB NMIMT	Development of pulsar polarimetry at P-band	90 HTRP w/AW334	2, 3	10.9
✓ AJ221	Jacobson, A. Erickson, W. Mercier, C.	Los Alamos Maryland Paris	Geoplasma Dynamics	90	30	3.0
✓ AJ222	Johnston, K. Claussen, M. Bowers, P.	NRL NRAO-SOC NRL	Water masers of IK Tau	1.3 line	28	4.0
✓ AK310	Kulkarni, S. Vasisht, G. Wood, D.	Caltech Caltech NRAO-SOC	G70.7+1.2: A binary pulsar powered bow shock?	3.6, 6, 20	31	10.0
✓ AK317	Kassim, N. Perley, R. Erickson, W. Dwarakanath, K. Taylor, G.	NRL NRAO-SOC Maryland NRAO-SOC Caltech	75 MHz imaging: the weaker sources	90	24, 29	18.0
✓ AL267	Lim, J. Drake, S. White, S. Kundu, M.	Caltech USRA/GFSC Maryland Maryland	Modelling the magnetospheres of Bp stars.	3.6 w/AW334	11, 13, 15	30.1

VLA Utilization Report October 1992

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
✓ AL270	Laing, R. Scheuer, P. Turner, S. Bridle, A. Browne, I. Burns, J. Dreher, J. Hough, D. Lonsdale, C. Wardle, J.	RG0 Cambridge Cambridge NRAO-CV Manchester New Mexico State NASA/Ames Trinity Haystack Brandeis	Spectrum vs jet side in quasars	20	31	8.0
✓ AL274	Lehto, H. Johnsson, D.	Turku Wales	The jet in R Aquarii system	1.3, 3.6, 6	29	8.0
✓ AL282	Lonsdale, C. Lonsdale, C. Smith, G.	Haystack Caltech Calif., San Diego	VLBI Phase reference sources for starburst galaxies	20 w/AW334	21, 22	9.0
✓ AM374	Mehringer, D. Palmer, P. Goss, W. Yusef-Zadeh, F.	Chicago Chicago NRAO-SOC Northwestern	W51 - the ultracompact H II regions	3.6, 6, 20	25	12.0
✓ AN058	Navarro, J. Kulkarni, S. Vasisht, G. Tanaka, Y. Nagase, F. Frail, D. Strom, R.	Caltech Caltech Caltech ISAS, Japan ISAS, Japan NRAO-SOC NFRA	Monitoring quiescent LMXBs	20 w/AW334	12	5.8
✓ AP231	Patnaik, A. Browne, I. King, L. Wilkinson, P. Wrobel, J.	Manchester Manchester Manchester Manchester NRAO-SOC	Phase calibrators for Merlin: dec 0-20d	3.6 w/AW334	16, 17	60.5
✓ AP242	Pahre, M. Ho, P.	Cfa Cfa	Embedded, optically-thick HII regions in W51 & G19.61-0.23	1.3, 3.6	24	6.0
✓ AP248	Prosser, C. White, S. Schmitt, J.	Cfa Maryland MPIfEP, Munich	X-ray selected stars in the alpha Persei cluster	3.6 w/AW334, Move/Op	5, 8	25.0
✓ AR281	Rupen, M. Bartel, N.	NRAO-SOC Cfa	Recent optical supernovae	6 w/AW334	11, 15	31.5
✓ AR287	Rigler, M. Lilly, S. Chambers, K.	Hawaii Toronto Hawaii	High redshift radio galaxies	3.6, 6, 20	30	10.0
✓ AS333	Sramek, R. Weiler, K. van der Hulst, J. Panagia, N.	NRAO-SOC NRL Groningen/Kapteyn STScI	Statistical properties of radio supernovae	2, 6 w/AW334, Move/Op	1, 9, 13, 27, 30	16.5
✓ AS450	Sahai, R. Claussen, M.	Chalmers, Onsala NRAO-SOC	Time variation of the enigmatic radio source in IRC+10216	1.3, 2, 3.6 w/AW334	2	5.3
✓ AU053	Umana, G. Trigilio, C. Hjellming, R. Catalano, S. Frasca, A.	IdR, Bologna IdR, Bologna NRAO-SOC Catania Catania	Radio survey of algol-type binary systems	6 w/AW334, Move/Op	3, 7	12.0
✓ AV193	van der Hucht, K. Williams, P. Spoelstra, T.	Utrecht Royal Obs NFRA	Wolf-Rayet object WR125	2, 6, 20	29	1.1
✓ AV200	Vasisht, G. Kulkarni, S. Thorsett, S. Rappaport, S.	Caltech Caltech Caltech MIT	Search for pulsars in massive binaries	20 w/AW334	10, 22, 23	20.0
✓ AW230	Wrobel, J. Unger, S.	NRAO-SOC RG0	International monitoring of the Seyfert NGC 5548	3.6	24	1.0
✓ AW330	Wills, B. Shastri, P.	Texas Calif., Berkeley	Core variability in lobe dominated quasars	3.6	29	10.0
✓ AW334	Witzel, A. Krichbaum, T. Wegner, R. Schalinski, C. Quirrenbach, A. Wagner, S. Zensus, A.	MPIfR, Bonn MPIfR, Bonn MPIfR, Bonn MPIfR, Bonn USNO Heidelberg NRAO-SOC	Radio/optical monitoring of intraday variable sources	3.6, 6, 20 5 Antenna Subarray w/Move/Op, Tests, Software, ...	1-23	481.4

VLA Utilization Report October 1992

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
BC012	Coles, W. Rickett, B. Harmon, J. Armstrong, J. Spangler, S. Staff	Calif., San Diego Calif., San Diego NAIC JPL Iowa NRAO	Measurement of anisotropy of coronal turbulence	6, 20 w/AW334	5, 6, 7, 8, 9, 10, 23	33.3
			Operations Maintenance Move/Operations Software Testing			63.1 45.2 90.3 29.2 38.1

The average downtime was 4.4%.

The array was scheduled for

424.0 hours (56.8 % of time) for astronomical programs

95.3 hours (12.8 % of time) for tests/calibration

49.8 hours (6.7 % of time) for maintenance

Total 569.1 hours (76.2 %) scheduled.

The array was in the D=>A configuration from October 1 to October 9

A configuration from October 9 to October 31

Total number of astronomical programs was 42.

The following independent proposals shared simultaneous observing time (523.9 hours total simultaneous observing):

Projects	Hours	Projects	Hours
ab414/aw334	1.7	ab456/aw334	2.0
ab655/aw334	4.5	ab655/aw344	4.5
ab655/aw334	4.5	ab665/aw334	1.0
ab665/aw334	3.0	ac340/aw334	8.1
ad296/aw334	5.0	ad296/aw334	6.8
af217/aw334	1.0	af217/move/op	1.0
af228/aw334	3.0	af228/move/op	3.0
af233/aw334	13.9	af233/aw334	3.0
af233/aw334	21.0	ag367/aw334	10.9
ag367/aw334	11.1	ag368/aw334	23.0
ah390/aw334	1.5	ah390/aw334	2.0
ah424/aw334	5.5	ah465/aw334	10.9
al267/aw334	30.1	al282/aw334	3.0
al282/aw334	6.0	an58/aw334	5.8
ap231/aw334	60.5	ap248/aw334	22.0
ar281/aw334	31.5	as333/aw334	12.5
as333/move/op	4.5	as450/aw334	5.3
au53/aw334	12.0	av200/aw334	20.0
aw334/move/op	9.5	bc12/aw334	32.3
bc12/move/op	1.6	move/op/af233	2.2
move/op/aw334	58.2	move/op/tests	1.3
softw/aw334	12.2	softw/move/op	4.0
tests/aw334	25.0		

VLA Utilization Report September 1992

Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AB414	Becker, R. White, R.	Calif., Davis STScI	Monitoring radio stars HD193793 and P Cygni	2, 6 w/GZ8	16	1.5
AB639	Bregman, J. Schulman, E. Brinks, E. Roberts, M.	Michigan Michigan NRAO-VLA NRAO-CV	High velocity clouds in external galaxies	20 line	22	2.6
AB645	Bastian, T. Dulk, G. Gary, D. Nitta, N. Kiplinger, A.	NRAO-VLA Colorado Caltech Lockheed Colorado	Solar flares: Microwave imaging w/high time resolution	1.3, 2, 3.6, 6	21, 23	13.8
AB651	Bosma, A. Knapp, G. Athanassoula, L. van Gorkom, J. Gunn, J.	Marseille Obs Princeton Marseille Obs Columbia Princeton	Disk/halo ratio and spiral structure	20 line	12, 21	11.0
AB654	Brown, R. Low, F. Vanden Bout, P.	NRAO-CV Arizona NRAO-CV	Warm faint IRAS sources	3.6 w/GZ8	16	8.0
AB669	Bookbinder, J. Guedel, M. Sear, S.	Cfa Colorado Cfa	M dwarfs	2, 3.6, 6, 20 line	1, 29	8.0
AC324	Carilli, C. Holdaway, M. Ho, P.	NRAO-VLA NRAO-VLA Harvard	Halo of NGC 253	3.6, 6 w/GB8	15	7.0
AD286	Deeg, H. Brinks, E. Duric, N. Klein, U. Skillman, E.	New Mexico NRAO-VLA New Mexico MPIfR, Bonn Minnesota	Radio spectra of blue compact dwarf galaxies	1.3, 2, 3.5, 90 w/GZ8, GW7	16, 24	7.0
AD303	Dwarakanath, K. van Gorkom, J.	NRAO-VLA Columbia	HI in Abel 154	20 line	28	7.4
ADHOC1	Junor, W.	NRAO-SOC	Adhoc		18	0.4
ADHOC2	Dhawan, V.	NRAO-SOC	Adhoc		28	0.5
AF217	Frail, D. Kulkarni, S. Thorsett, S.	NRAO-VLA Caltech Caltech	Young pulsar in G5.4-1.2	20 HTRP	7	0.8
AF221	Frail, D. Kulkarni, S. Vasisht, G.	NRAO-VLA Caltech Caltech	Search for pulsars in crab-like SNR	20	5	7.9
AG346	Garay, G. Rodriguez, L. Mardones, D.	Chile Mexico/UNAM Harvard	Warm molecular gas associated with compact HII regions	1.3 line w/GB8	3, 14	17.0
AG352	Gaume, R. Johnston, K. Wilson, T.	NRL NRL MPIfR, Bonn	W3(OH) region	2, 6	21	5.0
AH390	Hjellming, R. Gehrz, R. Taylor, A. Seagquist, E.	NRAO-VLA Minnesota Calgary Toronto	Monitoring radio novae.	3.6, 6, 20	9, 28	2.0
AH457	Heikkila, B. Webber, W. Burns, J. Walterbos, R. Duric, N.	New Mexico State New Mexico State New Mexico State New Mexico State New Mexico	Survey of edge-on spiral galaxies at 90 and 20 cm	20 w/GW7	25	10.0
AH465	Hankins, T. McKinnon, M. Moffett, D.	NMIMT NRAO-GB NMIMT	Development of pulsar polarimetry at 90cm	90 HTRP	7	5.1
AJ218	Johnston, K. Gaume, R. Wilson, T. Lemme, C.	NRL NRL MPIfR, Bonn MPIfR, Bonn	DR21/W75 region	1.3 line	17	6.0
AK304	Kundu, M. Woodgate, B. Maran, S. White, S. Lim, J.	Maryland NASA/GSFC NASA/GSFC Maryland Caltech	AU Mic: the radio/LyA relation (with HST)	2, 3.6	8	7.0
AL252	Ledlow, M. Owen, F.	New Mexico NRAO-VLA	Radio galaxies in rich clusters	20	18	4.0
AM345	Mirabel, I. Rodriguez, L. Cordier, B. Paul, J. Lebrun, F.	CNRS, France Mexico/UNAM CNRS, France CNRS, France CNRS, France	1E 1740.7-2942	6, 3.6 w/GW7	26	4.0

VLA Utilization Report September 1992

Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AM372	Myers, S. Lawrence, C.	Toronto Caltech	Survey of microwave background fields	1.3, 2, 3.6	23	12.5
AM385	Mirabel, I. Rodriguez, L.	CNRS, France Mexico/UNAM	Gamma ray source 1758-258	6	10	6.0
AP217	Puche, D. Westpfahl, D. Brinks, E.	NRAO-VLA NMIMT NRAO-VLA	Nearby dwarf galaxies	20 line	3	6.0
AP237	Phillips, J. Frail, D. Thorsett, S.	Caltech NRAO-VLA Caltech	Search non pulsed emission around millisecond pulsars	20 HTRP	7	6.5
AR251	Rupen, M. Lees, J. Knapp, J. van Gorkom, J.	NRAO-VLA Princeton Princeton Columbia	HI emission from elliptical galaxies	20 line w/GB8, GW7	15, 25, 26	30.4
AR262	Rowan-Robinson, M. Sopp, H. Lawrence, A. McMahon, R.	Queen Mary Queen Mary Queen Mary Cambridge	The Nature of Ultra-luminous Infrared Galaxies	20, 6, 2 w/GB16	29	1.1
AR263	Rudolph, A. de Geus, E. Brand, J. Wouterloot, J.	Maryland Maryland Arcetri Cologne	Radio continuum obs of outer galaxy massive star forming clouds	2	21	6.5
AR272	Rowan-Robinson, M. Sopp, H. Lawrence, A. McMahon, R.	Queen Mary Queen Mary Queen Mary Cambridge	Nature of ultra-luminous infrared galaxies	3.6, 20 w/GW7	24	8.0
AR274	Rupen, M. Lees, J. Knapp, G.	NRAO-VLA Princeton Princeton	Imaging the HI in the peculiar elliptical NGC 3928	20 line	4	4.5
AR288	Rucinski, S.	York U.	Is there thermal emission from YZ CMi	1.3, 2, 6 w/GB8	16	2.0
AS333	Sramek, R. Weiler, K. van der Hulst, J. Panagia, N.	NRAO-VLA NRL Groningen/Kapteyn STScI	Statistical properties of radio supernovae	2, 6	15	2.0
AS478	Subrahmanyan, R. Goss, W.	AT, Australia NRAO-VLA	Electron temperatures in HII regions	90	13, 20	12.3
AS479	Swain, M. Bridle, A. Baum, S.	NRAO-CV NRAO-CV Johns Hopkins	3C353	3.6	17	1.2
AT127	Thorsett, S. Taylor, J. Hankins, T. Stinebring, D.	Caltech Princeton NMIMT Oberlin	Timing fast pulsars	6, 20, 90 HTRP	12	11.0
AT134	Taylor, A. Dougherty, S.	Calgary Calgary	Monitoring of radio variable Be stars	3.6	13	3.0
AT135	Taylor, A. Kenny, H.	Calgary Calgary	Concurrent ROSAT/VLA obs of LSI 61'303	6	5, 9-11, 13, 19, 29	3.9
AT138	Tafalla, M. Bachiller, R. Martin-Pintado, J.	Calif., Berkeley Yebes Obs Yebes Obs	NH3 imaging of central sources of 2 conspicuous molecular jets	1.3 line	4	9.0
AT142	Torrelles, J. Rodriguez, L. Canto, J. Ho, P. Gomez, J.	IAA, Granada Mexico/UNAM Mexico/UNAM Harvard Cfa	Excitation of HH1 & HH2	1.3 line	7, 18	16.5
AU051	Uson, J. Bagri, D. Cornwell, T.	NRAO-VLA NRAO-VLA NRAO-VLA	Search for redshifted "21cm" emission from Zeldovich pancakes	90 line	2, 4	20.0
AV193	van der Hucht, K. Williams, P. Spoelstra, T.	Utrecht Utrecht Utrecht	Wolf-Rayet object WR125	2, 6, 20	9	1.6
AW312	Wilson, C. Skillman, E.	Maryland Minnesota	Atomic hydrogen clouds in the irregular galaxy NGC 6822	20 line	6	8.5
AW321	Wood, D. Adler, D. Goss, W.	NRAO-VLA NRAO-VLA NRAO-VLA	High resolution study of anomalous helium abundance variations in W3	3.6 line	23	8.0
AW325	Waller, W. Westpfahl, D. Puche, D. Wilcots, E.	NASA/GSFC NMIMT NRAO-VLA Washington	HI morphology & kinematics of NGC 1569	20 line	6	4.1
AW327	White, S. Lim, J. Pallavicini, R.	Maryland Caltech Arcetri	Search for polarization inversion on weak-line T Tauri stars	2, 6 w/GZ8	16	3.5

VLA Utilization Report September 1992

Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AW335	Wootten, A. Mangum, J.	NRAO-CV Texas	NGC 1333: dense gas accreting onto a binary protostar	1.3 line	7	12.0
AW336	Wootten, A. Sahai, R.	NRAO-CV Chalmers, Onsala	Circumstellar chemistry of cyanopolyynes	1.3, 2 line	5, 6	24.0
AY045	Yin, Q. Heeschen, D.	NRAO-CV NRAO-CV	Supernovae in MKN 297	3.6, 6, 20	4	3.0
AZ044	Zhao, J. Ekers, R. Goss, W. Lo, K. Narayan, R.	NRAO-VLA AT, Australia NRAO-VLA Illinois Arizona	Flux density variations in Sgr A.	3.6, 6, 20	8	2.0
AZ053	Zhao, J. Carilli, C. Anantharamaiah, K. van Gorkom, J.	NRAO-VLA NRAO-VLA Raman Institute Columbia	Seyfert NGC 1068	3.6, 6, 20	9	4.0
BF007	Feigelson, E. Phillips, R. Lonsdale, C.	Penn State Haystack Haystack	Active WTT star HD 283447	3.6, 18 Phased Array	10	10.0
BG007	Greenhill, L. Moran, J. Reid, M. Irwin, J.	Calif., Berkeley Cfa Cfa Queens	The compact core of NGC 3079.	3.6, 6, 18 Phased Array w/Move/Op	15, 21, 29	15.8
BV004	Venturi, T. Wehrle, A.	IdR, Bologna Caltech	Compact double 1518+047	18 Single Antenna VLBI w/Move/Op	29	3.5
GB008	Bloom, S. Marscher, A. Gear, W.	Boston Boston Royal Obs	VLBI-JCMT-ROSAT-GRO Observations of Strong Millimeter Sources	6, 18 Single Antenna w/AG346, AC324, Tests, AR251..	14, 15	23.6
GB016	de Bruyn, A. Schilizzi, R. Miley, G. Pedlar, A.	NFRA NFRA Leiden Manchester	Face-on Seyfert Mkn 348	6, 18 Phased Array MKIII VLBI	18, 29	22.8
GC009	Conway, J.	NRAO-VLA	Bright nuclei of powerful double-lobed radio galaxies	3.6 Phased Array MKIII VLBI	9	13.7
GC011	Cawthorne, T.	Cfa	Faraday rotation in two quasars	3.6, 6 Phased Array MKIII VLBI	13, 28	24.5
GG014	Gurvits, L. Schilizzi, R. Kellermann, K. Barthel, P. Pauliny-Toth, I. Kardachev, N. Popov, M.	NAIC NFRA NRAO-CV Groninger/Kapteyn MPIfR, Bonn Space Research Inst Lebedev	Quasars with $z > 3$	6 Phased Array MKIII VLBI w/GW7	27	25.0
GL009	Lestrade, J. Phillips, R. Jones, D. Preston, R.	JPL/Meudon Haystack JPL JPL	Astrometric observations of stars to tie in HIPPARCOS	3.6 Phased Array VLBI	11	16.0
GL011	Lonsdale, C. Lonsdale, C. Smith, H.	Haystack Caltech Calif., San Diego	Starburst galaxies	18 Phased Array MKIII VLBI	19	30.5
GP011	Porcas, R.	MPIfR, Bonn	3C 179	3.6 Phased Array VLBI	13	16.5
GW004	Wegner, R. Krichbaum, T. Standke, K. Schalinski, C. Britzen, S.	MPIfR, Bonn MPIfR, Bonn MPIfR, Bonn MPIfR, Bonn MPIfR, Bonn	VLBI imaging of the most violently intraday variable source 0804+49	3.6 Phased Array MKIII VLBI	17	11.6
GW007	Wilkinson, P. Henstock, D. Browne, I. Patnaik, A. Vermeulen, R. Pearson, T. Readhead, A. Cohen, M.	Manchester Manchester Manchester Manchester Caltech Caltech Caltech Caltech	Survey of flat spectrum sources	6 Single Antenna VLBI w/Baseline, Tests, Pointing,..	24	68.5
GZ008	Zensus, A. Unwin, S. Wehrle, A.	NRAO-VLA Caltech Caltech	Evolution of the parsec-scale structure of 3C345	3.6 Single Antenna VLBI	16	16.0
US003	Skinner, S. Linsky, J. Phillips, R.	Colorado Colorado Haystack	VLBI observations of the unusual PMS stars Z CMa and MWC297	3.6 Phased Array MKIII VLBI	19	2.1

VLA Utilization Report September 1992

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
	Staff	NRAO	Operations			59.7
			Maintenance			51.4
			Move/Operations		29	7.1
			Software			24.9
			Standard Field Observation		26	8.0
			Testing			25.3

The average downtime was 4.5%.

The array was scheduled for

570.8 hours (78.0 % of time) for astronomical programs

85.0 hours (11.6 % of time) for tests/calibration

76.2 hours (10.4 % of time) for maintenance

Total 732.0 hours (100 %) scheduled.

The array was in the A configuration from September 1 to September 28

DnA configuration from September 28 to September 30

Total number of astronomical programs was 69

The following independent proposals shared simultaneous observing time (111.7 hours total simultaneous observing):

Projects	Hours	Projects	Hours
ab414/gz8	1.5	ab654/gz8	7.5
ac324/gb8	7.0	ad286/gz8	1.6
ag346/gb8	4.1	ah457/gw7	0.6
ah457/gw7	9.4	am345/gw7	2.2
am345/gw7	1.8	ar251/gb8	10.0
ar251/gw7	5.8	ar251/gw7	10.0
ar288/gb8	0.6	aw327/gz8	3.5
baselines/gw7	3.7	gg14/gw7	0.3
move/op/bg7	2.0	move/op/bv4	3.5
standard fld	8.0	tests/gb8	2.0
tests/gw7	4.0	tests/gw7	2.0
ad286/gw7	3.0	ar272/gw7	8.0
pointing/gw7	5.0		

VLA Utilization Report August 1992

Progn	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
✓ AA133	Alexander, P. Blundell, K. Pooley, G. Riley, J. Liu, R.	Cambridge Cambridge Cambridge Cambridge Cambridge	ENLRs and asymmetries in radio sources	2, 3.6, 6	22, 25	6.0
✓ AA146	Appleton, P. Ghigo, F.	Iowa State NRAO-GB	Star formation in ring galaxies	3.6, 6, 20	25	8.0
AA147	Aschwanden, M. Bastian, T. Benz, A. White, S.	NASA/GSFC NRAO-VLA ETH, Zurich Maryland	3D-reconstruction and HTR imaging of solar bursts	6, 20, 90	1, 18	8.1
AB414	Becker, R. White, R.	Calif., Davis STScI	Monitoring radio stars HD193793 and P Cygni	2, 6	5	1.5
✓ AB635	Berkhuijsen, E. Beck, R. Hummel, E.	MPIfR, Bonn MPIfR, Bonn AT, Australia	Structure of the magnetic field in the central region of M31.	6	1	6.0
✓ AB639	Bregman, J. Schulman, E. Brinks, E. Roberts, M.	Michigan Michigan NRAO-VLA NRAO-CV	High velocity clouds in external galaxies	20 line	14, 15, 16	21.5
✓ AB642	Balser, D. Bania, T. Rood, R. Wilson, T.	Boston Boston Virginia MPIfR, Bonn	Measuring continuum structure of 3He+ sources	3.5	12	8.0
✓ AB643	Bang, M. Bode, M. Iverson, R. Davis, R.	Preston/Lancashire Preston/Lancashire Preston/Lancashire Manchester	Symbiotic novae: The outer geometry	2, 3.6, 6	14	4.0
✓ AB645	Bastian, T. Dulk, G. Gary, D. Nitta, N. Kiplinger, A.	NRAO-VLA Colorado Caltech Lockheed Colorado	Solar flares: Microwave imaging w/high time resolution	1.3, 2, 3.6, 6	14, 20	15.0
✓ AB650	Borkowski, K. White, S. Harrington, J.	Maryland Maryland Maryland	Hydrogen deficient planetary nebulae	6, 20	24	2.5
✓ AB651	Bosma, A. Knapp, G. Athanasoula, L. van Gorkom, J. Gunn, J.	Marseille Obs Princeton Marseille Obs Columbia Princeton	Disk/halo ratio and spiral structure	20 line	1	16.0
✓ AC323	Curiel, S. Rodriguez, L.	CfA Mexico/UNAM	Emission associated with HH 12	2	29	2.5
AC324	Carilli, C. Holdaway, M. Ho, P.	NRAO-VLA NRAO-VLA CfA	Halo of NGC 253	3.6, 6	7	6.5
✓ AC325	Claussen, M. Johnston, K.	NRL NRL	AGB stars	1.3 line	30	8.0
✓ AD289	Dubner, G. Giacani, E. Winkler, P. Goss, W.	IAFE, Argentina IAR, Argentina Middlebury NRAO-VLA	Imaging of the SNR 3C400.2	20	14, 17	9.5
AF211	Fiedler, R. Dennison, B. Johnston, K.	NRL VPI & SU NRL	Extreme scattering events/target of opportunity	1.3, 2, 3.8, 6, 20	6, 13, 21, 30	8.5
AF217	Frail, D. Kulkarni, S. Thorsett, S.	NRAO-VLA Caltech Caltech	Young pulsar in G5.4-1.2	20 HTRP	16	1.0
✓ AF239	Frail, D. Whiteoak, J. Goss, M.	NRAO-VLA Sydney NRAO-VLA	Search for extended emission near two young pulsars	20, 90 HTRP	10	3.0
✓ AG339	Giovanardi, C. Rodriguez, L. Lizano, S. Canto, J.	Arcetri Mexico/UNAM Mexico/UNAM Mexico/UNAM	High-velocity HI in L1551	20 line	11, 13	16.0
✓ AG344	Giovanini, G. Feretti, L. Boehringer, H. Schwartz, R.	IdR, Bologna IdR, Bologna MPE, Garching MPIfR, Bonn	Cluster radio halo candidates	20, 90	16, 17	5.6
✓ AG350	Ge, J. Owen, F.	Brandeis NRAO-VLA	Super-high dynamic-range polarimetry of NGC 1275	6	6	10.0
✓ AG353	Goss, W. Uson, J.	NRAO-VLA NRAO-VLA	Pilot obs of 3He	3.6 line	24	8.0

VLA Utilization Report August 1992

Progrm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AH390	Hjellming, R. Gehrz, R. Taylor, A. Sequist, E.	NRAO-VLA Minnesota Calgary Toronto	Monitoring radio novae.	3.8, 6, 20	5, 13, 14, 17, 23, 24, 29	7.7
AH456	Henning, P. Sancisi, R.	NFRA Groningen/Kapteyn	HI near the elliptical galaxy NGC 4472	20 line	10	4.0
AH461	Hibbard, J. van Gorkom, J.	Columbia Columbia	The fate of gas in interacting/merging galaxies	20 line	26	3.5
AH466	Herbig, T. Readhead, A.	Caltech Caltech	Radio sources in Sunyaev-Zeldovich clusters	6, 20	22	9.0
AH467	Hoffman, L. Salpeter, E.	Lafayette Cornell	HI mapping of NGC 4532/DDO 137 galaxy pair & gas cloud	20 line	29	9.0
AJ219	Joncas, G. Green, D.	Laval Cambridge	Investigation of promising sources from the DRAO gal. plane survey	3.6, 6	6	2.0
AJ220	Jones, M. Saunders, R.	Cambridge Cambridge	Candidate clusters for Sunyaev-Zeldovich effect	2	16	12.0
AK294	Katz-Stone, D. Rudnick, L. Anderson, M. Leahy, J. Lonsdale, C. O'Donoghue, A.	Minnesota Minnesota Minnesota Manchester Haystack St. Lawrence	Evolution of the relativistic electrons in extragalactic radio sources	3.6, 6	6, 11, 18	16.2
AL252	Ledlow, M. Owen, F.	New Mexico NRAO-VLA	Radio galaxies in rich clusters	20	10	1.5
AL262	Lehnert, M. Baum, S. O'Dea, C. Annus, L. Caganoff, S.	Johns Hopkins STScI STScI Johns Hopkins Johns Hopkins	Galactic superwinds: 3 starburst galaxies	6	21	5.0
AL266	Liang, H. Subrahmanyan, R. Ekers, R. Silk, J.	Mt. Stromlo AT, Australia AT, Australia Calif., Berkeley	Sunyaev-Zeldovich effect in distant clusters	3.6	18	6.0
AM359	Muhleman, D. Grossman, A. Slade, M. Butler, B.	Caltech Maryland JPL Caltech	Radar measurements of Titan reflectivities and rotation rate	3.6 line	9, 10, 11	19.0
AM364	Morganti, R. Parma, P. Fanti, R. de Ruiter, H. Capetti, A.	IdR, Bologna IdR, Bologna IdR, Bologna IdR, Bologna IdF, Torino	Polarization study of B2 radio galaxies	6	2	20.0
AM367	Mehring, D. Palmer, P. Goss, W. Yusef-Zadeh, F.	Chicago Chicago NRAO-VLA Northwestern	W51 star forming region	3.6, 6, 20 line	3	12.1
AM370	Mangum, J. Wootten, A.	Texas NRAO-CV	Dense core structure in DR21(OH)	2 line	15	8.0
AM371	Mikami, H. Umamoto, T. Yamamoto, S. Saito, S.	Nagoya Nobeyama Obs Nagoya IMS, Japan	Distribution of high-temp. gas in the L1157 dark cloud	1.3 line	8	8.0
AO109	Olling, R. van Gorkom, J.	Columbia Columbia	Mass distribution of NGC 4244	20 line	21	8.0
AO110	Onello, J. Phillips, J. Terzian, Y. Goss, W.	SUNY Caltech Cornell NRAO-VLA	Radio recomb. lines of partially ionized gas in W48	20 line	7	10.0
AP228	Puche, D. Westpfahl, D. Brinks, E. Deeg, H.	NRAO-VLA NMIMT NRAO-VLA New Mexico	The energy balance in two nearby dwarf galaxies	2, 3.6, 6, 20	27	6.0
AP238	Palmer, P. Gonatas, D.	Chicago Pennsylvania	Recomb. line & continuum studies of Mon R2 & M17 SW	3.6, 6, 20 line	30	6.0
AR266	Richter, O. Saha, A. Hoessel, J.	STScI STScI Wisconsin	UGC-A86 and UGC-A92: Local group galaxies or companions of IC342	20 line	16	3.4
AR271	Rood, R. Bania, T. Balser, D. Wilson, T.	Virginia Boston Boston MPIfR, Bonn	Mapping of the planetary nebula NGC 3242 in 3He+	3.5 line	15	10.0

VLA Utilization Report August 1992

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AS333	Sramek, R. Weiler, K. van Dyk, S. Panagia, N.	NRAO-VLA NRL NRL STScI	Statistical properties of radio supernovae	2, 6	25	2.0
AS437	Seaquist, E. Odegard, N.	Toronto GSC/GSFC	Synchrotron emission from galactic superwinds	6	28	9.0
AS475	Simpson, C. Gottesman, S.	Florida Florida	Dwarf galaxies out to 50 Mpc	20 line	2	8.0
AS479	Swain, M. Bridle, A. Baum, S.	Rochester NRAO-CV STScI	3C353	3.6	5	1.0
AT135	Taylor, A. Kenny, H.	Calgary Calgary	Concurrent ROSAT/VLA obs of LSI 61'303	6	10, 13, 15, 17, 20, 21, 23, 26, 28, 29, 31	10.3
AT139	Taylor, C. Brinks, E. Skillman, E.	Minnesota NRAO-VLA Minnesota	BCDs: search for neutral hydrogen companions	20 line	31	5.5
AU051	Uson, J. Bagri, D. Cornwell, T.	NRAO-VLA NRAO-VLA NRAO-VLA	Search for redshifted "21cm" emission from Zeldovich pancakes	90 line w/Move/Op,	1, 18-22, 24, 26-30 BB2	112.1
AV191	Viallefond, F. Lequeux, J.	Meudon Meudon	Small scale structure in the extinction	3.6	9	5.0
AV192	van Langevelde, H. van Dishoeck, E. Blake, G.	Leiden Leiden Caltech	Molecules in the T Tauri circumstellar disk	1.3, 6 line	8	5.0
AV193	van der Hucht, K. Williams, P. Spoelstra, T.	Utrecht Utrecht Utrecht	Wolf-Rayet object WR125	2, 6, 20	26	1.0
AW326	Westpfahl, D. Adler, D.	NMIMT NRAO-VLA	Interarm HI in M81	20 line	23	9.5
AW331	Willson, R. Lang, K. Kile, J.	Tufts Tufts Tufts	Solar bursts during Max 91	2, 3.6, 6	3	10.0
AW337	Wootten, A. Benson, P.	NRAO-CV Wellesley	Water maser location in the young low luminosity star 16234-2417	1.3 line	15, 27	3.5
AY043	Yusef-Zadeh, F.	Northwestern	High-resolution mosaic of the Sgr A complex	3.6	23	8.0
AY045	Yin, Q. Heeschen, D.	NRAO-CV NRAO-CV	Supernovae in MKN 297	3.6, 6, 20	13	4.0
AY048	Yun, M. Ho, P. Lo, K.	Harvard Cfa Illinois	Large HI tidal remnants around M81	20 line	7, 8, 9	27.0
BB002	Brown, R. Benson, J.	NRAO-CV NRAO-VLA	The apparent structure of Sgr A.	6 Single Antenna VLBI w/Test, AU51	24	7.6
BG006	Greenhill, L. Moran, J. Phillips, R. Townes, C.	Calif., Berkeley Cfa Haystack Calif., Berkeley	Water masers from SiO stars	1.3 line	16, 25	2.1
BZ002	Zheng, X. Moran, J. Reid, M. Haschick, A.	Nanjing Cfa Cfa Haystack	Megamaser galaxy IRAS 17208-0014	20 Phased Array VLBI	31	8.7
	Staff	NRAO	Maintenance Move/Operations Operations Software Students Testing		15	51.3 5.0 47.3 26.2 1.5 21.0

The average downtime was 5.5%.

The array was scheduled for
596.5 hours (80.0 % of time) for astronomical programs
72.1 hours (9.7 % of time) for tests/calibration
77.5 hours (10.4 % of time) for maintenance
Total 746.1 hours (100 %) scheduled.

The array was in the D configuration from August 1 to August 31

Total number of astronomical programs was 63

The following independent proposals shared simultaneous observing time (7.6 hours total simultaneous observing):

Projects	Hours	Projects	Hours
au51/bb2	5.1	tests/bb2	2.5

VLA Utilization Report July 1992

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
✓ AA145	Anglada, G. Estalella, R. Torrelles, J. Rodriguez, L.	Barcelona Barcelona IAA, Granada Mexico/UNAM	Ammonia toward double radio source in L723	1.3 line	23	10.1
✓ AA147	Aschwanden, M. Bastian, T. Benz, A. White, S.	NASA/GSFC NRAO-VLA ETH, Zurich Maryland	3D-reconstruction and HTR imaging of solar bursts	6, 20, 90	19, 20, 21, 30	16.0
✓ AB414	Becker, R. White, R.	Calif., Davis STScI	Monitoring radio stars HD193793 and P Cygni	2, 6	14	1.5
✓ AB456	Burke, B. Hewitt, J. Roberts, D.	MIT MIT Brandeis	Monitoring 0957+561 A,B	6	28	2.0
✓ AB635	Berkhuijsen, E. Beck, R. Hummel, E.	MPIfR, Bonn MPIfR, Bonn Royal Obs	Structure of the magnetic field in the central region of M31.	6 w/Move/Op	26, 30, 31	19.0
✓ AB638	Buckley, D. Schneider, S.	Stroudsburg Massachusetts	Planetary nebulae with faint optical halos	3.8	28	10.5
✓ AB644	Bastian, T. Vilmer, N. Kerdran, A. Klein, K.	NRAO-VLA Paris Obs Paris Obs Paris Obs	Solar radio microbursts & relation to hard x-ray microflares	6, 20, 90	3, 12	9.5
✓ AB646	Beck, R. Ehle, M. Dettmar, R.	MPIfR, Bonn MPIfR, Bonn Bonn U.	Interstellar medium in NGC 55	20	3, 4, 5	11.0
✓ AB647	Beck, R. Berkhuijsen, E. Hummel, E.	MPIfR, Bonn MPIfR, Bonn Royal Obs	Structure of magnetic field in M31	20	24, 26	24.0
✓ AB652	Briggs, F. Turnshek, D. Hazard, C.	Pittsburgh Pittsburgh Pittsburgh	Search for extended neutral H in galaxies at z=3.4	90 line	1	6.9
✓ AC326	Condon, J. Broderick, J.	NRAO-CV VPI & SU	Radio ID's of Extragalactic IRAS sources	20	12, 14	14.5
✓ AD275	Dwarakanath, K.	NRAO-VLA	GEETEE sources	20, 90	5	5.0
✓ AD291	de Pater, I. Palmer, P. Snyder, L.	Calif., Berkeley Chicago Illinois	H2CO emission from comet Shoemaker-Levy	6 line	25	9.0
ADHOC	Langston, G.	NRAO-CV	Adhoc		9	2.0
✓ AF211	Fiedler, R. Dennison, B. Johnston, K.	NRL VPI & SU NRL	Extreme scattering events/target of opportunity	1.3, 2, 3.8, 6, 20	3, 7, 9, 11, 15, 16, 18, 22, 26, 27	22.3
✓ AF217	Frail, D. Kulkarni, S. Thorsett, S.	NRAO-VLA Caltech Caltech	Young pulsar in G5.4-1.2	20 HTRP	25	1.0
✓ AF229	Freudling, W. Prieto, A.	ESO ESO	HI in biconical Seyfert galaxy NGC 5252	20 line	27	8.0
✓ AG343	Giovannini, G. Feretti, L. Boehringer, H. Schwarz, R.	IdR, Bologna IdR, Bologna MPIfEP, Garching MPIfEP, Garching	Halo sources in A2255 and A2319	20	26	3.5
AG353	Goss, W. M. Uson, J.	NRAO-VLA NRAO-VLA	Pilot observations of 3He	3.5	17	2.0
✓ AH390	Hjellming, R. Gehrz, R. Taylor, A. Seagquist, E.	NRAO-VLA Minnesota Calgary Toronto	Monitoring radio novae.	3.8, 6, 20	2, 9	2.0
✓ AH461	Hibbard, J. van Gorkom, J.	Columbia Columbia	The fate of gas in interacting/merging galaxies	20 line	16, 19	10.0
✓ AH463	Habbal, S. Esser, R. Coles, W. Groll, R. Gonzalez, R. Lovhaug, U. Ronan, R.	CfA CfA Calif., San Diego Calif., San Diego NRAO-CV EISCAT, Norway Hawaii	Study of the inner solar wind region	3.8, 6, 20	23, 24	14.8
✓ AJ217	Johnston, H. Deich, W. Kulkarni, S. Middleditch, J.	Caltech Caltech Caltech Los Alamos	Deep pulse searches towards globular clusters	6, 20 w/Move/Op	30	8.0
✓ AK301	Koo, B. Heiles, C. Seward, F.	Seoul National Calif., Berkeley CfA	The supernova remnant in the W51 complex	20 line	21	9.1

VLA Utilization Report July 1992

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AK303	Kundu, M. White, S. Gopalswamy, N.	Maryland Maryland Maryland	Multiple structures in the onset of solar flares	2, 3.5, 6	1, 6	7.6
AL150	Lestrade, J. Preston, R.	JPL JPL	Statistical properties of RSCVn stars	6	28	1.0
AL258	Lo, K. Sargent, W. Engargiola, G.	Illinois Caltech Illinois	HI mapping of faint dwarf irregular galaxies	20 line	15, 19	6.5
AM353	Moffett, D. Goss, W. Reynolds, S.	New Mexico Tech NRAO-VLA North Carolina St.	SN 1006 - expansion	20	3	4.0
AM359	Muhleman, D. Grossman, A. Slade, M. Butler, B.	Caltech Maryland JPL Caltech	Radar measurements of Titan reflectivities and rotation rate	3.5 line	11, 20	12.1
AM365	McMahon, P. Richter, O. van Gorkom, J. Ferguson, H.	Columbia STScI Columbia Cambridge	HI survey of the Hydra I cluster	20 line	2, 3, 4, 5	24.0
AM368	Mehring, D. Palmer, P. Goss, W. Yusef-Zadeh, F.	Chicago/NRAO-VLA Chicago NRAO-VLA Northwestern	Sgr D star forming region	6, 20 line	1, 2	16.0
AM369	Mehring, D. Palmer, P. Yusef-Zadeh, F. Goss, W.	Chicago/NRAO-VLA Chicago Northwestern NRAO-VLA	Reproposal for search for H ₂ O masers in Sgr B1 and G0.6-0.0	1.3 line	1	3.6
AP223	Plante, R. Lo, K. Crutcher, R. Killeen, N.	Illinois Illinois Illinois AT, Australia	HI Zeeman measurement against the galactic center's arc & arch sources	20 line	4, 5	18.0
AP225	Phookun, B. Mundy, L.	Maryland Maryland	NGC 5713, NGC 3162 and NGC 3675: HI obs of one-armed spiral galaxies	20 line	31	4.0
AP229	Porter, A. Green, R. Osmer, P. Biretta, J.	KPNO-NOAO KPNO-NOAO KPNO-NOAO NRAO-VLA	X-band survey of the highest redshift quasars	3.8	11, 14, 15	5.0
AR270	Rodriguez, L. Canto, J. Anglada, G. Estalella, R. Torrelles, J.	Mexico/UNAM Mexico/UNAM Barcelona Barcelona IAA, Granada	Exciting source of selected new bipolar outflows	2, 3.8	16	11.0
AR273	Rucinski, S.	York U.	High-latitude T Tauri stars	3.6, 6, 20	9, 10	10.0
AS465	Sarazin, C. O'Dea, C. Baum, S.	Virginia STScI STScI	Radio imaging of the complex X-ray source 2A 0335+096	6, 20	14	7.0
AS480	Szomoru, A. van Gorkom, J. Gregg, M.	Groningen/Kapteyn Columbia Mt. Stromlo	HI survey of the Bootes void	20 line	13, 17, 20	30.0
AT127	Thorsett, S. Taylor, J. Hankins, T. Stinebring, D.	Caltech Princeton NMIMT/NRAO-VLA Oberlin	Timing fast pulsars	6, 20, 90 HTRP	14	11.0
AT134	Taylor, A. Dougherty, S.	Calgary Calgary	Monitoring of radio variable Be stars	3.8	6	4.5
AT139	Taylor, C. Brinks, E. Skillman, E.	Minnesota/NRAO-VLA NRAO-VLA Minnesota	BCDs: search for neutral hydrogen companions	20 line	11, 12, 24	25.7
AT143	te Lintel Hekkert, P. Habing, H. Blommaert, J. Dejonghe, H. Rich, M. Winnberg, A.	Mt. Stromlo Leiden Leiden Gent Obs Columbia Chalmers/Onsala	OH/IR stars: 1612 MHz survey of galactic plane	18 line	3, 8	10.0
AU051	Uson, J. Bagri, D. Cornwell, T.	NRAO-VLA NRAO-VLA NRAO-VLA	Search for redshifted "21cm" emission from Zeldovich pancakes	90 line	12, 17, 18, 28, 31	29.5
AU052	Uson, J. Bagri, D. Cornwell, T.	NRAO-VLA NRAO-VLA NRAO-VLA	Confirmation of a Zeldovich pancake	90 line	18, 19, 24	25.0
AV193	van der Hucht, K. Williams, P. Spoelstra, T.	Utrecht Utrecht Utrecht	Wolf-Rayet object WR125	2, 6, 20	25	1.0

VLA Utilization Report July 1992

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AV196	Verdes-Montenegro, L Ho, P.	IAA, Granada CfA	HH 25 & HH 26: their associated double peaked NH3 structure	1.3 line	18	9.5
AV197	Verdes-Montenegro, L Ho, P.	IAA, Granada CfA	Dynamics of the core associated w/exciting source of Cepheus A	1.3 line	22	10.0
AW298	Wallin, J. Higdon, J. Appleton, P.	NRL Texas Iowa State	Ring galaxy AM1354-250 HI	20 line	1	3.5
AW328	White, S.	Maryland	Densities in the solar corona	1.3, 2	17	6.0
AW330	Wills, B. Shastri, P.	Texas Calif., Berkeley	Core variability in lobe dominated quasars	3.8	26	10.0
AW331	Willson, R. Lang, K. Kile, J.	Tufts Tufts Tufts	Solar bursts during Max 91	2, 3.8, 6	28, 31	10.0
AW333	Wilson, T. Gaume, R. Johnston, K.	MPIfR, Bonn NRL NRL	H2 density and kinetic temperature of clouds toward Cas A	1.3 line	21	8.0
AZ044	Zhao, J. Ekers, R. Goss, W. Lo, K. Narayan, R.	NRAO-VLA AT, Australia NRAO-VLA Illinois Arizona	Flux density variations in Sgr A.	1.3, 2	25	2.0
BR001	Reid, M. Readhead, A. Staff	CfA Caltech NRAO	Trigonometric parallax of the galactic center: choosing reference sources	3.8 Phased Array MkIII VLBI	6	6.3
			Maintenance			44.8
			Move/Operations			31.8
			Operations			33.0
			Software			30.3
			Summer Student Observation			5.0
			General Test			51.7

The average downtime was 4.8%.

The array was scheduled for
 553.4 hours (74.2 % of time) for astronomical programs
 117.5 hours (15.7 % of time) for tests/calibration
 75.1 hours (10.1 % of time) for maintenance
 Total 746.1 hours (100 %) scheduled.

The array was in the DnC configuration from July 1 to July 7
 D configuration from July 8 to July 31

Total number of astronomical programs was 55

The following independent proposals shared simultaneous observing time (8.0 hours total simultaneous observing):

Projects	Hours	Projects	Hours
ab635/move/op	6.0	aj217/move/op	2.0

VLA Utilization Report June 1992

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AB414	Becker, R. White, R.	Calif., Davis STScI	Monitoring radio stars HD193793 and P Cygni	2, 6 w/GB8	14	1.5
AB651	Bosma, A. Knapp, G. Athanasoula, L. van Gorkom, J. Gunn, J.	Marseille Obs Princeton Marseille Obs Columbia Princeton	Disk/halo ratio and spiral structure	20 line	25	7.0
AB652	Briggs, F. Turnshek, D. Hazard, C.	Pittsburgh Pittsburgh Pittsburgh	Search for extended neutral H in galaxies at z=3.4	90 line	28, 29	14.0
AB653	Brown, A. Skinner, S. Walter, F.	Colorado Colorado SUNY	Naked T Tauri stars in Sco OB2 assoc.	3.8	1	4.5
AC319	Crutcher, R. Goodman, A. Heiles, C. Troland, T.	Illinois Calif., Berkeley Calif., Berkeley Kentucky	Linear polarization of the 18 cm OH lines in W22	20 line w/GV9, GZ8,	12, 14, 15 GB8, GW6	12.0
AC320	Cote, S. Carignan, C. Freeman, K.	Mt. Stromlo Montreal Mt. Stromlo	HI kinematics of dwarf irregulars in Sculptor and Centaurus groups	20 line w/GB8	15, 16, 22	18.0
AD286	Deeg, H. Brinks, E. Duric, N. Klein, U. Skillman, E.	NRAO-VLA/UNM NRAO-VLA New Mexico MPIfr, Bonn Minnesota	Radio spectra of blue compact dwarf galaxies	1.3, 2, 3.8, 90 w/GB8	15	4.0
AD291	de Pater, I. Palmer, P. Snyder, L.	Calif., Berkeley Chicago Illinois	OH & H2CO emission from comet Shoemaker-Levy	6 line	22, 23	18.5
AD292	Dwarakanath, K. van Gorkom, J. Raychaudhury, S. Guhathakurtha, P.	NRAO-VLA Columbia Cfa Princeton	HI imaging of clusters of galaxies	20 line w/GW6, GB8	9, 14, 23	25.5
ADHOC1	Becker, R.	Calif., Davis	Adhoc		13	1.5
ADHOC2	Lestrade, J.	Manchester	Adhoc		19	5.0
AF211	Fiedler, R. Dennison, B. Johnston, K. Hjellming, R.	NRL VPI&SU NRL NRAO-VLA	Extreme scattering events/target of opportunity	all	1, 4, 5, 7, 10, 13, 16, 17, 20, 22, 24-27, 29, 30	40.1
AF217	Frail, D. Kulkarni, S. Thorsett, S.	NRAO-VLA Caltech Caltech	Young pulsar in G5.4-1.2	20 HTRP	23	1.0
AF219	Freeman, K. Carignan, C.	Mt. Stromlo Montreal	HI kinematics of NGC24 & NGC45	20 line w/GZ8, GB8	13, 14	12.0
AF220	Frail, D. Kassim, N. Weiler, K. Dwarakanath, K.	NRAO-VLA NRL NRL NRAO-VLA	Further studies of 2 PSR-SNR associations	20, 90 line w/GW5, GW6	6, 9	8.0
AF228	Foster, R. Tavani, M.	NRL Princeton	Search for pulsed emission from LSI +61 303	20 HTRP	27	4.0
AG340	Goss, W. Wood, D.	NRAO-VLA NRAO-VLA	Sickle (G0.18-0.04) and Pistol (G0.15-0.05)	3.8 line	24	8.0
AK285	Koo, B. Yun, M. Ho, P. Kumar, P. Heiles, C.	Cfa Harvard Harvard NCAR Calif., Berkeley	Structure of HII region G5.48-0.24	6, 20	22	2.0
AK302	Krishna, G.	TIFR	Snapshots of 34 ultra-steep spectrum radio sources from Ooty sample	6	22	6.0
AL150	Lestrade, J. Preston, R.	JPL JPL	Statistical properties of RSCVn stars	6	16, 20	2.3
AM365	McMahon, P. Richter, O. van Gorkom, J. Ferguson, H.	Columbia STScI Columbia Cambridge	HI survey of the Hydra I cluster	20 line	29	6.1
AM369	Mehring, D. Palmer, P. Yusef-Zadeh, F. Goss, W.	Chicago/NRAO-VLA Chicago Northwestern NRAO-VLA	Search for H2O masers in Sgr B1 and G0.6-0.0	1.3 line	30	3.0

VLA Utilization Report June 1992

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AP214	Pedlar, A. Longley, D. Kukula, M. Baum, S. O'Dea, C.	Manchester Manchester Manchester STScI STScI	NGC4151	2	16	1.3
AR251	Rupen, M. Lees, J. Knapp, J. van Gorkom, J.	NRAO-VLA Princeton Princeton Columbia	HI emission from elliptical galaxies	20 line w/GV9, GZ8	12, 13, 26	17.6
AR268	Rodriguez, L. Curiel, S.	Mexico/UNAM Cfa	Radio monitoring of the outburst in SVS13	3.8, 6 w/GV10	5	3.0
AR269	Ratner, M. Lebach, D. Bartel, N. Shapiro, I.	Cfa Cfa Cfa Cfa	Reference-star search: Extension to binary & multiple stars	3.8 w/GZ8, GV10	5	8.0
AS333	Sramek, R. Weiler, K. van Dyk, S. Panagia, N.	NRAO-VLA NRL NRL STScI	Statistical properties of radio supernovae	2, 6	16	2.1
AS459	Strom, K. Rodriguez, L.	Massachusetts Mexico/UNAM	Ammonia associated with the dense stellar cluster IRAS 05338-0624	1.3 line	28	6.5
AS471	Sukumar, S. Allen, R. Tilanus, R.	DRAO STScI Caltech	Radio polarization of face-on spirals NGC 5236 and NGC 4321	6, 20	27, 28	14.0
AT140	Taylor, G. Schulman, E. Morris, M. Catarzi, M. Cesaroni, R.	Arcetri Michigan Calif., Los Angeles Arcetri Arcetri	Search for H2O masers near galactic center	1.3 line	29	8.5
AT143	te Lintel Hekkert, P. Habing, H. Blommaert, J. Dejonghe, H. Rich, M. Winnberg, A.	Mt. Stromlo Leiden Leiden RUG Obs Columbia Chalmers, Onsala	OH/IR stars: 1612 MHz survey of galactic plane	20 line	2	8.1
AV193	van der Hucht, K. Williams, P. Spoelstra, T.	Utrecht Royal Obs NFRA	Wolf-Rayet object WR125	2, 6, 20 w/GB8	15	1.5
AV195	van Gorkom, J. van der Hulst, J. Kasow, S.	Columbia Groningen/Kapteyn Hunter College	HI imaging of Centaurus A	20 line w/GV10, GW5, GW6, GZ8	5, 6, 9, 12	16.1
AW298	Wallin, J. Higdon, J. Appleton, P.	NRL Texas Iowa State	Ring galaxy AM1354-250 HI	20 line	25	4.0
AW323	Wood, D.	NRAO-VLA	An ammonia line study of G5.89-0.39	1.3 line	25, 26	16.0
GA006	Alberdi, A. Marcaide, J. Elosegui, P. Gomez, J. Marscher, A. Zhang, Y. Shaffer, D.	IAA, Granada Valencia Cfa IAA, Granada Boston Boston Interferometrics	4C 39.25	1.3 Phased Array VLBI	11	13.6
GB008	Bloom, S. Marscher, A. Gear, W.	Boston Boston Royal Obs	Joint observations of strong millimeter sources	1.3 3 Antenna VLBI w/AB414, AC319, AC320, AD286, ...	14, 15	23.2
GE003	Elosegui, P. Marcaide, J. Guirado, J. Alberdi, A. Shapiro, I. Ratner, M.	Cfa Valencia IAA, Granada IAA, Granada Cfa Cfa	3C 345 phase-referenced to NRAO 512	1.3 Phased Array VLBI	15	6.6
GG010	Garrett, M. Porcas, R. Wilkinson, P. Walsh, D.	Manchester NRAO-VLA Manchester Manchester	Gravitational lens 0957+561: search for third image	18 Phased Array VLBI	19, 20	21.4
GG011	Giovannini, G. Parma, P. Venturi, T. Marcaide, J. Wehrle, A.	IdR, Bologna IdR, Bologna IdR, Bologna Valencia IPAC, Pasadena	Low power FR-1 galaxies 3C 272.1 and 0206+35	6 Phased Array VLBI	3	24.1
GH002	Hewitt, J. Ellithorpe, J. Turner, E.	MIT MIT Princeton	Probable lens MG0414+0534	6 Phased Array VLBI	7	10.9

VLA Utilization Report June 1992

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
GJ003	Junor, W. Biretta, J. Reid, M.	NRAO-VLA NRAO-VLA Cfa	Evolution of M87	18 Phased Array VLBI	18	12.2
GJ004	Junor, W. Biretta, J. Muxlow, T.	NRAO-VLA NRAO-VLA Manchester	Nucleus of M87	1.3 Phased Array VLBI	13	10.8
GK005	Krichbaum, T. Alef, W. Standke, K. Schalinski, C. Zensus, A.	MPIfR, Bonn MPIfR, Bonn MPIfR, Bonn NRAO-VLA	Cygnus A	1.3 Phased Array VLBI	10	14.9
GL004	Lestrade, J. Phillips, R. Gabuzda, D. Preston, R.	Meudon Haystack Calgary JPL	Astrometry of RS CVn stars	6 Phased Array VLBI	7	14.2
GP009	Patnaik, A. Browne, I. Porcas, R.	Manchester Manchester NRAO-VLA	3 new gravitational lens systems	18 Phased Array VLBI	19, 21	30.8
GV009	Vermeulen, R. Readhead, A. Conway, J. Backer, D.	Caltech Caltech NRAO-VLA Calif., Berkeley	Core and inner jet of 3C84	1.3 3 Antenna VLBI w/AC319,AR251,Tests	12	14.1
GV010	Vermeulen, R. Xu, W. Cohen, M. Readhead, A. Pearson, T. Wilkinson, P. Polatidis, A.	Caltech Caltech Caltech Caltech Manchester Manchester	Snapshot survey of superluminal motion	6 Single Antenna VLBI w/AR269,AR268,Tests,AV195,...	5	16.3
GW005	Wilkinson, P. Patnaik, A. Browne, I. Henstock, D. Readhead, A. Vermeulen, R. Pearson, T. Cohen, M.	Manchester Manchester Manchester Manchester Caltech Caltech Caltech	Snapshot survey of flat-spectrum sources	6 Single Antenna VLBI w/AF211,Tests,AV195,AF220	6	25.9
GW006	Wehrle, A. Unwin, S. Abraham, Z. Carrara, E. Zensus, A. Urry, C. Madejski, G.	IPAC, Pasadena Caltech Sao Paulo Sao Paulo NRAO-VLA STScI NASA/GSFC	3C 279	1.3, 6 Single Antenna VLBI w/AD292,AC319	9, 14	26.1
GZ008	Zensus, A. Unwin, S. Wehrle, A.	NRAO-VLA Caltech IPAC, Pasadena	3C 345	1.3, 6 Single Antenna VLBI w/AC319,AF211,AF219,AR251,...	4, 12	27.9
UAH009	Chen, G.	MIT	Ring source 1131+049	18 Phased Array VLBI	16	4.6
UAH010	Bartel, N.	Cfa	Reference sources near SgrA	1.3 Phased Array VLBI	11	2.5
UAH011	Lebach, D.	Cfa	Reference sources near Lambda And	6 Phased Array VLBI	9	6.5
UB002	Bartel, N. Chandler, J. Ratner, M. Shapiro, I.	Cfa Cfa Cfa Cfa	Gravitational redshift test via pulsar VLBI astrometry	18 Phased Array VLBI	16	8.9
UB004	Bartel, N. Wolszczan, A.	Cfa Princeton	PSR 1257+129 astrometry	18 Phased Array VLBI	19, 20	11.5
UG004	Gwinn, C. Diamond, P. Desai, K.	Calif., Santa Barbara NRAO-VLA NRAO-VLA	OH masers in W49N	18 Phased Array VLBI	17	12.2
UT002	Taylor, A.	U. of Calgary	X-ray binaries LS 1 +61d303 and Cyg X-3	6 Phased Array VLBI	8	24.4
	Staff	NRAO	Baseline/Startup/Pointing Electronics Move/Operations Software General Test			57.0 58.6 14.5 19.6 31.4

The average downtime was 5.6%.

The array was scheduled for

553.9 hours (76.7 % of time) for astronomical programs

89.9 hours (12.5 % of time) for tests/calibration

78.1 hours (10.8 % of time) for maintenance

Total 722.0 hours (100 %) scheduled.

The array was in the DnC configuration from June 1 to June 30.

Total number of astronomical programs was 57

The following independent proposals shared simultaneous observing time (133.4 hours total simultaneous observing):

Projects	Hours	Projects	Hours
ab414/gb8	1.5	af220/gw6	3.6
ac319/gb8	0.8	ar251/gv9	4.5
ac319/gb8	0.6	ar251/gv9	2.3
ac319/gv9	2.3	ar251/gz8	2.3
ac319/gw6	2.5	ar268/gv10	3.0
ac319/gz8	4.0	ar269/gv10	3.0
ac320/gb8	6.0	ar269/gv10	4.0
ad286/gb8	3.9	ar269/gz8	0.3
ad292/gb8	2.9	av193/gb8	1.5
ad292/gw6	5.5	av195/gv10	4.0
ad292/gw6	10.6	av195/gw5	4.0
af211/gv10	0.3	av195/gw6	4.0
af211/gw5	2.0	av195/gz8	4.0
af211/gw5	1.0	move/op/gz8	4.0
af211/gz8	10.0	tests/gv10	2.0
af211/gz8	1.5	tests/gv9	4.9
af219/gb8	6.0	tests/gw5	10.0
af219/gz8	1.8	tests/gw5	4.0
af220/gw5	4.0	tests/gw5	0.9

VLA Utilization Report May 1992

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AB414	Becker, R. White, R.	Calif., Davis STScI	Monitoring radio stars HD193793 and P Cygni	2, 6	12	1.5
AB456	Burke, B. Hewitt, J. Roberts, D.	MIT MIT Brandeis	Monitoring 0957+561 A,B	6	2	2.0
AB621	Bahcall, J. van Gorkom, J. Jannuzi, B. Schneider, D.	Princeton Columbia Princeton Princeton	Low redshift Ly alpha clouds	20 line	16	9.5
AB633	Burns, J. Perley, R. Gister, G.	New Mexico State NRAO-VLA Los Alamos	Imaging the cluster radio halo in Abell 2255	20, 90	23	6.0
AB637	Bastian, T. Gary, D. Nitta, N. Kiplinger, A. Dulk, G.	NRAO-VLA Caltech Lockheed Colorado Colorado	Solar flares: Microwave imaging with high time resolution	2, 3.8, 6	23	10.0
AB653	Brown, A. Skinner, S. Walter, F.	Colorado Colorado SUNY	Naked T Tauri stars in Sco OB2 assoc.	3.8 w/Move/Op	26, 31	12.5
AC295	Churchwell, E. Kurtz, S. Guilloteau, S. Zavagno, A. Wood, D.	Wisconsin Wisconsin IRAM Marseille Obs NRAO-VLA	Statistics of UC III regions	1.3	25	12.0
AC307	Chengalur, J. Salpeter, E. Terzian, Y.	Cornell Cornell Cornell	Binary galaxies	20 line	17, 22	29.5
AC316	Carilli, C. Owen, F. Harris, D.	NRAO-VLA NRAO-VLA CfA	Polarimetric imaging of 2 high redshift radio galaxies	3.8, 6	4	3.0
AD267	Drake, S. Linsky, J.	NASA/GSFC Colorado	Single-dish, Low-flux density 'radio stars': Are they real sources?	3.8 w/BY1	14	4.0
AD275	Dwarakanath, K.	NRAO-VLA	GEETEE sources	20, 90	16	3.5
AD280	de Pater, I. Dickel, J. Silva, A.	Calif., Berkeley Illinois Calif., Berkeley	Saturn at 1.3 and 90 cm	1.3, 90	15	8.0
AD283	Dulk, G. Bruner, M. Leblanc, Y. Bastian, T.	Colorado Lockheed Meudon NRAO-VLA	Joint microwave/soft X-ray obs. of fine structures in active regions	2, 3.8, 6, 20 w/BY1	12, 14	18.5
AD285	Dahlem, M. Lesch, H. Hummel, E.	Hamburger Sternwarte MPIfR, Bonn Royal Obs	Magnetic fields in NGC 5426/27	20	11	10.6
AD286	Deeg, H. Brinks, E. Duric, N. Klein, U. Skillman, E.	New Mexico/NRAO-VLA NRAO-VLA New Mexico MPIfR, Bonn Minnesota	Radio spectra of blue compact dwarf galaxies	1.3, 2, 3.8, 90	19	1.0
ADHOC1	Menten, K.	CfA	Adhoc		11	0.7
ADHOC2	Menten, K.	CfA	Adhoc		12	0.8
AF217	Frail, D. Kulkarni, S. Thorsett, S.	NRAO-VLA Caltech Caltech	Young pulsar in 65.4-1.2	20 HTRP	17	2.0
AF224	Navarro, J. Kulkarni, S. de Bruyn, G. Frail, D.	Caltech Caltech NFRA NRAO-VLA	Millisecond pulsar candidate	20, 90 HTRP	28, 29	9.0
AG330	Gomez, Y. Rodriguez, L. Moran, J.	Mexico/UNAM Mexico/UNAM CfA	Water masers outside the OH velocity range in OH/IR stars	1.3 line	19, 21	3.0
AG343	Giovannini, G. Feretti, L. Boehringer, H. Schwarz, R.	IdR, Bologna IdR, Bologna MPIfEP, Garching MPIfEP, Garching	Halo sources in A2255 and A2319	20, 90	1	6.0
AH390	Hjellming, R. Gehrz, R. Taylor, A. Seauquist, E.	NRAO-VLA Minnesota Calgary Toronto	Monitoring radio novae.	3.8, 6, 20 w/Move/Op	2, 14, 28, 29	13.1
AH424	Han, X. Hjellming, R.	NMINT/NRAO-VLA NRAO-VLA	The radio remnant of the 1989 outburst of V404 Cyg.	3.8, 6	26	5.0

VLA Utilization Report May 1992

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AH437	Hewitt, J. Turner, E. Chen, G. Angelus, A.	MIT Princeton MIT MIT	Monitoring the "Einstein Ring" gravitation lens MG1131+0456	3.5, 6	3	2.5
AH457	Heikkila, B. Webber, W. Burns, J. Walterbos, R. Duric, N.	New Mexico State New Mexico State New Mexico State New Mexico State New Mexico	Survey of edge-on spiral galaxies at 90 and 20 cm	90	24	12.0
AH461	Hibbard, J. van Gorkom, J.	Columbia Columbia	The fate of gas in interacting/merging galaxies	20 line	8, 14, 15, 16, 19, 21	54.0
AK294	Katz-Stone, D. Rudnick, L. Anderson, M. Leahy, J. Lonsdale, C. O'Donoghue, A.	Minnesota Minnesota Minnesota Manchester Haystack St. Lawrence	Evolution of the relativistic electrons in extragalactic radio sources	3.8, 20	1	1.6
AK297	Kastner, J. Weintraub, D. Kurtz, S.	Haystack Vanderbilt Wisconsin	Physics nature of CRL 2136 & its associated H2O maser	1.3, 2, 3.8, 6 line	19	4.0
AK298	Kellermann, K. Sramek, R. Green, R. Schmidt, M. Shaffer, D.	NRAO-CV NRAO-VLA KPNO-NOAO Caltech Interferometrics	Measurement of radio structures of quasars in BQS sample	6	18	10.0
AL251	Langston, G.	NRAO-CV	Gravitational lens 2016+112	3.8, 6	18	2.5
AL252	Ledlow, M. Owen, F.	New Mexico/NRAO-VLA NRAO-VLA	Radio galaxies in rich clusters	20	7	4.0
AL260	Lang, K. Willson, R. Kile, J.	Tufts Tufts Tufts	CoMStOC '92	2, 3.8, 6, 20 w/AL261	1, 3, 9, 10, 11	33.0
AL261	Lang, K. Willson, R. Kile, J.	Tufts Tufts Tufts	High resolution studies of solar flares	2, 3.8, 20, 90 w/AL260	1, 3, 9, 10, 11	33.0
AL268	Lehto, H. Nilsson, K. Valtonen, M.	Turku Turku Turku	0241+011. The largest quasar?	3.5, 6 w/Move/Op	18	1.5
AM361	Maloney, P. Skillman, E.	NASA/Ames Minnesota	HI imaging of clumpy irregular galaxies	20 line	6	12.1
AM362	McHardy, I. Green, A. Branduardi-Raymont, Mason, K. Merrifield, M.	Southampton Southampton U. College London U. College London Toronto	Deep radio survey of an extended ROSAT deep X-ray survey area	20	4	12.0
AM367	Mehring, D. Palmer, P. Goss, W. Yusef-Zadeh, F.	Chicago/NRAO-VLA Chicago NRAO-VLA Northwestern	W51 star forming region	3.8, 6, 20 line	3	12.0
AN058	Navarro, J. Kulkarni, S. Vasisht, G. Tanaka, Y. Nagase, F. Frail, D. Strom, R.	Caltech Caltech Caltech ISAS, Japan ISAS, Japan NRAO-VLA NFRA	Monitoring quiescent LMXBs	20 HTRP	27	6.0
AO107	Oren, A. Wolfe, A.	Calif., San Diego Calif., San Diego	Faraday rotation in a sample of HST selected QSOs	6, 20 w/Move/Op	12, 19	18.5
AP216	Puche, D. Westpfahl, D. Carignan, C.	NRAO-VLA NMIMT/NRAO-VLA Montreal	Dwarf galaxy DDO 47	20 line	3, 8	10.0
AP225	Phookun, B. Mundy, L.	Maryland Maryland	NGC 5713, NGC 3162 and NGC 3675: HI obs of one-armed spiral galaxies	20 line	9, 10	10.5
AP230	Payne, T. Neidig, D.	New Mexico State NSO	Search for radio emission from solar Ellerman bombs	2, 3.8, 6, 20 w/AS464	2	9.5
AP236	Perlman, E. Stoche, J. Burns, J.	Colorado Colorado New Mexico State	Evolution of radio galaxies: The distant cluster sample	20 w/Move/Op	7	4.1
AR262	Rowan-Robinson, M. Sopp, H. Lawrence, A. McMahon, R.	Queen Mary Queen Mary Queen Mary Cambridge	Nature of ultra-luminous infrared galaxies	2, 6	3	1.0

VLA Utilization Report May 1992

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AS333	Sramek, R. Weiler, K. van der Hulst, J. Panagia, N.	NRAO-VLA NRL Groningen/Kapteyn STScI	Statistical properties of radio supernovae	2, 6	19	2.5
AS450	Sahai, R. Claussen, M.	Chalmers, Onsala NRL	Time variation of the enigmatic radio source in IRC+10216	1.3, 2, 3.8	30	6.0
AS458	Szomoru, A. van Gorkom, J. Gregg, M.	Groningen/Kapteyn Columbia Mt. Stromlo	High resolution obs of HI selected void galaxies	20 line	1, 2, 7, 9	32.0
AS464	Schmahl, E. Gopalswamy, N. Kundu, M. White, S. Canfield, R. de La Beaujardiere,	NASA/GSFC Maryland Maryland Maryland Hawaii Hawaii	Identification of precipitation sites in solar flares	2, 3.8, 6, 20 w/AP230	2	9.5
AS468	Smith, B. Wallin, J.	Texas NRL	HI mapping of the interacting galaxy pair NGC 7714/5	20 line	21	10.0
AT109	Torrelles, J. Gomez, J. Verdes-Montenegro, L Rodriguez, L. Gomez, Y. Roth, M. Tapia, M.	IAA, Granada Cfa IAA, Granada Mexico/UNAM Mexico/UNAM Las Campanas Obs Mexico/UNAM	Southern blister HII region GM24.	1.3 line	22	1.0
AT127	Thorsett, S. Taylor, J. Hankins, T. Stinebring, D.	Caltech Princeton NMINT/NRAO-VLA Oberlin	Timing fast pulsars	6, 20, 90 w/AT132	23	25.0
AT132	Taylor, J. Thorsett, S. McKinnon, M.	Princeton Caltech NMINT/NRAO-VLA	A test for binary pulsar orbital stability	90 w/AT127	23	25.0
AT134	Taylor, A. Dougherty, S.	Calgary Calgary	Monitoring of radio variable Be stars	3.8 w/Move/Op	8, 18	4.0
AT143	te Lintel Hekkert, P Habing, H. Blommaert, J. Dejonghe, H. Rich, M. Winberg, A.	Mt. Stromlo Leiden Leiden Sterrenkundig Columbia Chalmers, Onsala	OH/IR stars: 1612 MHz survey of galactic plane	18 line	30	8.0
AV193	van der Hucht, K. Williams, P. Spoelstra, T.	Utrecht Royal Obs NFRA	Wolf-Rayet object WR125	2, 6, 20	13	1.0
AW314	White, S. Lim, J. Kundu, M.	Maryland Maryland Maryland	Magnetic fields on M dwarf stars	2, 3.5	31	13.0
AW319	Wood, D.	NRAO-VLA	Sulfur dioxide absorption toward compact HII regions	1.3, 3.8 line	9, 11	16.0
AW321	Wood, D. Adler, D. Goss, W.	NRAO-VLA NRAO-VLA NRAO-VLA	High resolution study of anomalous helium abundance variations in W3	3.8 line	17	16.0
AW327	White, S. Lim, J. Pallavicini, R.	Maryland Maryland Arcetri	Search for polarization inversion on weak-line T Tauri stars	2, 6	30	4.0
AZ055	Zhao, J. Goss, W. Dwarakanath, K. Fang, L. Bi, H.	NRAO-VLA NRAO-VLA NRAO-VLA Arizona MPIfEP, Garching	Search for HI absorption toward cooling flows of clusters of galaxies	20 line	15	7.0
BP001	Phillips, R. Titus, M. Lestrade, J.	Haystack Haystack Meudon	VLBI observations of O supergiants.	3.8, 20 Phased Array VLBI	29	12.5
BR001	Reid, M. Readhead, A.	Cfa Caltech	Measurement of the trigonometric parallax of the galactic center: Choosing reference sources	3.8 Phased Array VLBI	28	6.0
BY001	Yusef-Zadeh, F. Melia, F. Walker, C.	Northwestern Northwestern NRAO-VLA	Sgr A*, the compact radio source at the galactic center.	1.3 Phased Array VLBI	13, 14	12.1
	Staff	NRAO	Baseline/Startup/Pointing Electronics Move/Operations Software Standard Field Observation General Tests			31.7 47.2 47.9 32.2 12.0 33.7

The average downtime was 6.0%.

The array was scheduled for

552.5 hours (74.1 % of time) for astronomical programs
114.2 hours (15.3 % of time) for tests/calibration
79.4 hours (10.6 % of time) for maintenance
Total 746.1 hours (100 %) scheduled.

The array was in the C configuration from May 1 to May 26.
DnC configuration from May 26 to May 31.

Total number of astronomical programs was 61.

The following independent proposals shared simultaneous observing time (69.0 hours total simultaneous observing):

Projects	Hours	Projects	Hours
ab653	1.3	al260/al261	4.5
ad267/by1	4.0	al268/move/op	1.5
ad283/by1	1.8	ao107/move/op	5.0
ah390/move/op	1.5	ap230/as464	9.5
al260/al261	8.5	ap236/move/op	2.3
al260/al261	6.0	pointing/by1	5.2
al260/al261	6.0	at134/move/op	2.5
al260/al261	8.0	standard field/ move/op	1.3

VLA Utilization Report April 1992

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AA133	Alexander, P. Blundell, K. Pooley, G. Riley, J. Liu, R.	Cambridge Cambridge Cambridge Cambridge Cambridge	ENLRs and asymmetries in radio sources	2, 3.8, 6 w/Move/Op	9	12.1
AA140	Aschwanden, M. Bastian, T. Benz, A. White, S.	NASA/GSFC NRAO-VLA ETH, Zurich Maryland	CoMSTOC 92	3.8, 6, 20	3, 4, 5, 6, 9, 10	33.2
AA142	Altenhoff, W. Johnston, K. Webster, W. Seidelman, P.	MPIfR, Bonn NRL NASA/GSFC USNO	Physical properties of asteroids	1.3, 3.8	12	2.0
AB414	Becker, R. White, R.	Calif., Davis STScI	Monitoring radio stars HD193793 and P Cygni	2, 6	6	1.5
AB608	Biretta, J. Perley, R.	NRAO-VLA NRAO-VLA	Search for superluminal motion in kiloparsec scale jets: 3C273, 3C279	2, 6 line	15	2.0
AB634	Baudry, A. Brouillet, N. Henkel, C. Klein, U.	Bordeaux Obs Bordeaux Obs MPIfR, Bonn MPIfR, Bonn	Position and kinematics of H2O masers in inner nucleus of M82	1.3 line	16	5.0
AB636	Bastian, T. Nitta, N. Vourlidis, A.	NRAO-VLA Lockheed NMIMT	Solar active regions: Structure and preflare phase	2, 3.8, 6, 20, 90	12, 17	24.0
AB637	Bastian, T. Gary, D. Nitta, N. Kiplinger, A. Dulk, G.	NRAO-VLA Caltech Lockheed Colorado Colorado	Solar flares: Microwave imaging with high time resolution	2, 3.8, 6	19	11.8
AC306	Churchwell, E. Walmsley, C. Cesaroni, R. Hofner, P. Wood, D.	Wisconsin MPIfR, Bonn Arcetri Wisconsin NRAO-VLA	New NH3 maser toward G9.62+0.19	1.3 line	19	4.5
AC315	Carilli, C. Dwarakanath, K. Goss, W. van Gorkom, J.	NRAO-VLA NRAO-VLA NRAO-VLA Columbia	Search for 21 cm absorption by the warm neutral interstellar medium	20 line	27	8.5
AD275	Dwarakanath, K.	NRAO-VLA	GEETEE sources	20, 90	6, 18	4.5
AD286	Deeg, H. Brinks, E. Duric, N. Klein, U. Skillman, E.	New Mexico NRAO-VLA New Mexico MPIfR, Bonn Minnesota	Continuum spectra of blue compact dwarf galaxies	1.3, 2, 3.6, 90	18	8
AD287	Deeg, H. Brinks, E. Klein, U.	New Mexico NRAO-VLA MPIfR, Bonn	Radio spectra of low surface brightness galaxies	3.8, 20	14	5.0
AD288	Drake, S. Linsky, J. Stewart, R. Bastian, T.	NASA/GSFC Colorado CSIRO NRAO-VLA	Magnetic BP stars	3.8	14	7.0
AD289	Dubner, G. Giacani, E. Winkler, P. Goss, W.	IAFE, Argentina IAR, Buenos Aires Middlebury NRAO-VLA	Imaging of the SNR 3C400.2	90	1	4.0
ADHOC	Krishna, G.	TIFR	Adhoc		28	0.5
AF217	Frail, D. Kulkarni, S. Thorsett, S.	NRAO-VLA Caltech Caltech	Young pulsar in G5.4-1.2	20 HTRP	10	1.5
AF222	Leone, F. Umaga, G.	Catania IdR, Bologna	Survey of radio emitting magnetic chemically peculiar stars	6	12	3.0
AG344	Giovannini, G. Feretti, L. Boehringer, H. Schwarz, R.	IdR, Bologna IdR, Bologna MPIfEP, Garching MPIfEP, Garching	Cluster radio halo candidates	20, 90	5, 18	9.0
AG345	Garay, G. Lizano, S. Gomez, Y.	Chile Mexico/UNAM Mexico/UNAM	Cometary compact HII regions: Bow shock or champagne flows?	3.8 line	20	10.0
AH390	Hjellming, R. Gehrz, R. Taylor, A. Seagquist, E.	NRAO-VLA Minnesota Calgary Toronto	Monitoring radio novae.	3.8, 6, 20	12, 18, 21	9.0

VLA Utilization Report April 1992

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AH437	Hewitt, J. Turner, E. Chen, G. Angelus, A.	MIT Princeton MIT MIT	Monitoring the "Einstein Ring" gravitation lens MG1131+0456	3.8, 6	17	2.0
AH453	Huang, Z. Thuan, T.	Virginia Virginia	HI distribution and kinematics of blue compact dwarf galaxies	20 line	10	9.5
AH456	Henning, P. Sancisi, R.	NFRA Groningen/Kapteyn	HI near the elliptical galaxy NGC 4472	20 line	23	12.5
AJ216	Joncas, G. Green, D.	Laval Cambridge	Investigation of promising sources from the DRAO galactic plane survey	3.8, 6, 20	10	6.0
AK294	Katz-Stone, D. Rudnick, L. Anderson, M. Leahy, J. Lonsdale, C. O'Donoghue, A.	Minnesota Minnesota Minnesota Manchester Haystack St. Lawrence	Evolution of the relativistic electrons in extragalactic radio sources	3.8, 20	30	6.9
AK298	Kellermann, K. Sramek, R. Green, R. Schmidt, M. Shaffer, D.	NRAO-CV NRAO-VLA KPNO-NOAO Caltech Interferometrics	Measurement of radio structures of quasars in BQS sample	6	4	7.6
AL252	Ledlow, M. Owen, F.	New Mexico NRAO-VLA	Radio galaxies in rich clusters	20	22	2.1
AL256	La Franca, F. Cristiani, S. Gregorini, L. de Ruiter, H. Owen, F.	IdR, Bologna Padova Obs IdR, Bologna IdR, Bologna NRAO-VLA	Complete sample of optically selected quasars: B=19.4 to z=3.3	6	21	5.1
AL258	Lo, K. Sargent, W. Engargiola, G.	Illinois Caltech Illinois	HI mapping of 3 faint dwarf irregular galaxies	20 line	20	15.9
AM336	Miley, G. Rottgering, H. Chambers, K.	Leiden Leiden Hawaii	Study of radio galaxies z>2	2, 3.8, 20	30	9.0
AM345	Mirabel, I. Rodriguez, L. Cordier, B. Paul, J. Lebrun, F.	CNRS, France Mexico/UNAM CNRS, France CNRS, France CNRS, France	1E 1740.7-2942	3.8, 6, 20 w/Move/Op	9, 11	10.2
AM356	Mangum, J. Wooten, A.	Texas NRAO-CV	Study of young stellar objects in DR21(OH)	1.3 line	16	8.5
AM360	McMullin, J. Mundy, L.	Maryland Maryland	Survey of young stellar objects	1.3, 2, 3.8	17, 27	6.0
AM367	Mehring, D. Palmer, P. Goss, W. Yusef-Zadeh, F.	Chicago/NRAO-VLA Chicago NRAO-VLA Northwestern	W51 star forming region	3.8, 6, 20 line	23	12.0
AP214	Pedlar, A. Longley, D. Kukula, M. Baum, S. O'Dea, C.	Manchester Manchester Manchester STScI STScI	NGC 4151	2	25	4.0
AP217	Puche, D. Westpfahl, D. Brinks, E.	NRAO-VLA NMIMT NRAO-VLA	Nearby dwarf galaxies	20 line	27	8.0
AP224	Pedelty, J. Odegard, N. Dickel, J. Pisarski, R.	NASA/GSFC GSC/GSFC Illinois NASA/GSFC	P band mapping of the Cygnus loop SNR	90	28	13.0
AP228	Puche, D. Westpfahl, D. Brinks, E. Deeg, H.	NRAO-VLA NMIMT NRAO-VLA New Mexico	The energy balance in two nearby dwarf galaxies	3.8, 6, 20, 90	13	6.0
AP230	Payne, T. Neidig, D.	New Mexico State NSO	Search for radio emission from solar Ellerman bombs	2, 3.8, 6, 20 w/AS464	24, 26	16.0
AP233	Pedlar, A. Axon, D. Kukula, M. Unger, S. Baum, S. O'Dea, C.	Manchester Manchester Manchester RGO STScI STScI	8GHz obs of the CfA Seyfert sample	3.8 w/Move/Op	28	12.5

VLA Utilization Report April 1992

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AR240	Ratner, M. Lebach, D. Bartel, N. Shapiro, I.	Cfa Cfa Cfa Cfa	Reference star search for NASA gyroscope relativity experiment.	3.8	26	2.0
AR255	Rucinski, S.	York U.	Contact binary stars	3.8 w/Move/Op	24	4.5
AR262	Rowan-Robinson, M. Sopp, H. Lawrence, A. McMahon, R.	Queen Mary Queen Mary Queen Mary Cambridge	Nature of ultra-luminous infrared galaxies	2, 6 w/BL1/Move/Op	5, 24, 26	12.0
AR265	Rodriguez, L. Anglada, G. Estalella, R.	Mexico/UNAM Barcelona Barcelona	Spectral index of IRAS 16293-2422B	1.3, 2	30	4.0
AR266	Richter, O. Saha, A. Hoessel, J.	STScI STScI Wisconsin	UGC-A86 and UGC-A92: Local group galaxies or companions of IC342	20 line	13	3.0
AR267	Reid, M. Readhead, A.	Cfa Caltech	Measurement of the trigonometric parallax of the galactic center	1.3	18	3.0
AR268	Rodriguez, L. Curiel, S.	Mexico/UNAM Cfa	Radio monitoring of the outburst in SVS13	3.8, 6	20, 21	6.2
AS333	Sramek, R. Weiler, K. van Dyk, S. Panagia, N.	NRAO-VLA NRL NRL STScI	Statistical properties of radio supernovae	2, 6	4	2.0
AS437	Seaquist, E. Odegard, N.	Toronto GSC/GSFC	Synchrotron emission from galactic superwinds	6, 20 w/Move/Op	2, 6	16.0
AS458	Szomoru, A. van Gorkom, J. Gregg, M.	Groningen/Kapteyn Columbia Mt. Stromlo	High resolution obs of HI selected void galaxies	20 line	24	8.0
AS464	Schmahl, E. Gopalswamy, N. Kundu, M. White, S. Canfield, R. de La Beaujardiere,	NASA/GSFC Maryland Maryland Maryland Hawaii Hawaii	Identification of precipitation sites in solar flares	2, 3.8, 6, 20 w/AP230	24, 26	16.0
AS467	Schmelz, J. Strong, K. Holman, G.	ARC/GSFC Lockheed NASA/GSFC	CoMStOC '92	3.8, 6, 20 w/AW313	11	11.8
AT137	Taylor, C. Brinks, E. Skillman, E.	Minnesota/NRAO-VLA NRAO-VLA Minnesota	High resolution study of intergalactic HI clouds	20 line	14, 16, 22	4.5
AU044	Umana, G. Trigilio, C. Hjellming, R. Catalano, S. Frasca, A.	IdR, Bologna IdR, Bologna NRAO-VLA Catania IdR, Bologna	Algol-type systems: RZ Cas	1.3, 2, 3.8, 6, 20 w/Move/Op	25	3.0
AU047	Uson, J. Bagri, D. Cornwell, T.	NRAO-VLA NRAO-VLA NRAO-VLA	Two Zel'dovich pancakes	90 line	14, 21	19.0
AV190	van Moorsel, G. Sparke, L. Schwarz, U.	ESO, Garching Wisconsin Groningen	HI study of the peculiar galaxy NGC 3718	20 line w/BL1	1, 4	21.1
AV193	van der Hucht, K. Williams, P. Spoelstra, T.	Utrecht Royal Obs NFRA	Wolf-Rayet object WR125	2, 6, 20	6	1.0
AV194	van Breugel, W. McCarthy, P. Kapahi, V.	Lawrence Livermore Carnegie Obs GMRT/TIFR	Distant radio galaxy studies in the southern hemisphere	3.8	26	7.0
AW249	Wills, B. Shastri, P.	Texas Calif., Berkeley	Core variability in lobe-dominated quasars	6 w/Move/Op	3	9.5
AW313	White, S. Kundu, M. Gopalswamy, N.	Maryland Maryland Maryland	CoMStOC '92	2, 3.8, 6, 20 w/AS464	11	11.8
AW316	Womble, D. Carilli, C. Dickey, J. Bowen, D.	Calif., San Diego NRAO-VLA Minnesota STScI	Probing the extent of disk galaxies: QSO absorption vs. HI emission	20 line	5, 11	18.0
AW319	Wood, D.	NRAO-VLA	Sulfur dioxide absorption toward compact HII regions	1.3, 3.8 line	13	8.0
AW337	Wootten, A. Benson, P.	NRAO-CV Wellesley	Water Maser in 16234-2417	1.3 line	2	1.5
AY045	Yin, Q. Heeschen, D.	NRAO-CV NRAO-CV	Supernovae in MKN 297	3.8, 6, 20	16	4.0

VLA Utilization Report April 1992

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AZ044	Zhao, J. Ekers, R. Goss, W. Lo, K. Narayan, R.	NRAO-VLA AT, Australia NRAO-VLA Illinois Arizona	Flux density variations in Sgr A.	3.8, 6, 20	3	2.0
AZ053	Zhao, J. Carilli, C. Anantharamaiah, K. van Gorkom, J.	NRAO-VLA NRAO-VLA Raman Institute Columbia	Seyfert NGC 1068	3.8, 6, 20, 90	25	10.0
AZ055	Zhao, J. Goss, W. Dwarakanath, K. Fang, L. Bi, H.	NRAO-VLA NRAO-VLA NRAO-VLA Princeton MPIfEP, Garching	Search for HI absorption toward cooling flows of clusters of galaxies	20 line	26	7.0
AZ056	Zhao, J. Goss, W. Anantharamaiah, K.	NRAO-VLA NRAO-VLA Raman Institute	Radio recombination lines from starburst nuclei of nearby galaxies	3.8 line	17	7.0
BL001	Lestrade, J. Jones, D. Preston, R. Phillips, R. Gabuzda, D.	JPL/Meudon JPL JPL Haystack Calgary	Astrometry of 12 radio stars	4 w/AV190, AR262, Tests	4	8.1
GR002	Brown, L. Roberts, D. Ochs, M. Wardle, J.	Brandeis Brandeis Brandeis Brandeis	Polarization of 3C273	3.8, 6 w/GR3	1	10.9
GR003	Roberts, D. Brown, L. Ochs, M. Wardle, J.	Brandeis Brandeis Brandeis Brandeis	Polarization of 3C345	3.8, 6 w/GR2	1	10.9
	Staff	NRAO	Baseline/Startup/Pointing Electronics Move/Operations Software General Test			48.9 60.6 36.1 37.0 31.6

The average downtime was 6.9%.

The array was scheduled for
 526.6 hours (73.0 % of time) for astronomical programs
 96.8 hours (13.4 % of time) for tests/calibration
 97.6 hours (13.5 % of time) for maintenance
 Total 721.0 hours (100 %) scheduled.

The array was in the C configuration from April 1 to April 30.
 Total number of astronomical programs was 72.

The following independent proposals shared simultaneous observing time (84.5 hours total simultaneous observing):

Projects	Hours	Projects	Hours
aa133/move/op	7.1	as464/ap230	8.0
am345/move/op	1.3	as464/ap230	8.0
am345/tests	2.1	as467/aw313	11.8
ap233/move/op	3.0	au44/move/op	3.0
ar255/move/op	1.4	av190/bl1	3.5
ar262/bl1	2.6	aw249/move/op	7.5
ar262/move/op	4.5	gr2/gr3	10.9
as437/move/op	7.7	tests/bl1	2.0

VLA Astronomical Observing March 1992

Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AA123	Andre, P. Feigelson, E. Leous, J. Montmerle, T.	CNRS, France Penn State Penn State CNRS, France	Circular polarization from magnetic star S1 in rhoOPH cloud.	3.8	6	2.0
AB414	Becker, R. White, R.	Calif., Davis STScI	Monitoring radio stars HD193793 and P Cygni	2, 6	5	2.0
AB456	Burke, B. Hewitt, J. Roberts, D.	MIT MIT Chicago	Monitoring 0957+561 A,B	6	6	2.0
AB640	Braun, R. Fabian, A.	NFRA Cambridge	Molecular gas in galaxy clusters: OH	20 line	13, 16	27.0
AC323	Curiel, S. Rodriguez, L.	CfA Mexico/UNAM	Emission associated with HH 12	2, 6	2	3.5
AD278	Deich, W. Kulkarni, S. Thorsett, S. Middleditch, J. Frail, D.	Caltech Caltech Caltech Los Alamos NRAO-VLA	Deep pulse searches towards globular clusters	20 HTRP	1, 2	16.0 16.5
AF217	Frail, D. Kulkarni, S. Thorsett, S.	NRAO-VLA Caltech Caltech	Young pulsar in G5.4-1.2	20 HTRP	20	1.0
AG348	Guedel, M. Skinner, S. Linsky, J. Brown, A. Fuerst, E.	Colorado Colorado Colorado Colorado MPIfR, Bonn	Decimeter-to-millimeter spectra of 6 bright RS CVn binaries	1.3, 2, 3.8, 6, 20	16, 17	6.5
AH390	Hjellming, R. Gehrz, R. Taylor, A. Seagquist, E.	NRAO-VLA Minnesota Calgary Toronto	Monitoring radio novae.	3.8, 6, 20	6, 12, 30	3.0 4.0
AH433	Hummel, C. Quirrenbach, A.	MPIfR, Bonn USNO	Kpc-scale structure of the peculiar S5-quasar 0153+744	20	13	1.0
AH437	Hewitt, J. Turner, E. Chen, G. Angelus, A.	MIT Princeton MIT MIT	Monitoring the "Einstein Ring" gravitation lens MG1131+0456	3.8, 6	8	2.0
AK299	Knezek, P. Schneider, S.	Massachusetts Massachusetts	Vertical gas motions in low surface brightness giants	20 line	6, 7	24.0
AL251	Langston, G.	NRAO-CV	Gravitational lens 2016+112	3.8, 6	3, 5	5.0
AL262	Lehnert, M. Baum, S. O'Dea, C. Armus, L. Caganoff, S.	Johns Hopkins STScI STScI Johns Hopkins Johns Hopkins	Galactic superwinds: 3 starburst galaxies	6, 20	16	10.0
AM345	Mirabel, I. Rodriguez, L. Cordier, B. Paul, J. Lebrun, F.	CNRS, France Mexico/UNAM CNRS, France CNRS, France CNRS, France	1E 1740.7-2942	3.8, 6, 20	21 w/Jan 18	3.0
AM364	Morganti, R. Parma, P. Fanti, R. de Ruiter, H. Capetti, A.	IdR, Bologna IdR, Bologna IdR, Bologna IdR, Bologna IdF, Torino	Polarization study of B2 radio galaxies	6	12, 18	32.0 32.0
AN057	Neininger, N. Horellou, C. Beck, R.	MPIfR, Bonn Meudon MPIfR, Bonn	Detailed magnetic field structure of M51	20	29	16.5 16.6
AO108	Odehahn, S.	Minnesota	HI in the Magellanic type galaxy NGC 4618	20 line	6	8.0
AP206	Phookun, B. Mundy, L.	Maryland Maryland	NGC4254 and NGC4654: HI observations of one-armed spiral galaxies.	20 line	4, 11	16.5 16.6
AP225	Phookun, B. Mundy, L.	Maryland Maryland	NGC 5713, NGC 3162 and NGC 3675: HI obs of one-armed spiral galaxies	20 line	14, 17, 19	24.5
AR263	Rudolph, A. de Geus, E. Brand, J. Wouterloot, J.	Maryland Maryland Arcetri Koln	Outer galaxy massive star forming clouds	3.8, 6	8	5.5
AS333	Sramek, R. Weiler, K. van Dyk, S. Panagia, N.	NRAO-VLA NRL NRL STScI	Statistical properties of radio supernovae	2, 6	1, 3	3.0
AS453	Smith, B.	Texas	HI in "ripple" galaxy NGC 2782	20 line	19	4.5
AS460	Sanbonmatsu, K. Helfand, D.	Columbia Columbia	Kinematic distance determination for SNR G27.4+0.0	20 line	3	5.0

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VLA Astronomical Observing March 1992

Progrm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AS465	Sarazin, C. O'Dea, C. Baum, S.	Virginia STScI STScI	Radio imaging of the complex X-ray source 2A 0335+096	3.8, 20	14	6.0
AT127	Thorsett, S. Taylor, J. Hankins, T. Stinebring, D.	Caltech Princeton NMIMT/NRAO-VLA Oberlin	Timing fast pulsars	6, 20, 90 HTRP	17	11.0
AT131	Thorsett, S. McKinnon, M. Taylor, J.	Caltech NMIMT/NRAO-VLA Princeton	Binary pulsar timing	20, 90 HTRP	5, 6, 10, 12	8.0
AT134	Taylor, A. Dougherty, S.	Calgary Calgary	Monitoring of radio variable Be stars	3.8	15	3.0
AT137	Taylor, C. Brinks, E. Skillman, E.	Minnesota/NRAO-VLA NRAO-VLA Minnesota	High resolution study of intergalactic HI clouds	20 line	1	18.0 17.6
AU047	Uson, J. Bagri, D. Cornwell, T.	NRAO-VLA NRAO-VLA NRAO-VLA	Two Zel'dovich pancakes	90 line w/ GV7	2, 3, 5, 7, 9, 15, 20	64.5 64.6
AV190	van Moorsel, G. Sparke, L. Schwarz, U.	ESO, Garching Wisconsin Groningen	HI study of the peculiar galaxy NGC 3718	20 line	28, 31 w/ GX2	10.5
AV191	Viallefond, F. Lequeux, J.	Meudon Meudon	Small scale structure in the extinction in M33 HII regions	3.8	20 ⁵ w/ VAH7, GV7	8.0
AV194	van Breugel, W. McCarthy, P. Kapahi, V.	Lawrence Livermore Carnegie Obs. GMRT, Pune	Distant radio galaxy studies in the southern hemisphere	3.8	20	1.0
AW311	Wallace, B. Taylor, A. Goss, W. Normandeau, M.	Calgary Calgary NRAO-VLA Calgary	Search for new SNRs	6, 20	15	9.0
AW322	Winkler, P. Dubner, G. Goss, W.	Middlebury IAFE, Argentina NRAO-VLA	Radio imaging of the new optical SNR G203.2-12.3	20	28 w/ GX2	6.0
AY043	Yusef-Zadeh, F.	Northwestern	High-resolution mosaic of the Sgr A complex	3.8	8	8.0
GC007	Campbell, R. Corey, B. Shapiro, I. Falco, E.	CfA Haystack CfA CfA	Lensed quasar 0957+561	6 Phased Array VLBI	21	47.0 16.8
GC008	Cawthorne, T. Roberts, D. Wardle, J. Ge, J-P. Gabuzda, D.	CfA Brandeis Brandeis Brandeis Calgary	Three quasars with prominent jets	6 Phased Array VLBI	24	24.0 24.2
GG007	Giovannini, G. Comoretto, G. Feretti, L. Venturi, T. Wehrle, A.	IdR, Bologna Arcetri IdR, Bologna IdR, Bologna Caltech	3 low luminosity radio galaxies	6 Phased Array VLBI	29	43.0 12.5
GG009	Gabuzda, D. Cawthorne, T.	Calgary CfA	BL Lac objects: the 1Jy sample	6 Phased Array VLBI	22	49.0 48.8
GL004	Lestrade, J. Phillips, R. Gabuzda, D. Preston, R.	Meudon Haystack Calgary JPL	Astrometry of RS CVn stars	6 Phased Array VLBI	22	13.5 13.7
GP009	Patnaik, A. Browne, I. Porcas, R.	Manchester Manchester NRAO-VLA	Small separation gravitational lenses	6 Phased Array VLBI	26	36.5 36.7
GR002/ GR3	Roberts, D. Brown, L. Ochs, M. Wardle, J.	Brandeis Brandeis Brandeis Brandeis	Polarization of 3C273, 3C345	3.6, 6 Phased Array VLBI	25, 30	51.0 56.8
GV007	Venturi, T. Pearson, T.	IdR, Bologna Caltech	Two superluminals w/ AV191, AU47, pointing	6 Single Antenna VLBI	20	45.0 15.1
GV008	Vermeulen, R. Conway, J. Hough, D. Readhead, A.	Caltech NRAO-VLA Trinity Caltech	Very weak quasar cores: 3C175, 3C181	3.6 Phased Array VLBI	30 31	11.5 11.6
GX002	Xu, W. Readhead, A. Wilkinson, P. Polatidis, A. Pearson, T. Lawrence, C. Herbig, T.	Caltech Caltech Manchester Manchester Caltech Caltech Caltech	Large scale snapshot survey	6 Single Antenna VLBI w/ tests, AW322, AV190	28	46.0 16.2

VLA Astronomical Observing March 1992

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
UAH007	Porcas, R.	NRAO-VLA	0626+600	6	20	3.0
						3.1
UAH008	Migenes, V.	Manchester	Test with 112 MHz bandwidth	6	21	3.0
						3.2
UH002	Hewitt, J. Cappallo, R. Corey, B. Ellithorpe, J. Lestrade, J. Lonsdale, C. Niell, A. Phillips, R. Preston, R.	MIT Haystack Haystack MIT Meudon Haystack Haystack Haystack JPL	Astrometry of dMe stars	3.6	8, 9	22.0
						24.0
	Staff	NRAO	Baselines, Pointing, Delays			28.0
			Maintenance			52.5
			Software			26.5
			Testing			25.0

VLA Utilization Report February 1992

Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AA137	Andre, P.	CNRS, France	Young stellar objects in rho OPII A	2, 6	1	5.5
AA141	Andre, P. Mutel, R. Phillips, R.	CNRS, France Iowa Haystack	Polarization and spectral properties of 2 magnetized YSO's	2, 3.5, 6, 20	18, 20	12.1
AB414	Becker, R. White, R.	Calif., Davis STScI	Monitoring radio stars HD193793 and P Cygni	2, 6	16	1.5
AB456	Burke, B. Hewitt, J. Roberts, D.	MIT MIT Brandeis	Monitoring 0957+561 A,B	6 w/BZ1	3, 28	4.0
AB623	Burns, J. Brown, D. Olwin, R.	New Mexico State New Mexico State St. Mary's College	Parkes sources in rich southern clusters	20	1, 6	12.5
AB625	Brown, R. Holdaway, M.	NRAO-CV NRAO-VLA	Ionized hydrogen at galactic center: H138 beta	6 line	6	8.0
AB626	Beck, S. Ho, P. Turner, J.	Tel Aviv U. Cfa Calif., L. A.	NGC 5253	3.8, 6	11	3.0
AB630	Brown, A. Bromage, G. Jeffries, R.	Colorado Rutherford Birmingham, U. of	Two young coronally-active dwarfs from ROSAT WFC All-Sky Survey	3.8	4	4.0
AC317	Chanmugam, G. Mason, P. Fisher, P.	LSU LSU LSU	Magnetic cataclysmic variable star BY Cam	3.8, 6, 20	23	12.0
AC318	Cesaroni, R. Hofner, P. Walmsley, C. Churchwell, E. Kurtz, S.	Arcetri Wisconsin MPIFR, Bonn Wisconsin Wisconsin	Hot NH3 toward ultracompact HII regions	1.3 line	22, 24, 28	22.0
AC320	Cote, S. Carignan, C. Freeman, K.	Mt. Stromlo Montreal Mt. Stromlo	HI kinematics of dwarf irregulars in Sculptor and Centaurus groups	20 line w/BZ1	2, 5, 7, 12	20.0
AC322	Chernin, L. Masson, C.	Cfa Cfa	Neutral wind from L1448C	20 line w/BZ1	7, 8, 13	14.1
AD276	Dey, A. van Breugel, W.	Calif., Berkeley Lawrence Livermore	Nearby galaxies with blue continuum	6	14, 15	10.0
AD278	Deich, W. Kulkarni, S. Thorsett, S. Middleditch, J. Frail, D.	Caltech Caltech Caltech Los Alamos NRAO-VLA	Deep pulse searches towards globular clusters	20 HTRP	27	8.0
AD281	de Pater, I.	Calif., Berkeley	Jupiter's spectrum at long wavelengths	20, 90	26, 27	13.1
AD290	Drake, S. White, N. Florkowski, D. Linsky, J.	NASA/GSFC NASA/GSFC USNO Colorado	ROSAT/VLA observations of 4 Algol binaries	3.8, 20 w/BZ1	1, 2, 6, 29	21.0
ADHOC1	Perley, R.	NRAO-VLA	ADHOC		10, 21	3.4
ADHOC2	Becker, R.	Calif., Davis	ADHOC		2	0.5
AE087	Elias, N. Florkowski, D.	USNO USNO	Detection experiment for the stars of the MarkIII astrometric catalog	3.8 w/Move/Op	20	18.1
AF217	Frail, D. Kulkarni, S. Thorsett, S.	NRAO-VLA Caltech Caltech	Young pulsar in G5.4-1.2	20 HTRP	18	1.5
AF220	Frail, D. Kassim, N. Weiler, K. Dwarakanath, K.	NRAO-VLA NRL NRL NRAO-VLA	Further studies of 2 PSR-SNR associations	90 line	9	8.0
AF223	Fiebig, D. Duschl, W. Menten, K. Tscharnuter, W.	MPIFR, Bonn Heidelberg Obs Cfa Heidelberg Obs	H2O Maser Outbursts in FU Ori Objects	1.3 line w/BZ1	7	2.0
AF224	Navarro, J. Kulkarni, S. de Bruyn, G. Frail, D.	Caltech Caltech NFRA NRAO-VLA	Millisecond pulsar candidate	20 HTRP	18	5.0
AF225	Frail, D. Wolszczan, A.	NRAO-VLA Arecibo	Search for extended emission around PSR 1257+12	3.8, 20 Gated Correlator	15, 18	11.0
AG333	Gomez, Y. Moran, J. Rodriguez, L.	Mexico/UNAM Cfa Mexico/UNAM	Planetary NGC 6302 proper motion	3.8	15, 16	8.0
AG347	Grossman, A. Muhleman, D.	Maryland Caltech	The radio light-curve of Titan	3.8	1-4, 7-9, 13, 15-18, 20, 23, 25, 27, 29	20.5
AG350	Ge, J. Owen, F.	Brandeis NRAO-VLA	Polarimetry of NGC 1275	3.8	22	10.0

VLA Utilization Report February 1992

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AH390	Hjellming, R. Gehrz, R. Taylor, A. Sequist, E.	NRAO-VLA Minnesota Calgary Toronto	Monitoring radio novae.	3.8, 6, 20	25	1.0
AH437	Hewitt, J. Turner, E. Chen, G. Angelus, A.	MIT Princeton MIT MIT	Monitoring the "Einstein Ring" gravitation lens MG1131+0456	3.8, 6	11	2.0
AH448	Hollis, J. Yusef-Zadeh, F.	NASA/GSFC Northwestern	R Aquarii Core	3.8	15	8.0
AJ215	Jaffe, W. McNamara, B.	Leiden Groningen/Kapteyn	Neutral hydrogen in cooling flow clusters	20 line	24	15.0
AK285	Koo, B. Yun, M. Ho, P. Kumar, P. Heiles, C.	CfA CfA CfA NCAR Calif., Berkeley	Structure of HII region G5.48-0.24	6, 20	3	2.0
AK286	Kapahi, V. Athreya, R. Subrahmanya, C. McCarthy, P. van Breugel, W.	TIFR TIFR TIFR Carnegie Lawrence Livermore	Molonglo radio galaxies	6	16	16.0
AL257	Lacy, M. Warner, P.	Cambridge Cambridge	The highest redshift giant radiogalaxy	20	27	3.0
AL263	Li, G. Sequist, E.	Toronto Toronto	Distributions of HI in SO galaxies	20 line	25	12.6
AM345	Mirabel, I. Rodriguez, L. Cordier, B. Paul, J. Lebrun, F.	CNRS, France Mexico/UNAM CNRS, France CNRS, France CNRS, France	1E 1740.7-2942	3.8, 6, 20	20	3.0
AM351	Mulchaey, J. Mushotzky, R.	Maryland NASA/GSFC	Galaxy-IGM interactions	3.8	28	8.5
AM353	Moffett, D. Goss, W. Reynolds, S.	New Mexico Tech NRAO-VLA N. C. State	SN 1006 - expansion	20	2	4.0
AM358	Moore, E. Gottesman, S.	Florida Florida	HI obs of the barred spiral galaxies NGC 1398 and NGC 1784	20 line	9, 10	19.0
AN058	Navarro, J. Kulkarni, S. Vasisht, G. Tanaka, Y. Nagase, F. Frail, D. Strom, R.	Caltech Caltech Caltech ISAS, Japan ISAS, Japan NRAO-VLA NFRA	Monitoring quiescent LMXBs	20	17	7.0
AP213	Pedlar, A. Longley, D. Anantharamaiah, K. van Gorkom, J. Goss, M.	Manchester Manchester Raman Institute Columbia NRAO-VLA	168 alpha lines from galactic center	20 line	13, 14	16.0
AR253	Roberts, D. Yusef-Zadeh, F.	NRAO-VLA Northwestern	High velocity ionized gas in Sgr A	3.8 line	8, 10	13.0
AR260	Richter, O. Sackett, P. Sparke, L.	STScI Pittsburgh Wisconsin	Polar ring galaxy NGC 5122	20 line	7	8.3
AR268	Rodriguez, L. Curiel, S.	Mexico/UNAM CfA	Radio monitoring of the outburst in SVS13	3.8, 6	4	3.0
AS450	Sahal, R. Claussen, M.	Chalmers, Onsala NRL	Time variation of the enigmatic radio source in IRC+10216	1.3, 2, 3.8	8	5.0
AS457	Sahal, R. Claussen, M. Luttermoser, D. Brown, A.	Chalmers, Onsala NRL Iowa State Colorado	Carbon star V Hydrae	2, 3.8	7, 9	13.0
AT137	Taylor, C. Brinks, E. Skillman, E.	Minnesota/NRAO-VLA NRAO-VLA Minnesota	High resolution study of intergalactic HI clouds	20 line	29	12.4
AU044	Umana, G. Trigilio, C. Hjellming, R. Catalano, S. Frasca, A.	CNR, Bologna CNR, Bologna NRAO-VLA Catania CNR, Bologna	Algol-type systems: RZ Cas	1.3, 2, 3.8, 6, 20	4, 5, 12, 14, 15, 27	18.5
AV193	van der Hucht, K. Williams, P. Spoelstra, T.	Utrecht Royal Obs NFRA	Wolf-Rayet object WR125	2, 6, 20	18	1.5

VLA Utilization Report February 1992

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AW297	Wallin, J. Higdon, J. Appleton, P.	NRL Texas Iowa State	Ring galaxy AM1354-250 continuum	6 w/BZ1	4	8.0
AW298	Wallin, J. Higdon, J. Appleton, P.	NRL Texas Iowa State	Ring galaxy AM1354-250 H1	20 line	3	9.0
AZ044	Zhao, J. Ekers, R. Goss, W. Lo, K. Narayan, R.	NRAO-VLA AT, Australia NRAO-VLA Illinois Arizona	Flux density variations in Sgr A.	3.8, 6, 20 w/BZ1	7	2.5
AZ056	Zhao, J. Goss, W. Anantharamaiah, K.	NRAO-VLA NRAO-VLA Raman Institute	Radio recombination lines from starburst nuclei of nearby galaxies	3.8 line	22, 25	22.0
BG005	Giovannini, G. Cotton, B. Feretti, L. Marcaide, J. Venturi, T. Wehrle, A. Vermeulen, R.	IdR, Bologna NRAO-CV IdR, Bologna IdA, Spain IdR, Bologna JPL Caltech	5 radio galaxies	3.8	2	3.0
BZ001	Zhang, Y. Marscher, A.	Boston Boston	Spectral investigation of a complete sample of compact doubles.	1.3, 3.8, 20 Single Antenna VLBI w/Tests, AB456, AW297, Software.	3, 6, 7	30.9
	Staff	NRAO	Baseline/Startup/Pointing Electronics Move/Operations Software General Test			56.7 51.3 16.9 35.0 48.4

The average downtime was 3.6%.

The array was scheduled for
 496.5 hours (71.1 % of time) for astronomical programs
 115.4 hours (16.5 % of time) for tests/calibration
 86.1 hours (12.3 % of time) for maintenance
 Total 697.9 hours (100 %) scheduled.

The array was in the CnB configuration from February 1 to February 20.
 C configuration from February 20 to February 29.

Total number of astronomical programs was 55.

The following independent proposals shared simultaneous observing time (36.4 hours total simultaneous observing):

Projects	Hours	Projects	Hours
ab456/bz1	2.0	ag347/bz1	1.0
ac320/bz1	5.0	ar260/bz1	2.7
ac322	2.0	aw297/bz1	1.7
ad290/bz1	6.0	az44/bz1	0.3
ae87/move/op	3.0	software/bz1	0.5
ae87/move/op	2.5	tests/bz1	6.5
af223/bz1	2.0	tests/bz1	1.2

VLA Utilization Report January 1991 1992

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AA133	Alexander, P. Blundell, K. Pooley, G. Riley, J. Liu, R.	Cambridge Cambridge Cambridge Cambridge	ENLRs and asymmetries in radio sources	3.8, 6, 20	10	15.1
AA134	Antonucci, R. Freedman, R. Coleman, P. Barvainis, R. Geller, R.	Calif., Santa Barbara Calif., Santa Barbara Groningen/Kapteyn Haystack Calif., Santa Barbara	Primeval galaxy/quasar search	6	10	3.5
AA138	Andre, P. Gudel, M.	NRAO-TUC Colorado	Young magnetic B stars in Taurus-Auriga	3.8 w/BG5	23, 24	11.1
AB414	Becker, R. White, R.	Calif., Davis STScI	Monitoring radio stars HD193793 and P Cygni	2, 6	16	1.5
AB456	Burke, B. Hewitt, J. Roberts, D.	MIT Haystack Brandeis	Time variation of 0957+561 A,B	6	6	2.0
AB607	Benz, A. Gudel, M. Schmitt, M.	ETH Zurich ETH Zurich MPIFEP, Munchen	Monitoring the quiescent radio emission of UV Cet	2, 3.8, 6 w/Move/Op	2, 3, 15	11.2
AB608	Biretta, J. Perley, R.	NRAO-VLA NRAO-VLA	Search for superluminal motion in kiloparsec scale jets: 3C273, 3C279	2, 6 line	6	2.0
AC295	Churchwell, E. Kurtz, S. Guilloteau, S. Zavagno, A. Wood, D.	Wisconsin Wisconsin IRAM Marseille Obs NRAO-VLA	Statistics of UC HII regions	3.8	6	11.0
AC298	Caganoff, S. Armus, L. Ford, H.	Johns Hopkins Johns Hopkins Johns Hopkins	Polarimetry of the emission line loops in NGC 3079	3.8, 6	12	5.6
AC310	Cowan, J. Branch, D. Roberts, D.	Oklahoma Oklahoma NRAO-VLA	Supernovae 1957D and 1950B in M83	20	4	8.0
AD277	Diamond, P. Frail, D. Cordes, J. van Langevelde, H.	NRAO-VLA NRAO-VLA Cornell Leiden	OH/IR stars at the Galactic Center	20	13	2.1
AD288	Drake, S. Linsky, J. Stewart, R. Bastian, T.	NASA/GSFC Colorado CSIRO NRAO-VLA	Magnetic BP stars	3.8 w/BG5	20, 24	11.5
AE083	Elias, N.	USNO	Detection of chromospherically active variables	3.8	26	24.5
AE084	Erickson, W. Grossman, A. Douglas, J.	Maryland Maryland Texas	Scintillation by Jupiter's magnetosphere	90	25	1.0
AE085	Engels, D. Winnberg, A. Lindqvist, M. Walmsley, M.	Hamburger Sternwarte Chalmers, Onsala Chalmers, Onsala MPIfR, Bonn	Water masers in circumstellar shells	1.3 line	10	3.0
AF217	Frail, D. Kulkarni, S. Thorsett, S.	NRAO-VLA Caltech Princeton	Young pulsar in G5.4-1.2	20	18	3.5
AF222	Leone, F. Umana, G.	Catania IdR, Bologna	Survey of radio emitting magnetic chemically peculiar stars	6 w/BG5	24, 25	10.0
AG335	Gudel, M. Lim, J.	ETH, Zurich Macquarie	K stars	3.8	3, 18, 28	12.5
AH390	Hjellming, R. Gehrz, R. Taylor, A. Sequist, E.	NRAO-VLA Minnesota Calgary Toronto	Monitoring radio novae.	3.8, 6, 20	30	6.0
AH424	Han, X. Hjellming, R.	NMIMT/NRAO-VLA NRAO-VLA	The radio remnant of the 1989 outburst of V404 Cyg.	3.8, 6	28	5.0
AH437	Hewitt, J. Turner, E. Chen, G. Angelus, A.	MIT Princeton MIT MIT	Monitoring the "Einstein Ring" gravitation lens MG1131+0456	3.8, 6	10	2.0
AJ200	Jacobson, A. Erickson, W. Mercier, C.	Los Alamos Maryland Paris Obs	Ionospheric dynamics	90	7, 9, 10, 12, 13, 16, 18	8.0
AK283	Katgert, P. de Ruiter, H.	Leiden Bologna	Power & redshift dependence of quasar radio morphology	20	4	12.0

VLA Utilization Report January 1991

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AK287	Kundu, M. White, S. Gopalswamy, N. Lin, R.	Maryland Maryland Maryland Calif., Berkeley	Solar flares	2, 3.8, 6	4, 7, 10	16.5
AL247	Lang, K. Willson, R. Kile, J.	Tufts Tufts Tufts	Solar corona	20, 90	9, 10	9.1
AL249	Longley, D. Pedlar, A. Hummel, E. van der Hulst, J.	Manchester Manchester Royal Obs Groningen/Kapteyn	Compact flat spectrum core sources in spiral nuclei	2, 3.8	14	4.5
AL251	Langston, G.	NRAO-CV	Gravitational lens 2016+112	3.8, 6	18	2.5
AL252	Ledlow, M. Owen, F.	New Mexico NRAO-VLA	Radio galaxies in rich clusters	20	12	10.0
AM345	Mirabel, I. Rodriguez, L. Cordier, B. Paul, J. Lebrun, F.	CNRS, France Mexico/UNAM CNRS, France CNRS, France CNRS, France	1E 1740.7-2942	3.8, 6, 20	28	3.0
AM349	Mundy, L. Salter, M. Grossman, A.	Maryland Maryland Maryland	Dust emission from circumstellar disks	1.3, 2, 3.8	1, 7	16.6
AP217	Puche, D. Westpfahl, D. Brinks, E.	NRAO-VLA New Mexico Tech NRAO-VLA	Nearby dwarf galaxies	20 line	8, 17, 18	24.0
AR243	Roberts, D. Taylor, G.	NRAO-VLA Arcetri	Absorption distance determination to galactic-plane variables	20 line	25	16.0
AR252	Reynolds, S.	N. C. State	Supernova remnants	6	17	5.0
AR261	Rowan-Robinson, M Sopp, H. Lawrence, A. McMahon, R. Broadhurst, T.	Queen Mary Queen Mary Queen Mary Cambridge Royal Obs	Search for high redshift infrared galaxies	6	2, 8, 17, 19, 30	15.1
AS333	Sramek, R. Weiler, K. Van Dyk, S. Panagia, N.	NRAO-VLA NRL NRL STSci	Statistical properties of radio supernovae	2, 6	26, 27	8.5
AS438	Sparks, W. Macchetto, F. Miley, G.	STSci STSci Leiden	3C66B: a double stranded optical jet	1.3	18	6.0
AS452	Schachter, J. Elvis, M. Stoche, J. Perlman, E. Morris, S.	CfA CfA Colorado Colorado Carnegie	BL Lacs from Einstein slew survey	6 w/BG5	30	22.0
AT110	Torrelles, J. Rodriguez, L. Canto, J. Ho, P. Gomez, J.	IAA, Andalucia Mexico/UNAM Mexico/UNAM CfA CfA	Ammonia observations of protoplanetary disks.	1.3 line	3, 5, 9	30.2
AT114	Taylor, A. Dougherty, S.	Calgary Calgary	Monitoring of radio variable Be stars.	3.8	30	3.5
AT118	Thorsett, S. Taylor, J. McKinnon, M.	Princeton Princeton NMIMT/NRAO-VLA	Binary pulsar timing measurements: pulsars not accessible to Arecibo.	20, 90 w/BG5	20, 21, 23 - 25	9.2
AT126	Taylor, G. Hu, E.	Arcetri Hawaii	Quasar & Lyman Alpha companion in 1033+137	3.8	8	4.0
AT127	Thorsett, S. Taylor, J. Hankins, T. Stinebring, D.	Princeton Princeton NMIMT/NRAO-VLA Oberlin	Timing fast pulsars	6, 20, 90	5	10.8
AU046	Uson, J. Bagri, D. Cornwell, T.	NRAO-VLA NRAO-VLA NRAO-VLA	Absorption in galaxies/QSOs at z=3.3	90 line	16, 17, 19	32.5
AW302	Weisberg, J. Frail, D. Johnston, S. Cordes, J.	Carleton NRAO-VLA CSIRO Cornell	HI absorption toward pulsars in the inner galaxy	20 line	20, 21, 23, 27	31.0
AW304	Waldron, W.	ARC	Radio/X-ray comparison of early-type stars	3.8 w/BG5	24	5.5
AW305	Wannier, P. Andersson, B. Moriarty-Schieven, G Federman, S.	JPL JPL JPL Toledo	Warm OH around molecular clouds	20 line	11	14.0

VLA Utilization Report January 1991

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AW306	Wannier, P. Andersson, B. Moriarty-Schieven, G	JPL JPL JPL	Warm HI around molecular clouds	20 line	12	12.0
AY045	Yin, Q. Heeschen, D.	NRAO-CV NRAO-CV	Supernovae in MKN 297	3.8, 6, 20	6	3.8
AZ044	Zhao, J. Ekers, R. Goss, W. Lo, K. Narayan, R.	NRAO-VLA AT, Australia NRAO-VLA Illinois Arizona	Flux density variations in Sgr A.	3.8, 6, 20	13	2.0
AZ052	Zhao, J. Goss, W. Lo, K. Ekers, R.	NRAO-VLA NRAO-VLA Illinois AT, Australia	Galactic center at 1.3 & 3.6 cm	1.3, 3.8	19	8.0
AZ053	Zhao, J. Carilli, C. Anantharamaiah, K. van Gorkom, J.	NRAO-VLA NRAO-VLA Raman Institute Columbia	Seyfert NGC 1068	6, 20, 90	13	11.1
BG005	Giovannini, G. Cotton, B. Feretti, L. Marcaide, J. Venturi, T.	IdR, Bologna NRAO-CV IdR, Bologna IAA, Andalucia IdR, Bologna	5 radio galaxies	3.8, 18	23, 24, 30	59.2
	Staff	NRAO	Baseline/Startup/Pointing Electronics Move/Operations Holiday/Shutdown Software Standard Field Observation General Test		1 15	51.7 55.6 30.0 15.7 39.6 12.0 31.7

The average downtime was 6.9%.

The array was scheduled for

516.9 hours (69.3 % of time) for astronomical programs

119.2 hours (16.0 % of time) for tests/calibration

94.3 hours (12.6 % of time) for maintenance

Total 730.4 hours (97.9 %) scheduled.

The array was in the B configuration from January 1 to January 20.

CnB configuration from January 20 to January 31.

Total number of astronomical programs was 52.

The following independent proposals shared simultaneous observing time (64.2 hours total simultaneous observing):

Projects	Hours	Projects	Hours
aa138/bg5	7.1	at114/bg5	3.5
aa138/bg5	4.0	aw304/bg5	5.5
ab607/move/op	3.0	baseline/bg5	4.5
ad288/bg5	3.5	move/op/bg5	1.1
af222/bg5	6.0	software/bg5	2.0
as452/bg5	10.5	test/perley/ move/ops	2.0
as452/bg5	11.5		