

## VLA Utilization Report December 2001

Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AB0957	Bastian, T.S. Vilmer, N. Gary, D.E. Benz, A.O.	NRAO-CV Paris (France) New Jersey Tech ETH	Joint microwave and hard xray imaging of solar flares	0.7, 1.3, 2, 3.6, 6	28	6.0
AB1004	Blundell, K. Perley, R. Rawlings, S. Kassim, N. Lazio, T.J.W. Owen, F.	Oxford NRAO-Socorro Oxford NRL NRL NRAO-Socorro	The very large, steep spectrum outer structure of a FR II radiogalaxy	20, 90	1	8.0
AB1006	Berger, E. Rutledge, R. Bildsten, L. Martin, E. Gizis, J. Basri, G.	Caltech Caltech Calif.-Santa Barbara Hawaii IPAC Calif.-Berkeley	Search for emission from L and late M stars	3.6	6	3.5
AB1007	Bureau, M. van Gorkom, J. Carignan, C. Walter, F.	Columbia Columbia Montreal Caltech	An HI Mosaic of HoII-U4438-M81dwA	20 line  28	18, 18, 26, 28	27.1
AB1008	Bruns, C. Kerp, J.	Bonn Univ. Bonn Univ.	HI small scale structure in the northern Magellanic Stream	20 line w/BD79	15, 16, 17	22.7
AC600	Clarke, T.	NRAO-Socorro	Faraday study of galaxy cluster core sources	3.6 w/BG118	21	24.0
AC602	Cesaroni, R. Furuya, R. Testi, L. Codella, C.	Arcetri Arcetri Arcetri CNR-Roma	Twin high mass YSOs in G24.78+0.08	0.7	29	5.0
AC605	Claussen, M.J. Wilner, D.J.	NRAO-Socorro CfA	Monitoring continuum emission from TW Hya	2, 3.6, 6, 20	3, 15, 31	3.5
AC608	Choi, M. Lim, J. Takakuwa, S.	Academia Sinica Academia Sinica Academia Sinica	Structure of Class 0 protostars	0.7	22	3.0
AC612	Carilli, C. Petric, A. Bertoldi, F. Menten, K. Omont, A. Cox, P. Djorgovski, G. McMahon, R. Isaak, K.	NRAO-Socorro Columbia MPIfR MPIfR IAP-Paris IAP-Paris Caltech Cambridge Cambridge	CO emission from two infrared luminous high redshift QSOs	0.7	7, 9	10.0
AC614	Cotter, G. Bolton, R. Jones, M. Grainge, K. Pooley, G. Waldran, E. Taylor, A. Saunders, R.	Cambridge Cambridge Cambridge Cambridge Cambridge Cambridge Cambridge Cambridge	Followup of the Cambridge 15 GHz survey	0.7, 1.3, 6, 20	8	2.0
AC622	Carilli, C. Beelen, A. Bertoldi, F. Cox, P. Isaak, K. McMahon, R. Menten, K. Omont, A. Petric, A. Priddey, R.	NRAO-Socorro IAP MPIfR IAP Cambridge Cambridge MPIfR IAP Columbia Cambridge	Sensitive radio imaging of far-IR luminous QSOs at z~2	20	29	2.0
AD453	Disney, M.J. de Blok, W.J.G. Dalcanton, J. Minchin, R.F. Grossi, M. Vlahakis, C.E. Garcia, D.A. Kilborn, V.A. Boyce, P.U. Ryder, S.D. Staveley-Smith, L. Ekers, R.D. Knezek, P.M. Eales, S.A.	Cardiff ATNF Washington Cardiff Cardiff Cardiff Cardiff Jodrell Bank Bristol AAO ATNF Calif.-Berkeley Johns Hopkins Cardiff	Hydrogen rich giant galaxies found in the HIPASS blind HI survey	20 line	1	1.5

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Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AD455	Dettmar, R.-J. Tullmann, R. Soida, M. Urbanik, M.	Bochum Bochum Jagiellonian Jagiellonian	Role of magnetic fields in the halo dynamics of NGC 5775	3.6	2, 14	16.0
AG604	Giovannini, G. Brunetti, G. Feretti, L. Govoni, F. Setti, G.	Bologna Bologna Bologna Bologna Bologna	A665 and A2163 halo sources	90 W/BG118	21	2.0
AH717	Hardcastle, M.J. Sakelliou, I.	Bristol Mullard	Jets and their termination in wide angle tail radio galaxies	3.6	18, 20	2.0
AH744	Harris, D.E. Krawczynski, H. Kassim, N. Katz-Stone, D. Lane, W.	CfA Yale NRL USNA NRL	Jet-intracluster medium interactions of radio galaxy 3C 129	20	5	2.0
AH751	Hollis, J.M. Jewell, P.R. Palmer, P. Pedenly, J.A. Snyder, L.E. Lovas, F.J.	GSFC NRAO-GB Chicago GSFC Illinois Illinois	Search for interstellar glycine	0.7 W/BG118	7, 10, 20, 23, 26	27.5
AH752	Hunter, D. Hunsberger, S. Wilcots, E. Simpson, C. Elmegreen, B.	Lowell Lowell Wisconsin Florida Int. IBM	Origin of dwarf galaxies	20 line	9	8.0
AH753	Hunter, D. Elmegreen, B. Brinks, E. Westpfahl, D. Nordgren, T. Wilcots, E.	Lowell IBM Guanajuato NMIMT Lowell Wisconsin	Clouds, Porosity, and star formation in normal irregular galaxies	20	6	4.0
AH779	Hogg, D.E. Roberts, M.S.	NRAO-CV McGill	HI companion to UGC 3384	20 line	10	2.0
AI093	Ivison, R.J. Greve, T.R. Carilli, C.L. Papadopoulos, P. Lewis, G.F.	ROE Edinburgh NRAO-Socorro Leiden AOO	Mapping high z gas rich mergers via CO J=1-0	0.7, 1.3	9, 27	14.5
AI096	Ivison, R.J. Townsend, R.H.D. Blain, A.W. Smail, I. Frayer, D.T.	ROE University College Caltech Durham CalTech	Search for water and OH masers in BAL quasar APM 08279+5255	6, 90	3	5.0
AK509	Kulkarni, S.K. Frail, D. Galama, T.J. Blom, J.S. Berger, E. Harrison, F.A.	Caltech Caltech Caltech Caltech Caltech	Radio afterglows from gamma ray bursts		1,3,5-8,10,1 2-15,17-20,2 2,23,26-31	62.6
AK537	Koo, B-C. Lee, J-J.	Seoul Seoul	HI line study of the supernova remnant IC 443	20	1	10.0
AL515	Ledlow, M. Owen, F.	Gemini NRAO-Socorro	Search for giant, low-power FRI radio galaxies	20	23	7.0
AL551	Lim, J. Ho, P.T.P.	Academia Sinica CfA	HI Imaging of Seyfert galaxies: search for tidal interactions	20 line	19,20	50.5
AL554	Li, D. Dickey, J.M. Goldsmith, P.	Cornell Minnesota Cornell	Deep imaging of HI narrow line absorption in dark clouds	20	29	10.0
AM674	Mohan, N.R. Kurtz, S.	Raman UNAM	Extended emission around ultracompact HII regions	2, 3.6, 6	20, 30	20.0
AM697	Minier, V. Cesaroni, R. Pestalozzi, M. Booth, R.	New South Wales Arcetri Onsala Onsala	Search for embedded massive YSOs toward 6.7 GHz methanol masers	0.7, 1.3, 2	22	5.0
AM698	Murgia, M. Parma, P. Mack, K.-H. de Ruiter, H.	Bologna Bologna ASTRON Bologna	Dying radio galaxy candidates	6	7, 8	12.0
AM701	McKean, J.P. Browne, I.W.A. Jackson, N.J. Rusin, D.	Jodrell Bank Jodrell Bank Jodrell Bank CfA	Spectral energy distributions of faint flat-spectrum radio galaxies	1.3, 2, 3.6, 6	31	3.0

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Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AM702	Markovic, T. Owen, F. Eilek, J.	NMIMT NRAO-Socorro NMIMT	Radio halos in Abell Clusters of galaxies	20	28, 30	9.5
AM705	Moran, J.M. Greenhill, L. Kondratko, P.T. Herrnstein, J.	CfA CfA Harvard Renaissance Tech	VLA polarimetry of the masers in NGC 4258	1.3 line	16	13.0
A0163	Owen, F. Lonsdale, C. Morrison, G. Smith, G. Xu, C.	NRAO-Socorro IPAC IPAC Calif-San Diego IPAC	Very deep radio/SIRTF survey: faint source, radio FIR correlation	20	15	2.0
AP425	Phillips, C.J. Minier, V. van Langevelde, H.J.	JIVE New South Wales JIVE	Methanol masers: tracers of hot cores and discs?	1.3 line	7	2.0
AR458	Rupen, M.P. Mioduszewski, A.J. Dhawan, V.	NRAO-Socorro NRAO-Socorro NRAO-Socorro	Radio and x-ray activity in Galactic black hole X-ray transients	0.7, 1.3, 2, 3.6, 6, 20	4, 9, 10, 15, 18 ,26, 31	10.7
AR469	Reid, M. Fish, V. Ho, P.	CfA CfA CfA	DR21: a dual cometary HII region	0.7, 1.3 line	23	8.0
AS718	Su, Y-N Ho, P.T.P. Lim, J.	NCU CfA ASIAA	Molecular envelopes of high-mass protostars	1.3	19	5.0
AT265	Testi, L. Natta, A. Wilner, D. Shepherd, D.	Arcetri Arcetri CfA NRAO-AOC	Search for evolved disks in pre-main sequence stars of intermediate mass	0.7, 3.6	12, 15, 24	20.5
AT268	Thilker, D. Braun, R.	NRAO-SOC NFRA	HI observations of a possible companion to M33	20 line	2, 6, 7, 8, 9, 14	48.6
AU088	Urbanik, M. Chyzy, K. Bomans, D. Klein, U.	Jagiellonian Jagiellonian Bochum Bonn Univ.	Blue compact galaxies: IC 10	3.6, 6 w/BM157, move, op	4, 28, 31	24.0
AV250	Vollmer, B. Kenney, J. van Gorkom, J. Beck, R.	MPIfR Yale Columbia MPIfR	Active stripping of the Virgo spiral galaxy NGC 4522	6, 20	26, 31	10.0
AV252	Trung, V.D. Lim, J. Shinnaga, H.	Academia Sinica Academia Sinica Academia Sinica	Wind sources IK Tau and IRC+10216	0.7 line	13	4.5
AV253	Trung, V.D. Lim, J.	Academia Sinica Academia Sinica	Dust disks in IRC+10216 and the Egg Nebula	0.7	2, 13, 14	6.5
AW568	Wilcots, E. van Gorkom, J. Zabludoff, A. Mulchaey, J. Williams, B.	Wisconsin Columbia Wisconsin Carnegie Obs. Delaware	Evolution of HI content of poor groups of galaxies	20 line	22, 30	12.0
AW579	Weiler, K. Panagia, N. Sramek, R.A. Stockdale, C. Van Dyk, S.	NRL STScI NRAO-Socorro NRL Caltech	Properties of radio supernovae	90, 20, 6, 3, 5, 2, 1.3	27	1.5
AY127	Yusef-Zadeh, F. Reid, M. Roberts, D.	Northwestern CfA Northwestern	Search for SiO masers in the arches and the quintuplet clusters	0.7 line	4	4.5
AZ134	van Zee, L. Salzer, J.J. Skillman, E.D.	Indiana Wesleyan Minnesota	Kinematics of gas rich blue compact dwarf galaxies	20 line	29	2.0
AZ136	Zhao, J-H. McGary, R.S. Goss, M. Bower, G.	CfA CfA NRAO-Socorro Calif.-Berkeley	VLA monitoring the 106-day cycle of Sgr A	0.7, 1.3, 2	1, 8, 17, 23, 31	8.0
BB143	Braatz, J. Greenhill, L. Henkel, C. Moran, J. Wilson, A.	NRAO-GB CfA MPIfR CfA Maryland	Imaging the nuclear water maser in Mrk 1419	1.3 Phased array VLBI	3	10.1
BD079	Diamond, P.J. Kemball, A.J.	Jodrell Bank NRAO-Socorro	TX Cam returns	0.7 Single antenna VLBI w/AB1008	17	4.4

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Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
BG113	Gomez, J.L. Marscher, A.P. Marchenko-Jorstad, S. Alberdi, A. Agudo, I. Martí, J.M. Aloy, M.A. Ibanez, J.M.	IAA Boston Boston IAA IAA Jaen Valencia Valencia	Monitoring superluminal components in 3C120	0.7, 1.3, 2	15	3.0
BG118	Greenhill, L. Chandler, C.J. Diamond, P. Moran, J.M. Reid, M.J.	CfA NRAO-Socorro Jodrell Bank CfA CfA	SiO maser motions in Orion BN/KL	0.7 Single antenna VLBI w/AH751,AG604,AC600	20	6.3
BM157	Mantovani, F. Junor, W. Saikia, D.J. Salter, C.J.	Bologna New Mexico NCRA-Pune Arecibo	Polarization and rotation measure in CSS QSOs	3.6, 6 Single antenna VLBI w/AU88	4	11.8
BN018	Nakai, N. Ishihara, Y. Sato, N. Diamond, P.	NAO NAO NAO Jodrell Bank	New water maser features in NGC 3079	1.3 Phased array VLBI	16	15.3
W405	Argon, A.L. Reid, M.J. Greenhill, L.J. Moran, J.M.	CfA CfA CfA CfA	Nuclear jet in M87	6, 20 Phased array VLBI	22, 23	5.5
	Staff	NRAO	Baselines, Pointing, Delays Holiday Shutdown Maintenance Software General tests			47.3 37.1 34.5 26.0 42.9

The average downtime was 4.1%.

The array was scheduled for 95.0 % (709.0 hours)

561.0 hours (75.2% of time) for astronomical programs

87.5 hours (11.7% of time) for tests/calibration

60.5 hours (8.1% of time) for maintenance

Total 709.0 hours ( 95.0%) scheduled.

Array was in the D configuration from December 1 through December 31

Total number of programs was 57.

The following independent proposals shared simultaneous observing time (23.3 hours total simultaneous observing):

Projects	Hours
AB1008/BD79	3.5
AC600/BG118	0.2
AG604/BG118	2.0
AH751/BG118	4.1
AK509/BD79	0.9
AU88/AM157	7.1
AU88/MOVE/OP	0.8
Baselines/BM157	4.7

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AB0957	Bastian, T.S. Vilmer, N. Gary, D.E. Benz, A.O.	NRAO-CV Paris New Jersey Tech ETH	Joint microwave and hard xray imaging of solar flares	0.7, 1.3, 2, 3.6, 6 w/WT58	3, 5	5.5
AB1004	Blundell, K. Perley, R. Rawlings, S. Kassim, N. Lazio, T.J.W. Owen, F.	Oxford NRAO-Socorro Oxford NRL NRL NRAO-Socorro	The very large, steep spectrum outer structure of a FR II radiogalaxy	20, 90	25	6.0
AB1006	Berger, E. Rutledge, R. Bildsten, L. Martin, E. Gizis, J. Basri, G.	Caltech Caltech Calif.-Santa Barbara Hawaii IPAC Calif.-Berkeley	Search for emission from L and late M stars	3.6	1, 26	4.0
AB1007	Bureau, M. Carignan, C. van Gorkom, J. Walter, F.	Columbia Montreal Columbia Caltech	An HI Mosaic of HOII-U4438-M81dWA	20	17	6.2
AB1009	Beltran, M.T. Estalella, R. Ho, P.T.P. Anglada, G.	CfA Barcelona CfA IAA	7mm continuum survey of very young thermal radio jets	0.7	25, 28	11.1
AC605	Claussen, M.J. Wilner, D.J.	NRAO-Socorro CfA	Monitoring continuum emission from TW Hya	2, 3.6, 6, 20 w/WT58	5, 19	2.5
AC606	Cappa, C. Goss, M. van der Hucht, K.A.	IAR NRAO-Socorro SRON (Utrecht)	Survey of radio continuum emission from Wolf-Rayet stars	3.6	12	9.0
AC611	Choi, M. Lim, J.	Academia Sinica Academia Sinica	Wiggling molecular outflow of NGC 1333 IRAS 4A	0.7 line	2, 3	10.0
AC612	Carilli, C. Petric, A. Bertoldi, F. Menten, K. Omont, A. Cox, P. Djorgovski, G. McMahon, R. Isaak, K.	NRAO-Socorro Columbia MPIFR MPIFR IAP-Paris IAP-Paris Caltech Cambridge Cambridge	CO emission from two infrared luminous high redshift QSOs	0.7	3	5.0
AC614	Cotter, G. Bolton, R. Jones, M. Grainge, K. Pooley, G. Waldran, E. Taylor, A. Saunders, R.	Cambridge Cambridge Cambridge Cambridge Cambridge Cambridge Cambridge Cambridge	Followup of the Cambridge 15 GHz survey	0.7, 1.3, 6, 20	23, 27	14.0
AD453	Disney, M.J. de Blok, W.J.G. Dalcanton, J. Minchin, R.F. Grossi, M. Vlahakis, C.E. Garcia, D.A. Kilborn, V.A. Boyce, P.J. Ryder, S.D. Staveley-Smith, L. Ekers, R.D. Knezek, P.M. Eales, S.A.	Cardiff ATNF Washington Cardiff Cardiff Cardiff Cardiff Jodrell Bank Bristol AAO ATNF ATNF Johns Hopkins Cardiff	Hydrogen rich giant galaxies found in the HIPASS blind HI survey	20 line	30	6.5

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Program	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AD454	Disney, M.J. de Blok, W.J.G. Dalcanton, J. Minchin, R.F. Grossi, M. Garcia, D. Vlahakis, C. Linder, S. Kilborn, V. Boyce, P.J. Staveley-Smith, L. Ekers, R. Knezeck, P.	Cardiff ATNF Washington Cardiff Cardiff Cardiff Cardiff Cardiff Jodrell Bank Bristol ATNF ATNF Johns Hopkins	Enigmatic HI sources from the HIPASS blind equatorial survey	20 Line W/BG118	13, 18, 19	24.1
AH748	Holzapfel, W. Carlstrom, J. Dawson, K.	Chicago Chicago Calif.-Berkeley	Identification of point source contaminants in anisotropy fields	3.6, 6	26	16.5
AH752	Hunter, D. Hunsberger, S. Wilcots, E. Simpson, C. Elmegreen, B.	Lowell Lowell Wisconsin Florida Int. IBM	Origin of dwarf galaxies	20 line	2	4.0
AH755	Hameed, S. Young, L.	NMSU NMIMT	HI Imaging of early-type spirals	20	1	3.0
AH757	Hofner, P. Kurtz, S. Araya, E. Linz, H. Cesaroni, R. Molinari, S.	Puerto Rico UNAM Puerto Rico Puerto Rico Arcetri IFSI	Accretion disks around massive proto-stars	0.7	26, 30	15.0
AH758	Heft, D.J. Halpern, J.P.	Columbia Columbia	HI absorption distance to the new gamma ray pulsar PSR J2229+6114	20 line	16	4.1
AJ283	Johnston-Hollitt, M. Clarke, T.	ATNF NRAO	High resolution observations of the radio relic in 0917+75	6, 20	8, 9	22.5
AK509	Kulkarni, S.K. Frail, D. Galama, T.J. Bloom, J.S. Berger, E. Harrison, F.A.	Caltech NRAO-Socorro Caltech Caltech Caltech Caltech	Radio afterglows from gamma ray bursts	1,2,4,7-9,11 ,14-16,20,21 ,23,24,26,30 W/BC111,BD79		37.6
AL515	Ledlow, M. Owen, F.	Gemini NRAO-Socorro	Search for giant, low-power FRI radio galaxies	20 W/BD79	12, 30	13.0
AL549	Lim, J. Liang, M-C. Choi, M. Su, Y-N.	Academia Sinica Academia Sinica Academia Sinica NCU (Taiwan)	Imaging the dust disks of Vega type stars	0.7	19, 21	5.0
AL551	Lim, J. Ho, P.T.P.	Academia Sinica CfA	HI Imaging of Seyfert galaxies: search for tidal interactions	20 line W/BH85	1	10.0
AM687	Monnier, J.D. Greenhill, L. Tuthill, P.G. Danchi, W.C.	CfA CfA Sydney NASA/GSFC	Monitoring the WR 112 binary system	0.7, 1.3, 2, 3.6, 6, 20	13	6.0
AM697	Minier, V. Cesaroni, R. Pestalozzi, M. Booth, R.	New South Wales Arcetri Onsala Onsala	Search for embedded massive YSOs toward 6.7 GHz methanol masers	0.7, 1.3, 2	25, 27	9.9
AM699	McGary, R.S. Ho, P.T.P. Coil, A.	CfA CfA Calif.-Berkeley	Mapping hot gas near the galactic center	1.3	16	2.5
AN100	Nindos, A. Alissandrakis, C.E.	Ioannina Ioannina	Mapping energetic electrons in solar flares	2, 6	26, 29	8.5
AR458	Rupen, M.P. Mioduszewski, A.J. Dhawan, V.	NRAO-Socorro NRAO-Socorro NRAO-Socorro	Radio and x-ray activity in Galactic black hole X-ray transients	0.7, 1.3, 2, 3.6, 6, 20 W/BH85,BT58,BC111	2,4-6,11,12, 14-18,20,21, 23,24,26,29	31.5
AR470	Rodriguez, L.F. Anglada, G. Torrelles, J.M.	UNAM IAA Catalunya	Incidence of disks in young binary systems	0.7	20	8.0
AS716	Shinnaga, H. Choi, M.	Academia Sinica Academia Sinica	Ammonia in late-stage starless cores	1.3 line	15	8.0
AS718	Su, Y-N. Lim, J. Ho, P.T.P.	NCU (Taiwan) Academia Sinica CfA	Molecular envelopes of high-mass protostars	1.3 line	16	1.8
AT263	Thuan, T.X. Ulvestad, J.S.	Virginia NRAO-Socorro	Deeply embedded starburst in the BCD galaxy SBS 0335-052	3.6	8	4.0

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Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AT268	Thilker, D. Braun, R.	NRAO-Socorro NFRA	HI observations of a possible companion to M33	20 line W/BT58,BC111	4, 5, 10, 29	32.0
AV251	Vollmer, B. Balkowski, C. Cayatte, V.	MPIfR Paris Obs. Paris Obs.	Anemic galaxies in the Virgo cluster	20 line W/BC111	11, 23, 29	9.0
AW559	White, S. Kundu, M. Garairov, V.	Maryland Maryland Maryland	Microwave, millimeter and hard x-ray observations of solar flares	2, 6	11, 16	9.5
AW564	Willson, R.F.	Tufts	Collaborative VLA and HESSI observations of solar flares	1.3, 2, 3.6 W/BH85	1, 2, 4	13.0
AW569	Wall, J.V. Perley, R. Silk, J. Laing, R. Taylor, A.	Oxford NRAO-Socorro Oxford Oxford Cambridge	43 GHz survey of two fields	0.7 W/BH85	2, 3, 12, 23	25.5
AW571	Wyrowski, F. Carey, S. Egan, M. Feldman, P. Redman, R.	Maryland Boston AFRL NRC NRC	Temperature structure of infrared dark clouds	1.3 line	11	5.0
AW572	Wyrowski, F. Gibb, A. Mundy, L.	Maryland Maryland Maryland	Temperature structure of high mass protostellar candidates	1.3 line	4	6.0
AY124	Young Owl, R.C.	UCLA	Circumstellar environment of Herbig Ae Stars	0.7, 3.6	12, 14	16.0
AZ136	Zhao, J-H. McGary, R.S. Goss, M. Bower, G.	Cfa Cfa NRAO-Socorro Calif.-Berkeley	VLA monitoring the 106-day cycle of Sgr A	0.7, 1.3, 2	1, 9, 18, 25	5.5
BC111	Cotton, W.D. Mennesson, B. Vlemmings, W. Perrin, G. Coude du Foresto, V. Chagnon, G. Diamond, P.J. van Langevelde, H.J. Ridgway, S. Morel, S. Traub, W. Carleton, N. Lacasse, M. Waters, R.	NRAO-CV Leiden Leiden Meudon Paris Obs. Paris Obs. Jodrell Bank JIVE NOAO Cfa Cfa Cfa Cfa Amsterdam	Bright O-rich Mira stars	0.7 Single antenna VLBI w/cal flux ratios, AT268,AK509,AR458,AV251	10	18.2
BD079	Diamond, P.J. Kemball, A.J.	Jodrell Bank NRAO-Socorro	TX Cam returns	0.7 Single antenna VLBI w/AK509,AL515	5, 11	10.1
BG113	Gomez, J.L. Marscher, A.P. Marchenko-Jorstad, S Alberdi, A. Agudo, I. Marti, J.M. Aloy, M.A. Ibanez, J.M.	IAA Boston Boston IAA IAA U. Jaen Valencia Valencia	Monitoring superluminal components in 3C120	0.7, 1.3, 2 W/BT58	6	3.0
BG118	Greenhill, L. Chandler, C.J. Diamond, P. Moran, J.M. Reid, M.J.	Cfa NRAO Jodrell Bank Cfa Cfa	SiO maser motions in Orion BN/KL	0.7 Single antenna VLBI W/AD454,Pointing	18	4.3
BH085	Hoffman, I. Goss, M. Brogan, C. Claussen, M.	UNM NRAO-Socorro NRAO-Socorro NRAO-Socorro	1720 MHz OH masers in SNR IC 443	20 Single antenna VLBI W/AL551,AR458,AW564,AW569	1	13.3
BT058	Tinti, S. Dallacasa, D. Fanti, R. Fanti, C. Gregorini, L. Vigotti, M. Stanghellini, C.	Bologna Bologna Bologna Bologna Bologna Bologna Noto	Morphological/spectral study of B3-VLA CSSs	3.6, 6 Single antenna VLBI W/BD79,AC605,AB957,AR458,AT268,BG113	5	24.0

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The average downtime was 5.52%.

The array was scheduled for 96.4% (695.6 hours)

508.1 hours (70.4% of time) for astronomical programs  
111.0 hours (15.4% of time) for tests/calibration  
76.5 hours (10.6% of time) for maintenance

Total 695.6 hours (100.0%) scheduled.

Array was in the D configuration from November 1 through November 30.

Total number of programs was 51.

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

Projects	Hours
AB957/BT58	2.5
AC605/BT58	1.0
AD454/BG118	3.2
AK509/BC111	1.0
AK509/BD79	4.3
AL515/BD79	3.8
AL551/BH85	7.1
AR458/BC111	1.5
AR458/BH85	2.5
AR458/BT58	15.0
AT263/POINTING	2.1
AT268/BC111	8.0
AV251/BC111	2.2
AW564/BH85	3.5
AW569/BH85	0.2
BD79/BT58	0.2
BG113/BT58	2.3
CAL FLUX RATIO/BC111	5.5
POINTING/BG118	0.1
TEST/BT58	3.0

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Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AA264	Andre, P. Bontemps, S. Siebenmorgen, R. Belloche, A. Motte, F.	Saclay Bordeaux ESO Saclay Caltech	Characterizing the evolutionary status of Mid-IR dark globules	3.6 W/BR71	21, 23	9.0
AB0957	Bastian, T.S. Vilmer, N. Gary, D.E. Benz, A.O.	NRAO-Socorro Paris New Jersey Tech ETH	Joint microwave and hard xray imaging of solar flares	0.7, 1.3, 2, 3.6, 6	14, 19, 23, 26	23.0
AB0982	Blundell, K. Dubner, G. Mioduszewski, A. Kassim, N.	Oxford IAFE NRAO-Socorro NRL	Imaging the W50-SS433 system at 74 MHz	400	15	2.0
AB0999	Beck, R. Berkhuijsen, E.M. Horellou, C. Fletcher, A. Shukurov, A.	MPIfR MPIfR Onsala Newcastle Newcastle	Coupling of gas and magnetic fields in M51	3.6	28, 29	22.0
AB1006	Berger, E. Rutledge, R. Bildsten, L. Martin, E. Gizis, J. Basri, G.	Caltech Caltech Calif.-Santa Barbara Hawaii IPAC Calif.-Berkeley	Search for emission from L and late M stars	3.6	8, 12	7.0
AC591	Curiel, S. Girart, J.M. Rege, A.	UNAM Illinois UNAM	First epoch for proper motions of the SiO emission in L1488	0.7	22	2.0
AC605	Claussen, M.J. Wilner, D.J.	NRAO-Socorro CfA	Monitoring continuum emission from TW Hya	2, 3.6, 6, 20	8, 22	7.0
AC606	Cappa, C. Goss, M. van der Hucht, K.A.	IAR NRAO-Socorro Utrecht	Survey of radio continuum emission from Wolf-Rayet stars	3.6	5, 8	8.0
AC610	Ceccarelli, C. Brouillet, N. Castets, A. Jacq, T.	Bordeaux Bordeaux Bordeaux Bordeaux	Ammonia in the hot core of protostar IRAS 16293-2422	1.3 line	5, 6	10.0
AC612	Carilli, C. Petric, A. Bertoldi, F. Menten, K. Omont, A. Cox, P. Djorgovski, G. McMahon, R. Isaak, K.	NRAO-Socorro Columbia MPIfR MPIfR IAP IAP Caltech Cambridge Cambridge	CO emission from two infrared luminous high redshift QSOs	0.7	10, 17, 21, 28	17.0
AF383	Fomalont, E. Kellermann, K. Rossi, P. Shaver, P.	NRAO-CV NRAO-CV MPIE Garching	Chandra Deep Field South	6	1	8.0
AG616	van Gorkom, J. van der Hulst, T. Schiminovich, D. Horellou, C. Black, J.	Columbia Groningen Caltech Onsala Onsala	HI imaging of the radio galaxy Fornax A	20	3, 4	8.0
AH753	Hunter, D. Elmegreen, B. Brinks, E. Westpfahl, D. Nordgren, T. Wilcots, E.	Lowell IBM Guanajuato NMIMT Lowell Wisconsin	Clouds, Porosity, and star formation in normal irregular galaxies	20	18	8.0
AH754	Henkel, C. Peck, A. Menten, K. Neininger, N. Weiss, A. Mauersberger, R. Hagiwara, Y.	MPIfR MPIfR MPIfR Bonn Univ Bonn Univ. IRAM MPIfR	Ammonia in nearby galaxies	1.3	23-27	50.0
AH755	Hameed, S. Young, L.	New Mexico State NMIMT	HI Imaging of early-type spirals	20	5, 31	9.1
AH756	Hyman, S. Lazio, J. Kassim, N.	Sweet Briar NRL NRL	New galactic center composite supernova remnant?	6	2	2.0
AH759	Hagiwara, Y. Diamond, P.	MPIfR Jodrell Bank	Water maser in NGC 6240	1.3 line	1	2.0

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AI088	Ivison, R.J. Papadopoulos, P. Carilli, C. Barvainis, R. Lewis, G.F.	University College Leiden NRAO-Socorro NSF AAO	CO J=1-0 and J=2-1 mapping of the z=3.9 quasar APM 08279+5255	0.7, 1.3	19, 20	17.0
AI093	Ivison, R.J. Greve, T.R. Carilli, C.L. Papadopoulos, P. Lewis, G.F.	University College Edinburgh NRAO-Socorro Leiden AAO	Mapping high z gas rich mergers via CO J=1-0	0.7, 1.3	2, 9, 11	14.0
AJ284	Jura, M. Reid, M.	UCLA CfA	Dust around VY CMa	0.7	2	6.0
AK509	Kulkarni, S.K. Frail, D. Galama, T.J. Bloom, J.S. Berger, E. Harrison, F.A.	Caltech NRAO-Socorro Caltech Caltech Caltech Caltech	Radio afterglows from gamma ray bursts	1,3,4,7,8,12 ,13,15-18,23 ,25,28,30 W/BD79	31.5	
AK532	Kobulnicky, C. Martin, C.	Wisconsin Caltech	NGC 1569, the nearest starburst with a galactic wind	2, 6	30	8.0
AK540	Kliem, B.	Potsdam	VLA, HESSI, and SUMER observations of solar flares	2, 6	15, 22, 27	14.5
AL551	Lim, J. Ho, P.T.P.	Academia Sinica CfA	HI Imaging of Seyfert galaxies: search for tidal interactions	20 line	29	9.5
AL552	Lang, C.C. Goss, M. Yusef-Zadeh, F.	Massachusetts NRAO-Socorro Northwestern	Galactic center snake filament (G359.1-0.2)	3.6, 6	7	8.0
AM699	McGary, R.S. Ho, P.T.P. Coil, A.	CfA CfA Calif.-Berkeley	Mapping hot gas near the galactic center	1.3	1	10.0
AM702	Markovic, T. Owen, F. Eilek, J.	NMIMT NRAO-Socorro NMIMT	Radio halos in Abell Clusters of galaxies	20 W/BR71	5,6,20	15.0
AM704	Mathieu, R.D. Wilner, D. Jensen, E.L.N. Koerner, D.	Wisconsin CfA Swarthmore Pennsylvania	Protostellar disks in the pre-main sequence binary environment	0.7, 3.6	14, 20, 29	20.0
AM706	Mirabel, I.F. Dhawan, V. Duc, P.-A. Rodrigues, I.	Saclay NRAO-Socorro Saclay Saclay	A probable halo compact binary		3, 11	2.0
AN100	Nindos, A. Alissandrakis, C.E.	Ioannina Ioannina	Mapping energetic electrons in solar flares	2, 6 W/BM157	5, 11, 21, 25, 30	26.5
AR458	Rupen, M.P. Mioduszewski, A.J. Dhawan, V.	NRAO-Socorro NRAO-Socorro NRAO-Socorro	Radio and x-ray activity in Galactic black hole X-ray transients	0.7, 1.3, 2, 3.6, 6, 20 W/BD79	1,2,4,8,9,12 ,14,17-19,22 ,26,27,29	22.8
AR462	Roberts, M. Gaensler, B. Romani, R.	McGill MIT Stanford	Two potential pulsar wind nebulae associated with gamma ray sources	6, 20	4	3.0
AR467	Ratay, D.L. Gottesman, S.T.	Florida Florida	High sensitivity observations of the barred spiral NGC 1784	20 line	6, 7	12.0
AR472	Roshi, D.A. Goss, M. Anantharamaiah, K.R.	NRAO-GB NRAO-Socorro Raman	W48A: are there compact CII and SII regions?	2, 3.6, 6 line	13, 21	14.0
AT258	Thilker, D.A. Elmegreen, B.G. Efremov, Y.N. Larsen, S.	NRAO-Socorro IBM Sternberg Copenhagen	HI imaging of giant bubbles and arcs in NGC 6946	20 line	15	2.0
AW563	Williams, P.M. Dougherty, S.M.	Edinburgh DRAO	Continuing monitoring of WR 125	3.6, 6, 20	12	1.5
AW564	Willson, R.F.	Tufts	Solar flares	1.3, 2, 3.6	4, 6, 7, 9	23.5
AW568	Wilcots, E. van Gorkom, J. Zabludoff, A. Mulchaey, J. Williams, B.	Wisconsin Columbia Wisconsin Carnegie Obs. Delaware	Evolution of HI content of poor groups of galaxies	20 line	13, 14, 15	19.5
AW571	Wyrowski, F. Carey, S. Egan, M. Feldman, P. Redman, R.	Maryland Boston AFRL NRC Canada NRC Canada	Temperature structure of infrared dark clouds	1.3 line	22, 27	15.9

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Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AW572	Wyrowski, F. Gibb, A. Mundy, L.	Maryland Maryland Maryland	Temperature structure of high mass protostellar candidates	1.3 line	26	6.0
AY125	Yusef-Zadeh, F. Roberts, D. Wardle, M.	Northwestern Northwestern Sydney	OH maser emission and OH absorption towards W28	20 line	6	3.0
AY127	Yusef-Zadeh, F. Reid, M. Roberts, D.	Northwestern CfA Northwestern	Search for SiO masers in the arches and the quintuplet clusters	0.7 line	12	3.5
AZ133	van Zee, L. Schade, D. Cote, S.	DAO DAO NRC	HI in galaxies with deep HAlpha imaging	20 line	7	8.0
AZ136	Zhao, J-H. McGary, R.S. Goss, M. Bower, G.	CFA Cfa NRAO-Socorro Calif.-Berkeley	VLA monitoring the 106-day cycle of Sgr A	0.7, 1.3, 2	2, 11, 18, 25	5.5
BD079	Diamond, P.J. Kemball, A.J.	Jodrell Bank NRAO-Socorro	TX Cam returns	0.7 Single antenna VLBI w/test, AK509, move/op, AR458, BG 113	11	8.1
BG113	Gomez, J.L. Marscher, A.P. Marchenko-Jorstad, S. Alberdi, A. Agudo, I. Marti, J.M. Aloy, M.A. Ibanez, J.M.	IAA Boston Boston IAA IAA Jaen Valencia Valencia	Monitoring superluminal components in 3C120	0.7, 1.3, 2 w/BD79	12	3.9
BG118	Greenhill, L. Chandler, C.J. Diamond, P. Moran, J.M. Reid, M.J.	CfA NRAO-Socorro Jodrell Bank Cfa Cfa	SiO maser motions in Orion BN/KL	0.7 Single antenna VLBI w/AM702, AA264	21	8.0
BM157	Mantovani, F. Junor, W. Saikia, D.J. Salter, C.J.	Bologna New Mexico NCRA Arecibo	Polarization and rotation measure in CSS QSOs	3.6, 6 Single antenna VLBI w/AN100, AC610, Test, AM702	5	12.0
BR071	Rathner, M.I. Bartel, N. Bietenholz, M.F. Lebach, D.E. Lestrade, J-F. Ransom, R.R. Shapiro, I.I.	CfA York York Cfa Meudon York Cfa	Astrometry of HR 8703 in 2001 for the gravity probe-b mission	2, 3.6, 6 Phased array VLBI	19	12.0
W323	Jones, D.L. Preston, R.A. Meier, D.L. Murphy, D.W. Lister, M. Piner, B.G.	JPL JPL JPL JPL NRAO-CV JPL	Cores of compact sources AO 0235+164 and 0735+17B	6, 20	18	11.7
	Staff	NRAO	Baselines, Pointing, Delays Maintenance Move/Operations Software General tests			54.9 56.5 4.1 36.0 42.5

The average downtime was 3.45%.

The array was scheduled for 100.0% (747.1 hours)  
555.8 hours (74.4% of time) for astronomical programs  
98.8 hours (13.2% of time) for tests/calibration  
92.5 hours (12.4% of time) for maintenance  
Total 747.1 hours (100.0%) scheduled.

Array was in the DnC configuration from October 1 through October 9

Array was in the D configuration from October 9 through October 31.

Total number of programs was 50.

The following independent proposals shared simultaneous observing time (29.1 hours total simultaneous observing):

Projects	Hours
AA264/BR71	6.8
AC610/BM157	5.0
AK509/bd79	1.0
AM702/BM157	1.8
AM702/BR71	1.2
AN100/BM157	2.2
AR458/BD79	0.9
BG113/BD79	1.7
Move/Op/BD79	4.1
Test/BD79	1.4
Test/BM157	3.0

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Program	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AB0994	Berger, E.	Caltech	Multi-frequency monitoring of the Brown Dwarf LP944-20	1.3, 3.6, 6, 20	13	4.6
AB0995	Brogan, C.L. Goss, W.M. Claussen, M.J. Hoffman, I.	NRAO NRAO-Socorro NRAO-Socorro UNM	OH Maser search toward supernova remnant HB21	20 line	9	8.0
AB1004	Blundell, K. Perley, R. Rawlings, S. Kassim, N. Lazio, T.J.W. Owen, F.	Oxford NRAO-Socorro Oxford NRL NRL NRAO-Socorro	The very large, steep spectrum outer structure of a FR II radiogalaxy	90	1	8.0
AB1006	Berger, E. Rutledge, R. Bildsten, L. Martin, E. Gizis, J. Basri, G.	Caltech Caltech Calif.-Santa Barbara Hawaii IPAC Calif.-Berkeley	Search for emission from L and late M stars	3.6	23	11.5
AC582	Clarke, T.	NRAO	Faraday study of galaxy cluster core sources	6	3	9.0
AC583	Clarke, T. Enslin, T. Kassim, N. Neumann, D.N.	NRAO MPIA NRL Saclay	Low frequency observations of diffuse emission in Abell 2256	90	8	4.5
AC598	Cohen, A. Enslin, T. Kassim, N.	NRL MPIA NRL	Possible relic in galaxy cluster AWM 4	90	6	4.0
AC601	Chandler, C. Low, F.	NRAO Arizona	Nature of dust in the debris around HD 98800	0.7	22	8.0
AC603	Coziol, R. Brinks, E. Bravo-Alfaro, H. Lopez-Cruz, O. Iovino, A. de Carvalho, R.	Guanajuato Guanajuato Guanajuato Guanajuato Brera Obs. Nat. Brasil	Gas in compact galaxy groups	20 line	22	3.5
AC605	Claussen, M.J. Wilner, D.J.	NRAO-Socorro CfA	Monitoring continuum emission from TW Hya	2, 3.6, 6, 20	24	6.0
AC606	Cappa, C. Goss, W.M. van der Hucht, K.A.	IAR NRAO-Socorro SRON (Utrecht)	Survey of radio continuum emission from Wolf-Rayet stars	3.6	15	6.0
AD441	Dwarakanath, K.S. Kassim, N. Owen, F. Perley, R.A.	Raman NRL NRAO-Socorro NRAO-Socorro	The radio halo of Virgo A at 74 MHz		7	5.0
AD452	Dahlem, M. Ehle, M.	ESO-Chile ESA	HI Observations of galaxies with radio halos	20 line	26, 30	8.0
AD456	Doi, A. Kameno, S. Kohno, K.	NAO-Mitaka NAO-Nobeyama NAO-Nobeyama	Radio quiet AGN	1.3	28, 28	5.5
ADHOC	Dhawan, V.	NRAO-Socorro	Adhoc Proposal One		11	1.6
ADHOC	Ivison, R.	IoA	Adhoc Proposal Two		17	1.0
AE145	Eyres, S.P.S. Zijlstra, A. Kurtz, D.W. Tyne, V.H. Evans, A. Smalley, B.	Central Lancashire Manchester UMIST Central Lancashire Keele Keele Keele	Planetary nebula around V4334 Sgr	2, 6 W/BM157	29	8.0
AF370	Falcke, H. Brunthaler, A. Bower, G. Aller, M. Aller, H. Terasranta, H.	MPIfR MPIfR Calif.-Berkeley Michigan Michigan Metsahovi	III Zw 2, a superluminal jet in a spiral galaxy	0.7, 1.3, 2, 3.6, 20, 90	13	1.1
AF386	Fish, V.L. Reid, M.J.	CfA CfA	Ammonia absorption in HII regions	1.3 line	27	4.1
AG592	van Gorkom, J. Bravo-Alfaro, H. Dwarakanath, K. Guhathakurta, P. Poggianti, B. Schiminovich, D. Valluri, M. Verheijen, M. Wilcots, E. Zabludoff, A.	Columbia Guanajuato Raman SC Santa Cruz Padova CalTech Rutgers NRAO-Socorro Wisconsin Wisconsin	HI survey of clusters in the local universe	line	2, 3, 4, 5	28.8

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Program	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AG604	Giovannini, G. Brunetti, G. Feretti, L. Govoni, F. Setti, G.	Bologna Bologna Bologna Bologna Bologna	A665 and A2163 halo sources	90	6	7.0
AG612	Quedel, M. Smith, K. Beasley, A.J. Audard, M. Benz, A.O. Mewe, R. Brinkman, A. Savin, D.	Scherrer ETH Caltech-OVRO Paul Scherrer ETH Utrecht Utrecht Columbia	X-ray and radio emission from stellar coronae	3.6, 6 w/move/op	10	13.0
AG617	Guerra, E.J. Myers, S.T. Partridge, R.B.	Rowan NRAO-Socorro Haverford	Single epoch radio spectral energy distributions from 1.4 GHz to 23 GHz	1.3, 3.6, 6, 20 w/BD79, BM126, BG118	14, 15, 19, 21	36.3
AH707	Helfand, D.J. Becker, R.H. White, R.L. Warwick, R.	Columbia Calif.-Davis STSci Leicester	A new x-ray/radio image of the milky way	20 line	2	7.0
AH741	Ho, P.T.P. Keto, E.R.	CfA CfA	Hot molecular cloud cores in W31	1.3 Line	22, 23	12.0
AH745	Hofner, P. Kurtz, S. Araya, E.	Puerto Rico UNAM Puerto Rico	Dust continuum distribution in hot molecular cores	0.7 w/WM157	1, 7	6.6
AH747	Helfand, D.J. Becker, R.H. White, R.L.	Columbia Calif.-Davis STSci	A P-band galactic plane survey	90	1	4.0
AH751	Hollis, J.M. Jewell, P.R. Palmer, P. Pedenly, J.A. Snyder, L.E. Lovas, F.J.	NASA-GSFC NRAO-GB Chicago NASA-GSFC Illinois Illinois	Search for interstellar glycine	0.7 w/WM126, WM157	16, 18, 24, 27, 28, 29	35.5
AH754	Henkel, C. Peck, A. Menten, K. Neininger, N. Weiss, A. Mauersberger, R. Hagiwara, Y.	MPIfR MPIfR MPIfR Bonn Univ Bonn Univ. IRAM MPIfR	Ammonia in nearby galaxies	1.3	29	5.5
AK509	Kulkarni, S.K. Frail, D. Galama, T.J. Bloom, J.S. Berger, E. Harrison, F.A.	Caltech NRAO-Socorro Caltech Caltech Caltech Caltech	Radio afterglows from gamma ray bursts		1-3, 10, 12, 13 , 16-18, 20, 21 , 26-29 w/WM126, WM157	25.5
AK534	Kassim, N.E. Lazio, J. Anantharamaiah, K. Nord, M.	NRL NRL Raman UNM	74 MHz imaging of the galactic center		4	4.0
AL542	Lim, J. Ho, P.T.P.	Academia Sinica CfA	HI Imaging of Seyfert galaxies	20 line w/WM157	6, 8,	23.3
AL546	Lang, C.C. Kim, S. Goss, W.M. Zhao, J.H.	Massachusetts CFA NRAO-Socorro CFA	HI absorption mosaic of the galactic center region	20 line	30	8.0
AL549	Lim, J. Liang, M-C. Choi, M. Su, Y-N.	Academia Sinica Academia Sinica Academia Sinica NCU (Taiwan)	Imaging the dust disks of Vega type stars	0.7	25	1.0
AM665	McHardy, I. Uttley, P.	Southampton Sothampton	Radio variability of the Seyfert galaxy NGC 4051	3.6, 6	3	1.5
AM685	Mullan, D. Lazio, J.	Delaware NRL	Flare star ejecta as the sources of extreme scattering events	20	3, 8, 10	4.0
AM687	Monnier, J.D. Greenhill, L. Tuthill, P.G. Danchi, W.C.	CfA CfA Sydney NASA/GSFC	Monitoring the WR 112 binary system	0.7, 1.3, 2, 3.6, 6, 20	13	6.0
AM701	McKean, J.P. Browne, I.W.A. Jackson, N.J. Rusin, D.	Jodrell Bank Jodrell Bank Jodrell Bank Pennsylvania	Spectral energy distributions of faint flat-spectrum radio galaxies	1.3, 2, 3.6, 6 w/BD79	14	5.3

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Program	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AM703	Muno, M. Belloni, T. Dhawan, V. Rupen, M.	MIT - CSR Brera NRAO-Socorro NRAO-Socorro	Searching for compact jets in neutron star x-ray binaries	1.3, 3.6, 6, 20	25	5.0
AN102	Nord, M. Kassim, N. Lazio, J. Duric, N. Falcke, H.	UNM NRL NRL New Mexico MPIfR	HII regions in absorption		28	13.0
A0159	Owen, F. O'Dea, C. van der Marel, R. Laine, S. Postman, M. Lauer, T.	NRAO-Socorro STScI STScI STScI STScI NOAO	Radio sources and black holes in brightest cluster galaxies	20	10	4.0
A0160	Osten, R.A. Brown, A. Ambruster, C. Linsky, J. Rector, T. Drake, S.	Colorado Colorado Villanova Colorado NOAO USRA-GFSC	X-ray and radio observations of the red dwarf flare star EV Lac	2, 3.6, 6 W/BM126, BG118	18, 19	23.5
AP428	Pratap, P.	Haystack	44 GHz methanol masers in NGC 7538	0.7 Line	17	6.1
AQ014	Qi, C. Zhang, Q. Blake, G.	CfA CfA Caltech	Ammonia in protoplanetary disks	1.3 Line	21	6.0
AR458	Rupen, M.P. Mioduszewski, A.J. Ohawan, V.	NRAO-Socorro Sydney NRAO-Socorro	Radio and x-ray activity in Galactic black hole X-ray transients	0.7, 1.3, 2, 3.6, 6, 20 W/BD79, BM126	6, 8, 9, 12, 13- 18, 20-24, 25, 26	27.9
AR463	Roberts, M. Kaspi, V.	McGill McGill	Expansion of the shell and pulsar wind nebula of SNR G11.2-0.3	2, 6, 20	24	8.0
AR471	Ramesh, B. Mohan, N.R. Anantharamaiah, K.R.	Raman Raman Raman	Mapping the molecular density structure in NGC 253: HC3N	0.7 Line	22, 23, 24	15.5
AS714	Schindler, S. Feretti, L. Wambsganss, J. Schwone, A. de Filippis, B. Castillo-Morales, A.	John Moores Bologna Potsdam Potsdam John Moores John Moores	Distant galaxy cluster RBS 797	3.6, 20	25	6.1
AT261	van der Tak, F. Menten, K.	MPIfR MPIfR	Small scale distribution of dust around massive protostars		9	8.0
AW362	White, S.	Maryland	The stellar activity cycle on active stars	3.6, 6, 20	24, 28	3.0
AW559	White, S. Kundu, M. Garairov, V.	Maryland Maryland Maryland	Microwave, millimeter and hard x-ray observations of solar flares	2, 6	9	10.0
AW566	Wu, Y. Zhang, Q. Huang, M. Wang, J. Wu, J.	Beijing CfA CfA Beijing Beijing	Structures in protoplanetary disks	0.7, 3.6, 6	30	1.6
AZ129	Zhao, J.-H. Bower, G. Goss, W.M. McGary, R.S.	CFA Calif.-Berkeley NRAO-Socorro Cfa	VLA Monitoring Sgr A*	0.7, 1.3, 2	1, 8, 25, 27	4.0
AZ134	van Zee, L. Salzer, J.J. Skillman, E.D.	DAO Wesleyan Minnesota	Kinematics of gas rich blue compact dwarf galaxies	20 line	1, 1, 8	18.5
BD057	Diamond, P.J.	Jodrell Bank	Continuation of the VLBA monitoring of SiO masers around TX Cam		24	2.5
BD079	Diamond, P.J. Kemball, A.J.	Jodrell Bank NRAO-Socorro	TX Cam returns	0.7 Single antenna VLBI W/AM701, AR458, AG617	14	8.0
BG113	Gomez, J.L. Marscher, A.P. Marchenko-Jorstad, S. Alberdi, A. Agudo, I. Marti, J.M. Aloy, M.A. Ibanez, J.M.	IAA Boston Boston University IAA IAA U. Jaen Valencia Valencia	Monitoring superluminal components in 3C120	0.7, 1.3, 2	10	2.0

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Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
BG118	Greenhill, L. Chandler, C.J. Diamond, P. Moran, J.M. Reid, M.J.	CfA NRAO Jodrell Bank CfA CfA	SiO maser motions in Orion BN/KL	0.7 Single antenna VLBI	19	8.0
BM126	Mutoh, M. Asada, K. Fujisawa, K. Inoue, M. Kameno, S.	NAO NAO NAO NAO NAO		17-22 w/AR459,move,op,AK509,AH751		58.8
BM157	Mantovani, F. Junior, W. Saikia, D.J. Salter, C.J.	Bologna New Mexico NCRA-Pune Arecibo	Polarization and rotation measure in CSS QSOs	3.6, 6 Single antenna VLBI w/AH745,AL542,AH751,AK509,AE1 45	7, 29	21.8
BM159	Momjian, E. Romney, J.D. Carilli, C. Troland, T.	Kentucky/NRAO NRAO-Socorro NRAO-Socorro Kentucky	VLBA observations of the ultra luminous infrared galaxies	20 Phased array VLBI	14	11.9
W418	Gurvits, L.I. Dennett-Thorpe, J. de Bruyn, A.G.	JIVE Groningen NFRA	Extremely variable IDV source J1819+3845	6 Phased array VLBI	16, 17	13.3
	Staff	NRAO	Baselines, Pointing, Delays Maintenance Move/Operations Software General tests			43.1 42.1 32.2 28.3 45.2

The average downtime was 3.8%.

The array was scheduled for 100.0% (722.0 hours)  
536.9 hours (74.4% of time) for astronomical programs  
114.7 hours (15.9% of time) for tests/calibration  
70.4 hours (9.8% of time) for maintenance  
Total 722.0 hours (100.0%) scheduled.

Array was in the C configuration from September 1 through September 10 .

Array was in the DnC configuration from September 10 through September 30.

Total number of programs was 62 .

The following independent proposals shared simultaneous observing time (101.4 hours total simultaneous observing):

Projects	Hours
AC601/BM126	1.0
AE145/BM157	7.4
AG612/MOVE/OP	7.5
AG617/BD79	2.9
AG617/BG118	3.2
AG617/BM126	2.3
AH741/BM126	5.0
AH745/BM157	1.7
AH751/BM126	3.2
AH751/BM157	0.6
AK509/BM126	2.0
AK509/BM126	1.5
AK509/BM157	4.0
AL542/BM157	5.2
AM701/BD79	4.9
AO160/BG118	3.8
AO160/BM126	8.2
AO160/BM126	9.5
AR458/BD79	0.2
AR458/BM126	0.9
AR458/BM126	1.2
AR458/BM126	1.2
AR458/BM126	0.1
Baseline/BM126	5.0
Move/op/BM126	4.0
Move/op/BM126	5.2
Pointing/BM126	4.5
Startup/BM126	5.2

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Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AB0956	Benz, A.O. Bastian, T.S. Mann, G. Klein, K.L. Gary, D.E.	ETH NRAO-Socorro API Postdam Paris Obs. New Jersey Tech	Electron beam emission in the solar corona	20 W/BH86	3, 6, 11, 14, 17, 19	31.0
AB0982	Blundell, K. Dubner, G. Mioduszewski, A. Kassim, N.	Oxford IAFE Sydney NRL	Imaging the W50-SS433 system at 74 MHz		25	3.0
AB0994	Berger, E.	Caltech	Multi-frequency monitoring of the Brown Dwarf LP944-20	1.3, 3.6, 6, 20	5, 18, 27	5.5
AB0996	Bowen, D.V. Brinks, E. Tripp, T.M. Jenkins, E.B. Huchtmeier, W.	Princeton Obs. Guanajuato Princeton Obs. Princeton Obs. MPIfR	h LSB Galaxy SBS 1543+593: a nearby damped Lyman absorber	20 line	13	8.1
AB0998	Bower, G.C. Falcke, H. Brunthaler, A. Mellon, R.	Calif.-Berkeley MPIfR MPIfR Penn State	Linear and circular polarization of M81	1.3, 2, 3.6, 6	4, 16, 18, 25, 3 0	8.5
AB0999	Beck, R. Berkhuijsen, E.M. Horellou, C. Fletcher, A. Shukurov, A.	MPIfR MPIfR Onsala Newcastle Newcastle	Coupling of gas and magnetic fields in M51	6 w/move/op	18, 26	16.0
AB1001	Bergman, P. Kerschbaum, F. Olofsson, H.	Onsala Vienna Univ. Stockholm	Circumstellar envelope of AGB Star RV Boo	0.7	24	10.0
AB1002	Boboltz, D.A. Claussen, M.J.	USNO NRAO-Socorro	SiO thermal and maser emission in long period variables	0.7 line	4, 8, 10	7.0
AB1003	Beck, R. Laine, S. Shukurov, A. Sokoloff, D.	MPIfR STScI Newcastle Moscow U.	Kiloparsec scale jet in the barred spiral NGC 7479	3.6, 6 w/BG118	1, 23	16.0
AB1004	Blundell, K. Perley, R. Rawlings, S. Kassim, N. Lazio, T.J.W. Owen, F.	Oxford NRAO-Socorro Oxford NRL NRL NRAO-Socorro	The very large, steep spectrum outer structure of a FR II radiogalaxy	90	24	6.0
AC524	Cartwright, J.K. Taylor, G.B. Readhead, A.C.S. Pearson, T.J.	Caltech NRAO-Socorro Caltech CalTech	Polarization monitoring observations of 3C273	0.7, 1.3	4, 12, 31	6.5
AC582	Clarke, T.	NRAO	Faraday study of galaxy cluster core sources	6	1	4.0
AC583	Clarke, T. Enslin, T. Kassim, N. Neumann, D.N.	NRAO MPIA NRL Saclay	Low frequency observations of diffuse emission in Abell 2256	90	1	1.5
AF383	Fomalont, E. Kellermann, K. Rossi, P. Shaver, P.	NRAO-CV NRAO-CV MPIE ESO-Garching	Chandra Deep Field South	6, 20	11, 12	16.0
AG592	van Gorkom, J. Bravo-Alfaro, H. Dwarakanath, K. Guhathakurta, P. Poggianti, B. Schiminovich, D. Valluri, M. Verheijen, M. Wilcots, E. Zabludoff, A.	Columbia Guanajuato Raman SC Santa Cruz Padova CalTech Rutgers NRAO-Socorro Wisconsin Wisconsin	HI survey of clusters in the local universe	line w/BD69, test	7, 13-16, 19, 2 0, 22, 25-28	74.5
AG604	Giovannini, G. Brunetti, G. Feretti, L. Govoni, F. Setti, G.	Bologna Bologna Bologna Bologna Bologna	A665 and A2163 halo sources	90	17	7.0

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Program	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AG605	Gaensler, B. Kassim, N. Lazio, J. Slane, P. Schulz, N. Safi-Harb, S. Harrus, I.	MIT NRL NRL CFA MIT Manitoba NASA-GSFC	Deep search for a shell around the Crab-like SNR G21.5-0.9	90	30	4.0
AG609	Giovanelli, R. Haynes, M.P. Spekkens, K. Valotto, C.	Cornell Cornell Cornell Cornell	Fast rotators - dark matter or compact massive nuclei?	20 line	30	6.0
AG611	Gentile, G. Kalberla, P. Klein, U. Salucci, P. Borriello, A.	Bonn Bonn Univ Bonn Univ. Trieste Trieste	HI rotation curves of galaxies with optical rotation curves	20 line	17, 17	16.0
AH685	Haarsma, D.B. Hewitt, J. Langston, G. Moore, C.	Calvin College MIT NRAO-GB Groningen	Time delay monitoring of gravitational lens 2016+112	3.6, 6	27	1.5
AH707	Helfand, D.J. Becker, R.H. White, R.L. Warwick, R.	Columbia Calif.-Davis STScI Leicester	A new x-ray/radio image of the milky way	20 line w/test	14, 19, 21	21.0
AH744	Harris, D.E. Krawczynski, H. Kassim, N. Katz-Stone, D. Lane, W.	CfA Yale NRL USNA Groningen	Jet-intracluster medium interactions of radio galaxy 3C 129	20 w/BG69	16	4.5
AH745	Hofner, P. Kurtz, S. Araya, E.	Puerto Rico UNAM Puerto Rico	Dust continuum distribution in hot molecular cores	0.7	31	6.5
AH746	Healy, K.R. Claussen, M. Hester, J.	Arizona State NRAO-Socorro Arizona State	7mm observations of protostellar envelopes in M16	0.7	16, 18	10.0
AH759	Hagiwara, Y. Diamond, P.	MPIfR Jodrell Bank	Water maser in NGC 6240	line	5	1.5
AI088	Ivison, R.J. Papadopoulos, P. Carilli, C. Barvainis, R. Lewis, G.F.	University College Leiden NRAO-Socorro NSF AAO	CO J=1-0 and J=2-1 mapping of the z=3.9 quasar APM 08279+5255	1.3	20	8.0
AI1093	Ivison, R.J. Greve, T.R. Carilli, C.L. Papadopoulos, P. Lewis, G.F.	University College Edinburgh NRAO-Socorro Leiden AAO	Mapping high z gas rich mergers via CO J=1-0	0.7, 1.3	2, 7, 12, 14	21.6
AJ283	Johnston-Hollitt, M. Clarke, T.	ATNF NRAO	High resolution observations of the radio relic in 0917+75	20 w/BG118	24, 31	12.0
AK509	Kulkarni, S.K. Frail, D. Galama, T.J. Bloom, J.S. Berger, E. Harrison, F.A.	Caltech NRAO-Socorro Caltech Caltech Caltech Caltech	Radio afterglows from gamma ray bursts	3, 4, 6, 13, 14, 16, 18, 19, 24- 27, 29 w/BG118	23.0	
AK533	Kempner, J. Sarazin, C. Rudnick, L.	Virginia Virginia Minnesota	Cluster radio relics discovered in WENSS	20, 90	6	4.0
AK536	Kern, J. Hankins, T. Dickerson, J.	NMIMT NMIMT NMTech	Dual frequency observations of the Vela pulsar	2, 3.6, 6 HTRP	13, 30	3.4
AK539	Kern, J. Hankins, T. Dickerson, J.	NMIMT NMIMT NMTech	Notches in the average profile of pulsar PSR 1919+21	HTRP	30, 31	3.5
AL529	Lacey, C. Kassim, N. Dyer, K. Brogan, C. Dwarakanath, K. Anantharamaiah, K.R. Bhatnagar, S.	NRL NRL NCSU NRAO Raman Raman NCRA-Pune	Low frequency observations of galactic SNRs	90	27	3.5
AL535	Lim, J. Ho, P.T.P.	Academia Sinica CfA	HI Environment of low redshift QSOs	20	6	4.0

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Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AL542	Lim, J. Ho, P.T.P.	Academia Sinica CfA	H I Imaging of Seyfert galaxies	20 line	1, 30	9.5
AM665	McHardy, I. Uttley, P.	Southampton Southampton	Radio variability of the Seyfert galaxy NGC 4051	3.6, 6	10	1.0
AM671	Muxlow, T. Pedlar, A. Wills, K.A. McDonald, A.	Jodrell Bank Jodrell Bank Sheffield U. Manchester	Starburst galaxy M82	2	26, 29	8.0
AM674	Mohan, N.R. Kurtz, S. Anantharamaiah, K.R.	Raman UNAM Raman	Extended emission around ultracompact HII regions	1.3, 6	10	9.5
AM685	Mullan, D. Lazio, J.	Delaware NRL	Flare star ejecta as the sources of extreme scattering events	20	5, 10, 19, 21, 27, 31	6.0
AM688	Myers, S.T. Brogan, C.	NRAO-Socorro NRAO	Survey of circular polarization in AGN	3.6, 6, 20	19	3.5
AM690	Muno, M.P. Remillard, R. Dhawan, V. Pooley, G. Morgan, E.	MIT - CSR MIT NRAO-Socorro Cambridge MIT	Coincident VLA/Chandra observations of GRS 1915+105	1.3, 3.6, 20	4	12.0
AM694	Muhle, S. Klein, U. Wilcots, E. Duric, N. Huttenmeister, S.	Bonn Univ. Bonn Univ. Wisconsin New Mexico Astronomical Inst.	Polarization study of the post starburst dwarf galaxy NGC 1569	6	9, 10	22.0
AN095	Neff, S.G. Ulvestad, J.	NASA-GSFC NRAO-Socorro	Star formation in merging galaxies: an age ordered sequence	3.6, 6	25	4.0
AR440	Rudnick, L. Young, A. Makishima, K. Tshiro, M. Iyomoto, N. Kassim, N. Worrall, D.	Minnesota Minnesota Tokyo Univ Tokyo Toyko NRL Bristol	Radio lobe physics - radio spectra and inverse compton x-rays	20, 90	4, 5, 5	22.5
AR441	Rudnick, L. Young, A. Kassim, N. Slee, O.B. Sarazin, C. Andernach, H. Roy, A.	Minnesota Minnesota NRL ATNF Virginia Guanajuato MPIfR	Cluster "relic" physics - spectral and x-ray studies	6, 20, 90	2, 9, 30	23.5
AR458	Rupen, M.P. Mioduszewski, A.J. Dhawan, V.	NRAO-Socorro Sydney NRAO-Socorro	Radio and x-ray activity in Galactic black hole X-ray transients	0.7, 1.3, 2, 3.6, 6, 20	2, 8, 15, 25, 29 , 30	12.1
AR463	Roberts, M. Kaspi, V.	McGill McGill	Expansion of the shell and pulsar wind nebula of SNR G11.2-0.3	2, 6, 20, 90	3 w/BC111	8.5
AS701	Sokoloski, J.L. Kaiser, C. Charles, P.A.	Southampton MPIA-Garching Southampton	Symbiotic binaries during outburst	3.6, 6, 20	9	3.0
AS712	Sewilo, M. Watson, C. Churchwell, E. Goss, M. Kurtz, S. Hofner, P.	Wisconsin Wisconsin Wisconsin NRAO-Socorro UNAM Puerto Rico	Search for broad line HII regions	0.7 line w/BH86	11, 17	10.5
AT258	Thilker, D.A. Elmegreen, B.G. Efremov, Y.N. Larsen, S.	NRAO-SOC IBM Sternberg Copenhagen	H I imaging of giant bubbles and arcs in NGC 6946	20 line	26	2.0
AW561	Willson, R.F.	Tufts	Solar flares and microflares	1.3, 3.6, 6	5	4.0
AZ129	Zhao, J.-H. Bower, G. Goss, W.M. McGary, R.S.	CFA Calif.-Berkeley NRAO-Socorro Cfa	VLA Monitoring Sgr A*	0.7, 1.3, 2	5, 12, 23, 30	4.0
AZ133	van Zee, L. Schade, D. Cote, S.	DAO DAO NRC	H I in galaxies with deep HAlpha imaging	20 line	20	8.0
AZ134	van Zee, L. Salzer, J.J. Skillman, E.D.	DAO Wesleyan Minnesota	Kinematics of gas rich blue compact dwarf galaxies	20 line	7	6.0

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Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
BC111	Cotton, W.D. Mennesson, B. Vlemmings, W. Perrin, G. Coude du Foresto, V. Chagnon, G. Diamond, P.J. van Langeveld, H.J. Ridgway, S. Morel, S. Traub, W. Carleton, N. Lacasse, M. Waters, R.	NRAO-CV Leiden Leiden Meudon Paris Obs. Paris Obs. Jodrell Bank JIVE NOAO CfA CfA CfA Amsterdam	Bright O-rich Mira stars	0.7 Single antenna VLBI w/AR463	3	4.0
BD069	Diamond, P.J. Kemball, A.J.	Jodrell Bank NRAO-Socorro	TX Cam: the final curtain	0.7 Single antenna VLBI w/AG592, AH744	16	4.3
BG113	Gomez, J.L. Marscher, A.P. Marchenko-Jorstad, S Alberdi, A. Agudo, I. Marti, J.M. Aloy, M.A. Ibanez, J.M.	IAA Boston Boston University IAA IAA U. Jaen Valencia Valencia	Monitoring superluminal components in 3C120	0.7, 1.3, 2	12	2.0
BG118	Greenhill, L. Chandler, C.J. Diamond, P. Moran, J.M. Reid, M.J.	CfA NRAO Jodrell Bank CfA CfA	SiO maser motions in Orion BN/KL	0.7 Single antenna VLBI w/AB1003, AJ283, AK509	24	8.0
BH086	Homan, D. Wardle, J. Roberts, D. Attridge, J.	Brandeis Brandeis Brandeis Haystack	The misaligned jet in PKS 1510-089	6 Single antenna VLBI w/AB956, Test, AS712	11	10.1
W069	Zensus, J.A. Lobanov, A.P. Unwin, S.C. Cohen, M.H.	MPIfR MPIfR JPL Caltech	Jet in quasar 3C345	6 Phased array VLBI	29	8.0
W420	Asada, K. Kameno, S. Inoue, M. Horiuchi, S. Shen, Z.Q. Gabuzda, D.C.	NAO NAO-Nobeyama NAO-Nobeyama NAO ISAS JIVE	Third epoch observation of 3C84	6 Phased array VLBI	20	14.5
	Staff	NRAO	Baselines, Pointing, Delays Maintenance Move/Operations Software Standard Field General tests			40.6 59.4 5.0 23.7 1.0 55.9

The average downtime was 5.3%.

The array was scheduled for 100.0% (746.1 hours)  
577.0 hours (77.3% of time) for astronomical programs  
86.0 hours (11.5% of time) for tests/calibration  
83.1 hours (11.1% of time) for maintenance  
Total 746.1 hours (100.0%) scheduled.

Array was in the C configuration from August 1 through August 31 .

Total number of programs was 61 .

The following independent proposals shared simultaneous observing time (59.4 hours total simultaneous observing):

Projects	Hours
AB1003/BG118	1.5
AB956/BH86	2.9
AB999/MOVE/OP	5.0
AG592/BD69	2.6
AG592/TEST	24.6
AH707/TEST	3.5
AH744/BD69	1.6
AJ283/BG118	6.0
AK509/BG118	0.5
AR463/BC111	4.0
AS712/BH86	5.2
TEST/BH86	2.0

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Program	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AA259	Alexander, P. Clemens, M.	MRAO MRAO	Star formation in galaxies undergoing tidal interaction	20 line	14	5.0
AB0994	Berger, E.	Caltech	Multi-frequency monitoring of the Brown Dwarf LP944-20	1.3, 3.6, 6, 20	29	3.0
AB0998	Bower, G.C. Falcke, H. Brunthaler, A. Mellon, R.	Calif.-Berkeley MPIfR MPIfR Penn State	Linear and circular polarization of M81	1.3, 2, 3.6, 6	4, 19	5.5
AB1000	Brosius, J. Thompson, B. White, S. Gallagher, P. Gary, D.	NASA-GSFC NASA-GSFC Maryland New Jersey Tech New Jersey Tech	Coronal magnetography using radio and EUV data	2, 3.6, 6, 20	12, 15, 17, 19, 23	21.0
AB1013	Braatz, J.	NRAO-GB	Water maser in Mk 1419	1.3 line	2	2.0
AB995	Brogan, C. Claussen, M. Goss, M. Hoffman, I.	NRAO-Socorro NRAO-Socorro NRAO-Socorro UNM	OH Maser search toward supernova remnant HB21	18	20	8.0
AC524	Cartwright, J.K. Taylor, G.B. Readhead, A.C.S. Pearson, T.J.	Caltech NRAO-Socorro Caltech CalTech	Polarization monitoring observations of 3C273	0.7, 1.3	2, 17	4.9
AC582	Clarke, T.	NRAO	Faraday study of galaxy cluster core sources	6	20	12.0
AC583	Clarke, T. Enslin, T. Kassim, N. Neumann, D.N.	NRAO MPIA NRL Saclay	Low frequency observations of diffuse emission in Abell 2256	90	31	8.0
AC589	Clarke, T. Cohen, A. Kassim, N. Enslin, T. Neumann, D.	NRAO NRL NRL MPIA Saclay	Diffuse emission in galaxy cluster Abell 754	90 W/BG118	22	10.5
AC592	Condon, J.J. Jarrett, T.H. Helou, G.	NRAO-CV IPAC IPAC	The second "taffy" galaxy pair	6, 20	27	12.0
AC599	Clarke, T. Owen, F.	NRAO NRAO-Socorro	Search for halo or relics in Butcher-Oemler Cluster Abell 2125	90	26	6.0
AC600	Clarke, T.	NRAO	Faraday study of galaxy cluster core sources	6	13, 27	21.0
AF370	Falcke, H. Brunthaler, A. Bower, G. Aller, M. Aller, H. Terasranta, H.	MPIfR MPIfR Calif.-Berkeley Michigan Michigan Metsahovi	III Zw 2, a superluminal jet in a spiral galaxy	0.7, 1.3, 2, 3.6, 20, 90	5	1.5
AG592	van Gorkom, J. Bravo-Alfaro, H. Dwarakanath, K. Guhathakurta, P. Poggianti, B. Schiminovich, D. Valluri, M. Verheijen, M. Wilcots, E. Zabludoff, A.	Columbia Guanajuato Raman SC Santa Cruz Padova CalTech Rutgers NRAO-Socorro Wisconsin Arizona	HI survey of clusters in the local universe	line W/BB129	1-5, 9-12, 16- 18	96.6
AG594	Gary, D.E. Lee, J. Gallagher, P.T. Bastian, T.	New Jersey Tech New Jersey Tech. New Jersey Tech NRAO-Socorro	Solar active regions with VLA, OVSA, and HESSI	2, 3.6, 6, 20	28, 30	20.0
AG609	Giovanelli, R. Haynes, M.P. Spekkens, K. Valotto, C.	Cornell Cornell Cornell Cornell	Fast rotators - dark matter or compact massive nuclei?	20 line	15	8.0
AG612	Guedel, M. Smith, K. Beasley, A.J. Audard, M. Benz, A.O. Mewe, R. Brinkman, A. Savin, D.	Scherrer ETH Caltech-OVRO Paul Scherrer ETH Utrecht Utrecht Columbia	X-ray and radio emission from stellar coronae	3.6, 6	7	10.0

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Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AG613	Gao, Y. Hibbard, J. Xu, C. Wang, W-H. Lo, K.Y.	IPAC NRAO-CV IPAC Hawaii Academia Sinica	HI in gas rich LIRGs	20 Line W/BG118	21	9.0
AH685	Haarsma, D.B. Hewitt, J. Langston, G. Moore, C.	Calvin College MIT NRAO-GB Groningen	Time delay monitoring of gravitational lens 2016+112	3.6, 6	16, 26	3.5
AH717	Hardcastle, M.J. Sakelliou, I.	Bristol	Jets and their termination in wide angle tail radio galaxies	3.6 W/move/op	19, 29	3.5
AH739	Ho, L.C. Ulvestad, J.S.	Carnegie Obs. NRAO-Socorro	Search for nearby, inverted spectrum, galaxy nuclear sources	0.7, 1.3	16	16.0
AI092	Irwin, J.A. English, J. Saikia, D.J. Spekkens, K.	NCRA/Queen's Manitoba NCRA-Pune Cornell	HI Observations of NGC 2683 and NGC 5433	20 Line	21, 23	12.0
AJ282	Jamrozy, M. Machalski, J.	Jagiellonian Jagiellonian	Detection of radio core in giant radiosource candidates	6	2, 12	3.0
AK509	Kulkarni, S.K. Frail, D. Galama, T.J. Bloom, J.S. Berger, E. Harrison, F.A.	Caltech NRAO-Socorro Caltech Caltech Caltech Caltech	Radio afterglows from gamma ray bursts	2-4, 8, 10-13, 17-20, 22, 24, 26, 30 W/BG118		25.0
AK532	Kobulnicky, C. Martin, C.	Wisconsin Caltech	NGC 1569, the nearest starburst with a galactic wind	2, 6, 20	26	9.0
AL538	Laing, R. Canvin, J. Bridle, A. Cotton, B. Giovannini, G.	Oxford Oxford NRAO-CV NRAO-CV Bologna	Rotation measure of the jets in NGC 315	20	17	6.0
AL541	Lim, J. Ho, P.T.P.	Academia Sinica CfA	HI Imaging of low redshift QSO hosts and their environments	20 line	28, 29, 30	36.0
AL544	Lim, J. Heidt, J. Nilsson, K. Ho, P.T.P.	Academia Sinica Landessternwarte Tuorla (Turku) CfA	HI Imaging of BL Lac hosts and their environments	20 line	1, 2	11.0
AM665	McHardy, I. Uttley, P.	Southampton Southampton	Radio variability of the Seyfert galaxy NGC 4051	3.6, 6	10, 23	2.0
AM685	Mullan, D. Lazio, J.	Delaware NRL	Flare star ejecta as the sources of extreme scattering events	20	1, 8, 13, 21, 26, 29	6.5
AM693	Myers, S.T. Becker, R.H.	NRAO-Socorro Calif.-Davis	C Band mini-survey of NOAO deep wide field	6, 20	3, 4, 8	16.0
AN099	Natta, A. Testi, L. Wilner, D. Shepherd, D.	Arcetri Arcetri CfA NRAO-AOC	Structure of protoplanetary disk around CQ Tau	0.7	21	8.0
A0159	Owen, F. O'Dea, C. van der Marel, R. Laine, S. Postman, M. Lauer, T.	NRAO-Socorro STSci STSci STSci STSci NOAO	Radio sources and black holes in brightest cluster galaxies	20	25	4.0
A0162	O'Neill, K. van Gorkom, J.	Arecibo Columbia	Extended HI envelopes around low surface brightness galaxies	20 line	23, 28	12.0
AR458	Rupen, M.P. Mioduszewski, A.J. Dhawan, V.	NRAO-Socorro Sydney NRAO-Socorro	Radio and x-ray activity in Galactic black hole X-ray transients	0.7, 1.3, 2, 3.6, 6, 20	8, 14, 24	5.5
AR464	Reynoso, E. Hughes, J. Moffett, D.	IAFE (Buenos Aires) Rutgers Fuhrman	Expansion of Tycho's supernova remnant, 3C10	20	10	4.0
AS708	Sridharan, T.K. Wyrowski, F. Zhang, Q. Hunter, T. Beuther, H. Menten, K. Schilke, P.	CfA Maryland CfA CfA MPIfR MPIfR MPIfR	Ammonia disks around high mass young stars	1.3	22	7.0
AS711	Saito, M. Kawabe, R. Beltran, M.T.	CfA NAO-Nobeyama CfA	Continuum observations of low-mass protostars in Taurus	3.6	31	8.0

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Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AS713	Schmitt, H.R. Calzetti, D. Armus, L.	NRAO-SOC STSci Caltech	Local starbursts galaxies	2, 3.6	9	13.5
AT259	Thomas, H. Clemens, M.S. Alexander, P. Green, D.A. Eales, S.A. Dunne, L.	MRAO MRAO MRAO MRAO Cardiff Cardiff	HI observations of galaxies in the JCMT/SCUBA survey	20 line W/BB129	14	18.0
AU072	Uson, J.M. van Gorkom, J.H. Shambrook, A.	NRAO-CV Columbia Calif.-SantaCruz	HI Mapping of Abell 2029	20 line W/BB129	1, 3, 6, 7, 8, 13	49.0
AW560	Willson, R.F.	Tufts	Trans-equatorial loops on the sun	20, 90	1,2,4,6-8,13 -15,29	42.5
AY123	Young, L.	NMT	Elliptical galaxies: radio continuum and star formation	20	20	4.0
AZ129	Zhao, J.-H. Bower, G. Goss, W.M. McGary, R.S.	CFA Calif.-Berkeley NRAO-Socorro Harvard	VLA Monitoring Sgr A*	0.7, 1.3, 2	2, 14, 23	3.0
BB129	Brogan, C. Claussen, M. Goss, M.	NRAO-Socorro NRAO-Socorro NRAO-Socorro	VLBA Zeeman obserations of OH masers associated with SNRs	18	12-14	12.5
BG113	Gomez, J.L. Marscher, A.P. Marchenko-Jorstad, S Alberdi, A. Agudo, I. Marti, J.M. Aloy, M.A. Ibanez, J.M.	IAA Boston Boston University IAA IAA U. Jaen Valencia Valencia	Monitoring superluminal components in 3C120	0.7, 1.3, 2	14	2.0
BG118	Greenhill, L. Chandler, C.J. Diamond, P. Moran, J.M. Reid, M.J.	CfA NRAO Jodrell Bank CfA CfA	SIO maser motions in Orion BN/KL	0.7 Single antenna VLBI W/AG613, AK509, AC589	22	7.9
	Staff	NRAO	Baselines, Pointing, Delays Maintenance Software Standard Field Observation Student observation General tests		6 3	32.0 47.9 31.5 9.0 2.0 14.1

The average downtime was 3.7%.

The array was scheduled for 100.0% (746.1 hours)  
612.2 hours (82.1% of time) for astronomical programs  
55.2 hours (7.4% of time) for tests/calibration  
78.7 hours (10.6% of time) for maintenance  
Total 746.1 hours (100.0%) scheduled.

Array was in the C configuration from July 1 through July 31 .

Total number of programs was 48 .

The following independent proposals shared simultaneous observing time (21.9 hours total simultaneous observing):

Projects	Hours
AC589/BG118	6.4
AG592/BB129	4.0
AG613/BG118	0.6
AH717/MOVE/OP	1.4
AK509/BG118	1.0
AT259/BB129	4.4
AU072/BB129	4.1

## VLA Utilization Report June 2001

Program	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AA260	Andre, P. Belloche, A. Kaas, A. Bontemps, S. Motte, F.	MRAO Saclay Nordic Optical Tel. Bordeaux MPIfR	Characterizing new protostellar condensations in Serpens	3.6	21	4.5
AB0989	Berger, E.	Caltech	Radio survey of bona fide and candidate brown dwarfs	3.6	11, 20	9.5
AB0994	Berger, E.	Caltech	Multi-frequency monitoring of the Brown Dwarf LP944-20	1.3, 3.6, 6, 20	4, 7, 28	10.0
AB0997	Best, P. Rottgering, H. Arts, J. Rengelink, R.	Royal Observatory Leiden Leiden Leiden	Radio sources in the ESO Imaging Survey area	20	16	2.0
AB0998	Bower, G.C. Falcke, H. Brunthaler, A. Mellon, R.	Calif.-Berkeley MPIfR MPIfR Penn State	Linear and circular polarization of M81	1.3, 2, 3.6, 6	15, 30	6.0
AC524	Cartwright, J.K. Taylor, G.B. Readhead, A.C.S. Pearson, T.J.	Caltech NRAO-Socorro Caltech Caltech	Polarization monitoring observations of 3C273	0.7, 1.3	6, 24	4.5
AC572	Clarke, T.	NRAO-Socorro	High resolution faraday study of compact cluster core sources	6, 20	21	4.0
AC591	Curiel, S. Girart, J.M. Raga, A.	UNAM Illinois UNAM	First epoch for proper motions of the SiO emission in L1488	0.7	30	10.5
AC597	Cohen, A.S. Kassim, N. Neumann, D.M. Clarke, T.E. Colafrancesco, S.	NRL NRL Saclay NRAO Rome Obs.	Radio halo and relics in Abell 2657	90	28	4.5
AF370	Falcke, H. Brunthaler, A. Bower, G. Aller, M. Aller, H. Terasranta, H.	MPIfR MPIfR Calif.-Berkeley Michigan Michigan Metsahovi	III Zw 2, a superluminal jet in a spiral galaxy	0.7, 1.3, 2, 3.6, 20, 90	18	1.0
AF383	Fomalont, E. Kellermann, K. Rossi, P. Shaver, P.	NRAO-CV NRAO-CV MPIE ESO-Garching	Chandra Deep Field South	6, 20	...	57.0
AF384	Fender, R.P. Jonker, P.G. Rupen, M.P. van der Klis, M. Homan, J. Mendez, M.	Amsterdam Amsterdam NRAO-Socorro Amsterdam Amsterdam La Plata Obs.	RXTE and VLA observations of the Atoll source 4U 1728-34	3.6, 6	1, 3, 5, 7, 9	10.0
AG592	van Gorkom, J. Bravo-Alfaro, H. Dwarakanath, K. Guhathakurta, P. Poggianti, B. Schiminovich, D. Valluri, M. Verheijen, M. Wilcots, E. Zabludoff, A.	Columbia Guanajuato Raman Calif.-Santa Cruz Padova Caltech Rutgers Wisconsin Wisconsin Arizona	HI survey of clusters in the local universe	20 line	30	4.0
AG610	Gopal-Krishna Wisotzki, L. Bhatnagar, S. Stalin, C.S.	NCRA Potsdam NCRA UPSO	Radio continuum from Hamberg-ESO survey QSOs	3.6, 6, 20	5	2.5
AG614	Gross, C. Lazio, J. Kassim, N. Lane, W. Perley, R. Enslin, T. Kronberg, P.	NRL NRL NRL Groningen NRAO-Socorro MPIA Toronto	Ultra steep spectrum source sources found at 74 MHz	20	24	4.5
AH685	Haarsma, D.B. Hewitt, J. Langston, G. Moore, C.	Calvin College MIT NRAO-GB Groningen	Time delay monitoring of gravitational lens 2016+112	3.6, 6	18	2.0
AH730	Harris, D.E. Siemiginowska, A.	CfA CfA	Radio/x-ray jet in PKS 1127-145	1.3, 6	18	8.0

## VLA Utilization Report June 2001

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AH739	Ho, L.C. Ulvestad, J.S.	Carnegie Obs. NRAO-Socorro	Search for nearby, inverted spectrum, galaxy nuclear sources	0.7, 1.3	6	2.5
AH741	Ho, P.T.P. Keto, E.R.	Cfa Cfa	Hot molecular cloud cores in W31	1.3 line	11, 12	12.5
AH743	Harris, D.E. Vrtilek, J. Ponman, T.	Cfa Cfa Birmingham	Search for ancient radio lobes in HCG 62	20	15	4.0
AK509	Kulkarni, S.K. Frail, D. Galama, T.J. Bloom, J.S. Berger, E. Harrison, F.A.	Caltech NRAO-Socorro Caltech Caltech Caltech Caltech	Radio afterglows from gamma ray bursts		...	46.0
AK536	Kern, J. Hankins, T. Dickerson, J.	NMIMT NMIMT NMIMT	Dual frequency observations of the Vela pulsar	2, 3.6, 6 HTRP	17, 23, 29	4.5
AL511	Lang, C.C. Goss, M.	Massachusetts NRAO-Socorro	The Snake galactic center filament	3.6, 6	18	5.0
AL541	Lim, J. Ho, P.T.P.	Academia Sinica Cfa	HI Imaging of low redshift QSO hosts and their environments	20 line	19, 21	8.0
AL546	Lang, C.C. Kim, S. Goss, M. Zhao, J.H.	Massachusetts Cfa NRAO-Socorro Cfa	HI absorption mosaic of the galactic center region	20 line	16, 20	13.0
AM665	McHardy, I. Uttley, P.	Southampton Southampton	Radio variability of the Seyfert galaxy NGC 4051	3.6, 6	17, 30	2.5
AM681	Miller, N.A. Ledlow, M.J.	Cornell Gemini	Radio continuum survey of the Shapley supercluster	20	16, 17, 19, 21, 22	30.5
AM683	May, J. Gyulbudaghian, A. Rodriguez, L.F.	Chile Byurakan UNAM	Exciting sources of new CO bipolar outflows	3.6	17	2.0
AM685	Mullan, D. Lazio, J.	Delaware NRL	Flare star ejecta as the sources of extreme scattering events	20	2, 10, 18, 25	4.0
AM687	Monnier, J.D. Greenhill, L. Tuthill, P.G. Danchi, W.C.	Cfa Cfa Sydney NASA	Monitoring the WR 112 binary system	0.7, 1.3, 2, 3.6, 6, 20	27	3.0
AM688	Myers, S.T. Brogan, C.	NRAO-Socorro NRAO-Socorro	Survey of circular polarization in AGN	3.6, 6, 20	3, 26	9.5
AM689	Murgia, M. Parma, P. Mack, K.-H. de Ruiter, H.	Bologna Bologna ASTRON Bologna	Imaging of relic radio galaxy candidates	6, 20	2, 15	4.0
AM692	McNamara, B. Carilli, C. O'Dea, C. Wise, M.	Ohio University NRAO-Socorro STScI MIT	Cavities in Abell 2597's X-ray atmosphere	20	25	8.0
A0159	Owen, F. O'Dea, C. van der Marel, R. Laine, S. Postman, M. Lauer, T.	NRAO-Socorro STScI STScI STScI NOAO	Radio sources and black holes in brightest cluster galaxies	20	10, 11, 12, 14	23.0
AR440	Rudnick, L. Young, A. Makishima, K. Tshiro, M. Iyomoto, N. Kassim, N. Worrall, D.	Minnesota Minnesota Tokyo Tokyo Toyko NRL Bristol	Radio lobe physics - radio spectra and inverse compton x-rays	20, 90	10, 14, 19	11.0
AR458	Rupen, M.P. Moduszewski, A.J. Dhawan, V.	NRAO-Socorro NRAO-Socorro NRAO-Socorro	Radio and x-ray activity in Galactic black hole X-ray transients	0.7, 1.3, 2, 3.6, 6, 20	4, 11, 17, 25	8.0
AR461	Reynolds, C.S. Rosenberg, J.L. Heinz, S. Begelman, M.C.	Colorado Colorado MPA Colorado	A cluster/radio galaxy interaction: Abell 4059/PKS 2354-35	6, 20	10	2.5
AR462	Roberts, M. Gaensler, B. Romani, R.	McGill MIT Stanford	Two potential pulsar wind nebula associated with gamma ray sources	6, 20	14	6.0
AR463	Roberts, M. Kaspi, V.	McGill McGill	Expansion of the shell and pulsar wind nebula of SNR G11.2-0.3	2, 6, 20	13	8.5

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Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AS710	Shirai, T. Imai, H. Oyama, T. Sinsuke, A.	Tokyo NAO Tokyo Advanced Graduate Sc	Search for extra terrestrial intelligence at water frequency	1.3 line	1	7.5
AS713	Schmitt, H.R. Calzetti, D. Armus, L.	NRAO-SOC STScI Caltech	Local starbursts galaxies	2, 3.6	24	7.0
AT260	Tarchi, A. Henkel, C. Peck, A. Menten, K.	Bonn Univ MPIfR MPIfR MPIfR	H2O kilomaser in NGC 2146: disk or nuclear emission	1.3 line	24	9.0
AT264	Taylor, G. Peck, A.	NRAO-Socorro MPIfR	Confirmation of HCO+ in a CSD candidate	1.3 line	6	3.0
AU087	Umana, G. Trigilio, C.	Noto Noto	Search for very young planetary nebulae	3.6	8, 10	7.0
AZ129	Zhao, J.-H. Bower, G. Goss, M. McGary, R.S.	CfA Calif.-Berkeley NRAO-Socorro Harvard	VLA Monitoring Sgr A*	0.7, 1.3, 2	2, 11, 16, 24	4.0
BD069	Diamond, P.J. Kemball, A.J.	Jodrell Bank NRAO-Socorro	TX Cam: the final curtain	0.7 Single antenna VLBI	28, 24	10.0
BG113	Gomez, J.L. Marscher, A.P. Marchenko-Jorstad, S Alberdi, A. Agudo, I. Marti, J.M. Aloy, M.A. Ibanez, J.M.	IAA Boston Boston IAA IAA U. Jaen Valencia Valencia	Monitoring superluminal components in 3C120	0.7, 1.3, 2	10	2.5
BG118	Greenhill, L. Chandler, C.J. Diamond, P. Moran, J.M. Reid, M.J.	CfA NRAO Jodrell Bank CfA CfA	SiO maser motions in Orion BN/KL	0.7 Single antenna VLBI	22	8.0
BG119	Guedel, M. Smith, K. Beasley, A. Audard, M. Brinkman, A. Mewe, R. Savin, D. Benz, A.O.	Scherrer ETH Caltech-OVRO Paul Scherrer Utrecht Utrecht Columbia ETH	Observations of RS CVn stars with XMM	3.6, 6 Phased array VLBI	3	12.0
BM159	Momjian, E. Romney, J.D. Carilli, C. Troland, T.	Kentucky/NRAO NRAO-Socorro NRAO-Socorro Kentucky	VLBA observations of the ultra luminous infrared galaxies	20 Phased array VLBI	3	11.0
BR071	Ratner, M.I. Bartel, N. Bietenholz, M.F. Lebach, D.E. Lestrade, J-F. Ransom, R.R. Shapiro, I.I.	CfA York York CfA Meudon York CfA	Astrometry of HR 8703 in 2001 for the gravity probe-b mission	2, 3.6, 6 Phased array VLBI	28	12.0
GB042	Bartel, N. Rupen, M. Bietenholz, M. Beasley, A.J. Graham, D.A. Altunin, V.I. Venturi, T. Umana, G. Cannon, W.H. Conway, J.E.	York NRAO-Socorro York Caltech-OVRO MPIfR JPL Bologna Noto York Onsala	SN 1993J and the core jet counterjet in M81	3.6, 6, 20 Phased array VLBI	9	15.0
GG038	Giovannini, G. Feretti, L. Venturi, T. Cotton, W.D. Lara, L. Taylor, G.B.	Bologna Bologna Bologna NRAO-CV IAA NRAO-Socorro	Symmetrically expanding FRI radio galaxy 3C338	2, 3.6 Phased array VLBI	1	11.0

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Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
GM044	McDonald, A.R. Pedlar, A. Muxlow, T.W.B. Diamond, P.J. Wills, K.A. Garrett, M.A. Wilkinson, P.N.	Jodrell Bank Jodrell Bank Jodrell Bank Jodrell Bank Sheffield U. JIVE Jodrell Bank	The compact, ultraluminous source in M82	6 Phased array VLBI	6	12.5
GR016	Ros, E. Marcaide, J.M. Guirado, J.C. Perez-Torres, M.A. Lara, L. Alberdi, A.	MPIfR Valencia Valencia Bologna IAA IAA	Proper motions in quad gravitational lenses	3.6 Phased array VLBI	2	14.5
	Staff	NRAO	Baselines, Pointing, Delays Maintenance Move/Operations Software Student observation General tests			44.0 62.0 25.0 36.0 2.5 60.5

The average downtime was 4.6%.

The array was scheduled for 100.0 % (722.0 hours)  
 519.7 hours (72.0% of time) for astronomical programs  
 132.0 hours (18.3% of time) for tests/calibration  
 70.3 hours ( 9.7% of time) for maintenance  
 Total 709.0 hours ( 95.0%) scheduled.

Array was in the CnB configuration from June 1 through June 26  
 Array was in the C configuration from June 26 through June 30  
 The following independent proposals shared simultaneous observing time  
 (28.8 hours total simultaneous observing):

Projects	Hours
AF383/BG118	5.5
AH730/Move/Op	6.2
AS713/BD69	1.5
AT260/BD69	6.5
Move/Op/BR71	3.7
Move/Op/Test	5.1
Software/BG118	0.2

## VLA Utilization Report May 2001

Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AA255	Anantharamaiah, K.R. Pedlar, A. Goss, M. Viallefond, F.	Raman Jodrell Bank NRAO-Socorro Paris Obs.	8 GHz radio recombination line observations of M82	3.6	5, 11	18.0
AA256	Anglada, G. Rodriguez, I.F. Estalella, R. Beltran, M.T. Torrelles, J.M.	IAA UNAM Barcelona Cfa Catalunya	Disk of the embedded companion of SBS13	0.7	4, 20	15.5
AB0950	Becker, R.H. White, R.L. Helfand, D.J.	Calif.-Davis STScI Columbia	The FIRST survey	20	...	66.0
AB0978	Best, P. Cimatti, A. Rottgering, H.	IfA Arcetri Leiden	Radio source size and polarization evolution	3.6, 6	26, 27	5.0
AB0989	Berger, E.	Caltech	Radio survey of bona fide and candidate brown dwarfs	3.6	28, 31	4.5
AB0992	Boonyasait, V. Gottesman, S.T. Beckman, J.E.	Florida Florida IAC	Correlating H alpha and HI structures near HII regions	20	3, 15, 18, 26, 27, 28	21.0
AB0994	Berger, E.	Caltech	Multi-frequency monitoring of the Brown Dwarf LP944-20	1.3, 3.6, 6, 20	31	3.5
AC524	Cartwright, J.K. Taylor, G.B. Readhead, A.C.S. Pearson, T.J.	Caltech NRAO-Socorro Caltech Caltech	Polarization monitoring observations of 3C273	0.7, 1.3	4, 17, 31	6.5
AC575	Caccianiga, A. Marcha, M.J.	Lisbon Lisbon	Core dominance parameter for a sample of mini blazars	20	11, 27	7.0
AC577	Carilli, C. Kohno, K. Kawabe, R. Ohta, K.	NRAO-Socorro NAO NAO Kyoto	Imaging the CO Emission from the z=4.7 QSO 1202-0725	0.7	18, 20, 24	24.0
AC582	Clarke, T.	NRAO	Faraday study of galaxy cluster core sources	20	6	18.5
AD444	Dennett-Thorpe, J. Best, P.N. Kaiser, C.R.	Groningen IfA MPIA-Garching	Depolarization properties of FR II radio galaxies	6, 20	19	10.0
AD445	Duc, P.A. Braine, J. Brinks, E. Charmandaris, V. Leon, S. Lisenfeld, U.	Saclay Bordeaux Guanajuato Cornell Cologne IRAM	Tidal dwarf galaxies in HI Tails of Arp 245 and Arp 105	20	7	6.0
AE140	Eyres, S.P.S. Bode, M.F. O'Brien, T.J. Davis, R.J. Richards, A.M.S. Crocker, M.M. Taylor, A.R. Dougherty, S.M. Ivison, R.J. Kenny, H.T.	John Moores John Moores Jodrell Bank Jodrell Bank Jodrell Bank Jodrell Bank Calgary DRAO University College Canadian Military	Symbiotic stars	3.6, 6	25	6.0
AE142	Edge, A.C. Ebeling, H.	Durham Hawaii	Radio galaxies in X-ray selected galaxy clusters	20	5	10.0
AF370	Falcke, H. Brunthaler, A. Bower, G. Aller, M. Aller, H. Terasranta, H.	MPIfR MPIfR Calif.-Berkeley Michigan Michigan Metsahovi	III Zw 2, a superluminal jet in a spiral galaxy	0.7, 1.3, 2, 3.6, 20, 90	3, 26	2.0
AF377	Fassnacht, C. Rusin, D. Xanthopoulos, E. Koopmans, L.	STSci Pennsylvania Jodrell Bank Caltech	Monitoring of JVAs and CLASS gravitational lenses	2, 3.6, 6	...	21.0
AF384	Fender, R.P. Jonker, P.G. Rupen, M.P. van der Klis, M. Homan, J. Mendez, M.	Amsterdam Amsterdam NRAO-Socorro Amsterdam Amsterdam La Plata Obs.	RXTE and VLA observations of the Atoll source 4U 1728-34	3.6, 6	27, 29	4.0

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Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AG589	Gudel, M. Beasley, A.J. Audard, M. Benz, A.O. Mewe, R. Brinkman, A. Savin, D.	Paul Scherrer OVRO Paul Scherrer ETH Utrecht Utrecht Columbia	Bright stellar coronae observed with XMM	3.6, 6	14	9.0
AG607	Gomez, Y. Rodriguez, L.F. Garay, G.	UNAM UNAM Chile	Hypercompact radio sources in HII region GGD 14	3.6, 6	27	6.0
AH685	Haarsma, D.B. Hewitt, J. Langston, G. Moore, C.	Calvin College MIT NRAO-GB Groningen	Time delay monitoring of gravitational lens 2016+112	3.6, 6	6, 28	3.5
AH707	Helfand, D.J. Becker, R.H. White, R.L. Warwick, R.	Columbia Calif.-Davis STScI Leicester	A new x-ray/radio image of the milky way	20 line	23	1.5
AH717	Hardcastle, M.J. Sakelliou, I.	Bristol MRAO	Jets and their termination in wide angle tail radio galaxies	3.6	19	10.0
AH733	Healy, K.R. Claussen, M. Hester, J.	Arizona State NRAO-Socorro Arizona State	Water maser activity in young low-mass stars in HII regions	1.3	17	8.0
AI091	Ivison, R.J. Dunlop, J.S. Smail, I. Jenner, C.E. Dey, A.	University College Edinburgh Durham University College NOAO	High redshift AGN fields with SCUBA maps	20	14, 17	20.0
AK509	Kulkarni, S.K. Frail, D. Galama, T.J. Bloom, J.S. Berger, E. Harrison, F.A.	Caltech NRAO-Socorro Caltech Caltech Caltech Caltech	Radio afterglows from gamma ray bursts		...	26.0
AK518	Koopmans, L.V.E. de Bruyn, A.G. Fassnacht, C.D. Wambsganss, J. Blandford, R.D.	Caltech NFRA NRAO-Socorro Potsdam Caltech	Radio microlensing in B 1600+434	2, 3.6, 6, 20	...	10.0
AK532	Kobulnicky, C. Martin, C.	Wisconsin Caltech	NGC 1569, the nearest starburst with a galactic wind	6, 20, 90	13	8.0
AL537	Leon, S. Lim, J. Borne, K. Verdes-Montenegro, L	Cologne Academia Sinica NASA-GSFC IAA	Ultraluminous infrared galaxies in multiple interactions	3.6	20	4.0
AM661	Monnier, J.D. Greenhill, L.J. Tuthill, P.G. Danchi, W.C.	CfA CfA Sydney NASA/GSFC	Spectral variability of the WR 112 binary system	0.7, 1.3, 2, 3.6, 6, 20	4	3.0
AM665	McHardy, I. Uttley, P.	Southampton Southampton	Radio variability of the Seyfert galaxy NGC 4051	3.6, 6	4, 16, 30	3.5
AM672	Murphy, D.W. Marshall, H. Lovell, J. Jauncey, D. Preston, R. Birkinshaw, M. Worrall, D. Schwartz, D.	JPL MIT ATNF ATNF JPL Bristol Bristol CfA	A sample of core dominated radio sources	3.6, 6	6	12.0
AM674	Mohan, N.R. Kurtz, S. Anantharamaiah, K.R.	Raman UNAM Raman	Extended emission around ultracompact HII regions	6	1	2.0
AM676	Morrison, G. Ledlow, M. Owen, F. Dressler, A. Oemler, A.	IPAC Gemini NRAO-Socorro Carnegie Obs. Carnegie Obs.	Star formation in the richest Abell clusters	20	12, 13	24.0
AM688	Myers, S.T. Brogan, C.	NRAO-Socorro NRAO-Socorro	Survey of circular polarization in AGN	3.6, 6, 20	28	4.0
AM690	Muno, M.P. Remillard, R. Dhawan, V. Pooley, G. Morgan, E.	MIT MIT NRAO-Socorro Cambridge MIT	Coincident VLA/Chandra observations of GRS 1915+105	1.3, 3.6, 20	22	8.0

## VLA Utilization Report May 2001

Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
A0155	Oosterloo, T. Morganti, R. Tadhunter, C.N. Wills, K.A. van Moorsel, G.	NFRA NFRA Sheffield Sheffield NRAO-Socorro	HI absorption in radio galaxy Coma A	20	15	10.5
A0158	Osorio, M. Anglada, G. Rodriguez, L.F. Lizano, S.	UNAM IAA UNAM UNAM	Ammonia (4,4) and (5,5) in hot molecular cores	1.3	24, 25, 25	24.0
AP422	Perlman, E. Jones, L. Scharf, C. Ebeling, H. Horner, D. Fairley, B.	STScI Birmingham (UK) STScI Hawaii GFSC Birmingham	Radiogalaxies in clusters with redshifts 0.5 to 1.0	20	18	6.0
AR441	Rudnick, L. Young, A. Kassim, N. Slee, O.B. Sarazin, C. Andernach, H. Roy, A.	Minnesota Minnesota NRL ATNF Virginia Guanajuato MPIfR	Cluster "relic" physics - spectral and x-ray studies	20, 90	10, 16	9.0
AR458	Rupen, M.P. Mioduszewski, A.J. Dhawan, V.	NRAO-Socorro Sydney NRAO-Socorro	Radio and x-ray activity in Galactic black hole X-ray transients	0.7, 1.3, 2, 3.6, 6, 20	5, 11, 19, 28	8.0
AS687	Soifer, B.T. Helou, G. Werner, M. Shupe, D. Storrie-Lombardi, L. Condon, J.J. Cotton, W.D.	Caltech Caltech JPL Caltech Caltech NRAO-CV NRAO-CV	the SIRTF First-look survey	20	2, 7, 9, 23	31.0
AS701	Sokoloski, J.L. Kaiser, C. Charles, P.A.	Southampton MPIA-Garching Southampton	Symbiotic binaries during outburst	3.6, 6, 20	8	3.0
AT262	Tarchi, A. Henkel, C. Menten, K. Peck, A.	MPIR MPIR MPIR MPIR	H2O maser in IC 342: massive stars or a circumnuclear disk?	1.3	12	2.0
AW550	Watson, C. Sewilo, M. Churchwell, E.	Wisconsin Wisconsin Wisconsin	Radio recombination line study towards UC HII regions	1.3	11, 15	16.0
AW555	Wilcots, E.M. Sanders, W.	Wisconsin Wisconsin	Searching for Local bubbles in face on spirals	20	25	8.0
AZ129	Zhao, J.-H. Bower, G. Goss, M. McGary, R.S.	CfA Calif.-Berkeley NRAO-Socorro Harvard	VLA Monitoring Sgr A*	0.7, 1.3, 2	5, 11, 20, 28	4.0
BD069	Diamond, P.J. Kemball, A.J.	Jodrell Bank NRAO-Socorro	TX Cam: the final curtain	0.7 Single antenna VLBI	22, 19	10.0
BG113	Gomez, J.L. Marscher, A.P. Marchenko-Jorstad, S. Alberdi, A. Agudo, I. Marti, J.M. Aloy, M.A. Ibanez, J.M.	IAA Boston Boston IAA IAA U. Jaen Valencia Valencia	Monitoring superluminal components in 3C120	0.7, 1.3, 2 Single antenna VLBI	11, 7	14.0
BG118	Greenhill, L. Chandler, C.J. Diamond, P. Moran, J.M. Reid, M.J.	CfA NRAO Jodrell Bank CfA CfA	SiO maser motions in Orion BN/KL	0.7 Single antenna VLBI	18	8.0
BL101	Leahy, J.P. Spencer, R.E. Taylor, G.B. Harris, D.E.	Jodrell Bank Jodrell Bank NRAO-Socorro CfA	Hotspots of 3C 295 at 327 MHz	90 Single antenna VLBI	28	15.0
BM145	Mantovani, F. Junior, W. Saikia, D.J. Salter, C.J.	Bologna New Mexico NCRA-Pune Arecibo	Polarization and rotation measure in CSS QSOs	3.6, 6 Single antenna VLBI	6	12.0

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Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
BS091	Sahai, R. Claussen, M.J. Morris, M.	JPL NRAO-Socorro Calif.-Los Angeles	The high velocity H2O jet in IRAS 16342-3814	1.3	21	1.0
GS017	Spencer, R.E. McCormick, D.G. Stirling, A. Garrett, M. Fender, R.	Jodrell Bank Jodrell Bank Lancashire JIVE Amsterdam	Jet precession in Cygnus X-1	3.6 Phased array VLBI	30	8.5
	Staff	NRAO	Baselines, Pointing, Delays Maintenance Move/Operations Software General tests			35.0 100.5 5.0 32.0 29.5

The average downtime was 4.6%.

The array was scheduled for 100.0 % (746.1 hours)  
 549.2 hours (73.6% of time) for astronomical programs  
 98.2 hours (13.2% of time) for tests/calibration  
 98.7 hours (13.2% of time) for maintenance  
 Total 709.0 hours ( 95.0%) scheduled.

Array was in the B configuration from May 1 through May 29

Array was in the CnB configuration from May 29 through May 31Total number of programs was 55.

The following independent proposals shared simultaneous observing time (63.4 hours total simultaneous observing):

Projects	Hours
AB989/BL101	2.0
AC577/BG118	1.6
AC582/BG113	8.2
AD455/BM113	3.9
AF377/BL101	1.1
AF377/BL101	2.0
AF384/BL101	2.0
AK509/BG118	2.0
AK509/BL101	1.0
AK509/BL101	3.0
AK509/BM145	0.2
AK518/BL101	1.0
AM672/BM145	11.8
AM688/BL101	2.9
AP622/BG118	4.4
Move/Op/GS17	8.2
Test/BD69	8.0
Test/BL101	0.3

## VLA Utilization Report April 2001

Program	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AA256	Anglada, G. Rodriguez, L.F. Estalella, R. Beltran, M.T. Torrelles, J.M.	IAA UNAM Barcelona CfA Catalunya	Disk of the embedded companion of SBS13	0.7	20	10.5
AB0950	Becker, R.H. White, R.L. Helfand, D.J.	Calif.-Davis STSci Columbia	The FIRST survey	20	1,2,4,10,17, 19,24,26,30	76.5
AB0988	Bietenholz, M.F. Frail, D.A. Bartel, N. Hester, J.J.	York NRAO-Socorro York Arizona State	Radio movie of the Crab nebula	6 w/BG118	16	12.5
AB0992	Boonyasait, V. Gottesman, S.T. Beckman, J.E.	Florida Florida IAC	Correlating H alpha and HI structures near HII regions	20	28	6.5
AB931	Blundell, K. Kassim, N. Lazio, T.J.W. Owen, F. Rawlings, S.	Oxford NRL NRL NRAO-Socorro Oxford	New low-frequency survey: acces to the distant Universe	400, 90	1	4.9
AC524	Cartwright, J.K. Taylor, G.B. Readhead, A.C.S. Pearson, T.J.	Caltech NRAO-Socorro Caltech Caltech	Polarization monitoring observations of 3C273	0.7, 1.3	5	2.0
AC571	Carilli, C. Bertoldi, F. Cox, P. McMahon, R. Menten, K. Omont, A.	NRAO-Socorro MPIR IAP Cambridge MPIR IAP	Sensitive search for radio emission from dust emitting, high redshift QSOs from the Palomar Digital Sky Survey	20	7,12	3.7
AC572	Clarke, T.	NRAO-Socorro	High resolution faraday study of compact cluster core sources	6 w/BD69	15, 22	22.0
AC587	Carilli, C. Bertoldi, F. Menten, K. Hasinger, G.	NRAO-Socorro MPIFR MPIfR Potsdam	Deep VLA Imaging the Lockman hole field	20	14, 21, 22, 27	27.7
AC591	Curiel, S. Girart, J.M. Raga, A.	UNAM Illinois UNAM	First epoch for proper motions of the SiO emission in L1488	0.7	13	10.0
AD445	Duc, P.A. Braine, J. Brinks, E. Charmandaris, V. Leon, S. Lisenfeld, U.	Saclay Bordeaux Guanajuato Cornell Cologne IRAM	Tidal dwarf galaxies in HI Tails of Arp 245 and Arp 105	20	23, 28, 29	25.3
AD446	Dunlop, J.S. Ivison, R.J. Almaini, O. Blain, A.W. Hughes, D.H. Ciliegi, P.	Edinburgh University College Edinburgh Cambridge INAOE Bologna	Exploring the nature of the SCUBA/X ray source population	20	10	3.5
AE134	Eyles, S. Bode, M. O'Brien, T. Davis, R. Ivison, R. Evans, A.	John Moores John Moores Jodrell Bank Jodrell Bank University College Keele	Target of opportunity observations of classical novae	1.3, 2, 3.6, 6, 20	9	1.5
AF370	Falcke, H. Brunthaler, A. Bower, G. Aller, M. Aller, H. Terasranta, H.	MPIfR MPIfR Calif.-Berkeley Michigan Michigan Metsahovi	III Zw 2, a superluminal jet in a spiral galaxy	0.7, 1.3, 2, 3.6, 20, 90	10	1.0
AF377	Fassnacht, C. Rusin, D. Xanthopoulos, E. Koopmans, L.	STSci Pennsylvania Jodrell Bank Caltech	Monitoring of JVAS and CLASS gravitational lenses	2, 3.6, 6	1,2,5,8,10,1 3,16-18,20,2 1,24,26,27,3 0	26.0
AF381	Fish, V.L. Reid, M.	CfA CfA	HII regions associated with OH masers	2, 6	23	12.5

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Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AG589	Gudel, M. Beasley, A.J. Audard, M. Benz, A.O. Mewe, R. Brinkman, A. Savin, D.	Paul Scherrer OVRO Paul Scherrer ETH Utrecht Utrecht Columbia	Bright stellar coronae observed with XMM	3.6, 6	6	12.0
AG604	Giovannini, G. Brunetti, G. Feretti, L. Govoni, F. Setti, G.	Bologna Bologna Bologna Bologna Bologna	A665 and A2163 halo sources	90	5, 15	8.5
AG605	Gaensler, B. Kassim, N. Lazio, J. Slane, P. Schulz, N. Safi-Harb, S. Harrus, I.	MIT NRL NRL CFA MIT Manitoba NASA-GSFC	Deep search for a shell around the Crab-like SNR G21.5-0.9	20, 90	28	8.5
AH685	Haarsma, D.B. Hewitt, J. Langston, G. Moore, C.	Calvin College MIT NRAO-GB Groningen	Time delay monitoring of gravitational lens 2016+112	3.6, 6	13	2.0
AH714	Hardcastle, M.J.	Bristol	Jets and the emission line gas around 3C171	1.3, 2	9	7.0
AK509	Kulkarni, S.K. Frail, D. Galama, T.J. Bloom, J.S. Berger, E. Harrison, F.A.	Caltech NRAO-Socorro Caltech Caltech Caltech Caltech	Radio afterglows from gamma ray bursts	1, 5, 8, 10, 12, 14, 19, 21, 22, 24, 26, 28 W/BC111		23.0
AK518	Koopmans, L.V.E. de Bruyn, A.G. Fassnacht, C.D. Wambsganss, J. Blandford, R.D.	Caltech NFRA NRAO-Socorro Potsdam Caltech	Radio microlensing in B 1600+434	2, 3.6, 6, 20	1, 5, 8, 14, 18, 20, 25, 27, 30	11.0
AK526	Kaufman, M. Brinks, E. Elmegreen, B. Elmegreen, D.	Ohio State Guanajuato IBM Vassar	An unusually energetic region on an outer spiral arm of NGC 2207	6	14	2.0
AK528	Kwok, S. Lee, T.-H. Lim, J.	Calgary Calgary Academia Sinica	Radio morphologies of planetary nebulae	3.6	7	13.8
AK531	Kaplan, D. Frail, D. Kulkarni, S.	Caltech NRAO-Socorro Caltech	Nearest neutron stars	20 W/BC111	29	3.0
AL535	Lim, J. Ho, P.T.P.	Academia Sinica CfA	HI Environment of low redshift QSOs	20	7, 8, 9	24.1
AM665	McHardy, I. Uttley, P.	Southampton Southampton	Radio variability of the Seyfert galaxy NGC 4051	3.6, 6	6, 24	2.0
AM671	Muxlow, T. Pedlar, A. Wills, K.A. McDonald, A.	Jodrell Bank Jodrell Bank Sheffield U. Manchester	Starburst galaxy M82	2	11	4.2
A0157	Omar, A. Anantharamaiah, K.R. Rupen, M.	Raman Raman NRAO-Socorro	OH in water megamaser galaxies	20	9	6.0
AP422	Perlman, E. Jones, L. Scharf, C. Ebeling, H. Horner, D. Fairley, B.	STScI Birmingham (UK) STScI Hawaii GFSC/UM Birmingham	Radiogalaxies in clusters with redshifts 0.5 to 1.0	20 W/BD69	15, 21	16.5
AR435	Rudnick, L. Koralsky, B. Petre, R. Gotthelf, E. Holt, S.	Minnesota Minnesota NASA-GSFC Columbia NASA-GSFC	Cas A: probing the x-ray/radio connections	6 W/BC111	29	7.0
AR454	Rodriguez, L.F. Gomez, Y. Lopez, J.A.	UNAM UNAM UNAM	Time variation in the morphology of planetary nebula KJPN 8	3.6	30	8.0
AR458	Rupen, M.P. Mioduszewski, A.J. Dhawan, V.	NRAO-Socorro NRAO-Socorro NRAO-Socorro	Radio and x-ray activity in Galactic black hole X-ray transients	0.7, 1.3, 2, 3.6, 6, 20 W/BC111	6, 8, 16, 22	12.8

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Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AR459	Ratay, D. Gottesman, S.T.	Florida Florida	Barred spiral NGC 1784	20	1, 2, 6, 8, 23, 27	26.0
AS687	Soifer, B.T. Helou, G. Werner, M. Shupe, D. Storrie-Lombardi, L. Condon, J.J. Cotton, W.D.	Caltech IPAC JPL Caltech Caltech NRAO-CV NRAO-CV	the SIRTF First-look survey	20	12, 13, 20, 25	38.5
AS697	Schoenmakers, A.P. Rottgering, H. deBruyn, A.G. Kaiser, C.R.	NFRA Dwingeloo Leiden NFRA MPIA-Garching	Structure and formation of double-double radio galaxies	3.6, 6, 20	1	14.0
AT256	Taylor, G. Peck, A.	NRAO-Socorro MPFR	Searching for HI absorption in TX 2226-2475	20	19,20,24	10.0
AW556	Willson, R.W. van Driel-Gestelyi, Klein, K.-L. Bentley, R.D.	Tufts Paris Obs. Paris Obs. University College	Collaborative observations of Type I noise storms	20, 90	5, 26, 27	12.0
AY121	Yun, M. Sanders, D. Kawara, K. Taniguchi, Y.	Massachusetts Hawaii Tokyo Tohoku	The Lockman Hole ROSat/XMM/ISO deep survey field	20	1	3.5
AZ129	Zhao, J.-H. Bower, G. Goss, M. McGary, R.S.	CfA Calif.-Berkeley NRAO-Socorro Harvard	VLA Monitoring Sgr A*	0.7, 1.3, 2 w/BC111	1, 7, 16, 22, 29	5.1
BC111	Cotton, W.D. Mennesson, B. Vlemmings, W. Perrin, G. Coude du Foresto, V. Chagnon, G. Diamond, P.J. van Langevelde, H.J. Ridgway, S. Morel, S. Traub, W. Carleton, N. Lacasse, M. Waters, R.	NRAO-CV Leiden Leiden Meudon Paris Obs. Paris Obs. Jodrell Bank JIVE NOAO CfA CfA CfA CfA Amsterdam	Bright O-rich Mira stars	0.7 Single antenna VLBI w/AD445, AR458, AZ129, AK531, AR4 35, AK509	29	18.3
BD069	Diamond, P.J. Kemball, A.J.	Jodrell Bank NRAO-Socorro	TX Cam: the final curtain	0.7 Single antenna VLBI w/AP422, AC572	15	8.2
BG113	Gomez, J.L. Marscher, A.P. Marchenko-Jorstad, S. Alberdi, A. Agudo, I. Martí, J.M. Aloy, M.A. Ibanez, J.M.	IAA Boston Boston IAA IAA U. Jaen Valencia Valencia	Monitoring superluminal components in 3C120	0.7, 1.3, 2	7	1.9
BG118	Greenhill, L. Chandler, C.J. Diamond, P. Moran, J.M. Reid, M.J.	CfA NRAO Jodrell Bank CfA CfA	SiO maser motions in Orion BN/KL	0.7 Single antenna VLBI w/AB876	16	8.1
BS091	Sahai, R. Claussen, M.J. Morris, M.	JPL NRAO-Socorro Calif.-Los Angeles	The high velocity H2O jet in IRAS 16342-3814	1.3	22	1.0
W407	Slysh, V.I. Voronkov, M.A. Migenes, V. Fomalont, E.B. Shibata, K.M. Altunin, V.I.	Lebedev Lebedev Guanajuato NRAO-CV NAO JPL	Sensitive high resolution observations of OH maser spots	20 Phased array VLBI	6, 12	17.7
W418	Gurvits, L.I. Dennett-Thorpe, J. de Bruyn, A.G.	JIVE Groningen NFRA	Extremely variable IDV source J1819+3845	6 Phased array VLBI	16	10.4
STUDEN	Partridge, B.	Haverford	Student observation		19	2.5

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Program	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
	Staff	NRAO	Baselines, Pointing, Delays Maintenance Software General tests			36.7 46.8 35.0 38.6

The average downtime was 4.6%.

The array was scheduled for 100.0% (723.0 hours)  
 563.4 hours (77.9% of time) for astronomical programs  
 77.8 hours (10.8% of time) for tests/calibration  
 81.8 hours (11.3% of time) for maintenance  
 Total 723.0 hours (100.0%) scheduled.

Array was in the B configuration from March 1 through March 31 .

Total number of programs was 48 .

The following independent proposals shared simultaneous observing time (34.7 hours total simultaneous observing):

Projects	Hours
AB876/BG118	8.1
AC572/BD069	4.9
AD445/BC111	1.0
AD445/BC111	2.5
AK509/BC111	1.9
AK531/BC111	3.0
AP422/BD069	3.3
AR435/BC111	7.0
AR458/BC111	2.0
AZ129/BC111	1.0

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Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AB0950	Becker, R.H. White, R.L. Helfand, D.J.	Calif.-Davis STScI Columbia	The FIRST survey	20	7,13,14,20,21, 1,27,28	52.1
AB0987	Bower, G.C. Falcke, H. Brunthaler, A. Mellon, R.	Calif.-Berkeley MPIfR MPIfR Penn State	Linear and circular polarization of M81	1.3, 2, 3.6, 6	1	4.0
AB0988	Bietenholz, M.F. Frail, D.A. Bartel, N. Hester, J.J.	York NRAO-Socorro York Arizona State	Radio movie of the Crab nebula	6	12, 26	24.0
AB0991	Brown, A. Osten, R. Ayres, T. Harper, G. Guinan, E.	Colorado Colorado Colorado Colorado Villanova	Chandra and VLA observations of RS CVn binary ER Vul	3.6, 20	29	12.0
AB1005	Blomme, R.	Royal Obs Belgium	Current flux of 9 Sgr	20, 6, 2.6	8	1.0
AC524	Cartwright, J.K. Taylor, G.B. Readhead, A.C.S. Pearson, T.J.	Caltech NRAO-Socorro Caltech Caltech	Polarization monitoring observations of 3C273	0.7, 1.3	3, 13, 26	6.0
AC583	Clarke, T. Enslin, T. Kassim, N. Neumann, D.N.	NRAO-Socorro MPIA NRL Saclay	Low frequency observations of diffuse emission in Abell 2256	90, 400 W/BB129	8	18.5
AC592	Condon, J.J. Jarrett, T.H. Helou, G.	NRAO-CV IPAC IPAC	The second "taffy" galaxy pair	20 W/BD69	16	5.0
AD441	Dwarakanath, K.S. Kassim, N. Owen, F. Perley, R.A.	Raman NRL NRAO-Socorro NRAO-Socorro	The radio halo of Virgo A at 74 MHz	400	1	4.0
AF370	Falcke, H. Brunthaler, A. Bower, G. Aller, M. Aller, H. Terasranta, H.	MPIfR MPIfR Calif.-Berkeley Michigan Michigan Metsahovi	III Zw 2, a superluminal jet in a spiral galaxy	0.7, 1.3, 2, 3.6, 20, 90	16	1.0
AF377	Fassnacht, C. Rusin, D. Xanthopoulos, E. Koopmans, L.	STScI Pennsylvania Jodrell Bank Caltech	Monitoring of JVAS and CLASS gravitational lenses	2, 3.6, 6	1,3,5,8,9,12 ,13,15,17,20 ,22,23,25,27 ,29-31	25.2
AH685	Haarsma, D.B. Hewitt, J. Langston, G. Moore, C.	Calvin College MIT NRAO-GB Groningen	Time delay monitoring of gravitational lens 2016+112	3.6, 6	20	2.0
AH707	Helfand, D.J. Becker, R.H. White, R.L. Warwick, R.	Columbia Calif.-Davis STScI Leicester	A new x-ray/radio image of the milky way	20 line	13, 16, 18, 19	28.0
AH726	Hatchell, J. Thompson, M.	MPIfR Kent	High mass SCUBA cores - with or without HII regions?	2, 6	24	4.0
AH733	Healy, K.R. Claussen, M. Hester, J.	Arizona State NRAO-Socorro Arizona State	Water maser activity in young low-mass stars in HII regions	1.3	26	8.0
AI088	Ivison, R.J. Papadopoulos, P. Carilli, C. Barvainis, R. Lewis, G.F.	University College Leiden NRAO-Socorro NSF AAO	CO J=1-0 and J=2-1 mapping of the z=3.9 quasar APM 08279+5255	1.3	2, 4	16.0
AK509	Kulkarni, S.K. Frail, D. Galama, T.J. Bloom, J.S. Berger, E. Harrison, F.A.	Caltech NRAO-Socorro Caltech Caltech Caltech Caltech	Radio afterglows from gamma ray bursts		1-5,8,13-15, 17,19,20,22, 25,27-29,31	29.4
AK518	Koopmans, L.V.E. de Bruyn, A.G. Fassnacht, C.D. Wambsganss, J. Blandford, R.D.	Caltech NFRA STScI Potsdam Caltech	Radio microlensing in B 1600+434	2, 3.6, 6, 20	3,6,8,12,15, 17,20,22,25, 28,31	12.0
AK530	Kaplan, D. Kulkarni, S. Frail, D.	Caltech Caltech NRAO-Socorro	Anomalous X-ray pulsars	20	11	16.0

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Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AK533	Kempner, J. Sarazin, C. Rudnick, L.	Virginia Virginia Minnesota	Cluster radio relics discovered in WENSS	20, 90 W/BB129	9	10.0
AL529	Lacey, C. Kassim, N. Dyer, K. Brogan, C. Dwarakanath, K. Anantharamaiah, K.R. Bhatnagar, S.	NRL NRL NCSU NRAO-Socorro Raman Raman NCRA-Pune	Low frequency observations of galactic SNRs	90, 400	1	8.0
AL538	Laing, R. Canvin, J. Bridle, A. Cotton, B. Giovannini, G.	Oxford Oxford NRAO-CV NRAO-CV Bologna	Rotation measure of the jets in NGC 315	20 W/BB129	10	12.0
AM665	McHardy, I. Uttley, P.	Southampton Southampton	Radio variability of the Seyfert galaxy NGC 4051	3.6, 6	16, 31	2.5
AM677	Mundell, C.G. Ferruit, P. Friedli, D. Martin, P.F. Sheth, K.	John Moores Lyon Geneva CFHT Maryland	Gas dynamics in barred galaxies	20	16	1.0
AM678	Mihos, C. van Gorkom, J. Chang, T.C. Zabludoff, A. Zaritsky, D.	Case Western Res. Columbia Columbia Arizona Arizona	EA1: a poststarburst galaxy in an ongoing merger?	20	10, 11, 13, 15, 17	40.0
AN095	Neff, S.G. Ulvestad, J.	NASA-GSFC NRAO-Socorro	Star formation in merging galaxies: an age ordered sequence	3.6, 6 W/BG118	18, 19	13.0
AO157	Omar, A. Anantharamaiah, K.R. Rupen, M.	RRI Raman NRAO-Socorro	OH in water megamaser galaxies	20	26, 27	6.5
AR435	Rudnick, L. Koralsky, B. Petre, R. Gotthelf, E. Holt, S.	Minnesota Minnesota NASA-GSFC Columbia NASA-GSFC	Cas A: probing the x-ray/radio connections	6	25	8.0
AR440	Rudnick, L. Young, A. Makishima, K. Tshiro, M. Iyamoto, N. Kassim, N. Worrall, D.	Minnesota Minnesota Tokyo Tokyo Toyko NRL Bristol	Radio lobe physics - radio spectra and inverse compton X-rays	20, 90, 400	9, 12	12.5
AR441	Rudnick, L. Young, A. Kassim, N. Slee, O.B. Sarazin, C. Andernach, H. Roy, A.	Minnesota Minnesota NRL ATNF Virginia Guanajuato MPIfR	Cluster "relic" physics - spectral and x-ray studies	20, 90, 400	4	4.0
AR455	Rawlings, S. Dalton, G. Blake, C. Wegner, G.	Oxford Oxford Oxford Dartmouth	Radio imaging of Oxford Wide field camera study	20	25, 30	16.0
AR458	Rupen, M.P. Mioduszewski, A.J. Dhawan, V.	NRAO-Socorro Sydney NRAO-Socorro	Radio and x-ray activity in Galactic black hole X-ray transients	0.7, 1.3, 2, 3.6, 6, 20 5, 30	4, 14, 22, 23, 2	10.0
AS687	Soifer, B.T. Helou, G. Werner, M. Shupe, D. Storrie-Lombardi, L. Condon, J.J. Cotton, W.D.	Caltech IPAC JPL Caltech Caltech NRAO-CV NRAO-CV	the SIRTF First-look survey	20	1, 16, 19, 22, 29, 31	42.6
AS701	Sokoloski, J.L. Kaiser, C. Charles, P.A.	Southampton MPIA-Garching Southampton	Symbiotic binaries during outburst	3.6, 6, 20	15	3.0
AS707	Shinnaga, H. Lim, J. Dinh, V.T. Claussen, M.J. Tsuboi, M.	Academia Sinica Academia Sinica Academia Sinica NRAO-Socorro Ibaraki	SiO masers in the peculiar supergiant VY CMa	0.7 W/BD69	16, 22	8.0

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Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AW556	Willson, R.W. van Driel-Gestelyi, Klein, K.-L. Bentley, R.D.	Tufts Paris Obs. Paris Obs. University College	Collaborative observations of Type I noise storms	20, 90	18, 23-25	19.0
AW557	Willson, R.F. van Driel-Gestelyi, Klein, K.-L.	Tufts Paris Obs. Paris Obs.	Decametric type III bursts and their relationship to noise storms	400	2, 4, 5, 8	18.0
AY121	Yun, M. Sanders, D. Kawara, K. Taniguchi, Y.	Massachusetts Hawaii Tokyo Tohoku	The Lockman Hole ROSat/XMM/ISO deep survey field	20	3, 5, 31	20.5
AZ129	Zhao, J.-H. Bower, G. Goss, M. McGary, R.S.	CfA Calif.-Berkeley NRAO-Socorro Harvard	VLA Monitoring Sgr A*	0.7, 1.3, 2	4, 17, 22	3.0
BB129	Brogan, C. Claussen, M. Goss, M.	NRAO-Socorro NRAO-Socorro NRAO-Socorro	VLBA Zeeman observations of OH masers associated with SNRs	18 w/AC583, AK533, AL538, AR458, AK509, Test	9, 10, 14	12.4
BD069	Diamond, P.J. Kemball, A.J.	Jodrell Bank NRAO-Socorro	TX Cam: the final curtain	0.7 Single antenna VLBI W/AC592, AS707	16, 29	10.1
BG099	Gomez, J.L. Agudo, I. Marscher, A.P. Marchenko, S. Alberdi, A. Garcia-Miro, C. Cawthorne, T.	IAA IAA Boston Boston IAA IAA Lancashire	Polarization of sources with compact stationary components	0.7, 1.3, 2	15	2.0
BG113	Gomez, J.L. Marscher, A.P. Marchenko-Jorstad, S Alberdi, A. Agudo, I. Marti, J.M. Aloy, M.A. Ibanez, J.M.	IAA Boston Boston IAA IAA U. Jaen Valencia Valencia	Monitoring superluminal components in 3C120	0.7, 1.3, 2	5	2.0
BG118	Greenhill, L. Chandler, C.J. Diamond, P. Moran, J.M. Reid, M.J.	CfA NRAO Jodrell Bank CfA CfA	SiO maser motions in Orion BN/KL	0.7 Single antenna VLBI W/AN95, AK509	19	8.0
BK083	Kondratko, P.T. Greenhill, L.J. Moran, J.M.	Harvard CfA CfA	Does starburst/water megamaser galaxy NGC 3079 have an AGN?	1.3, 2, 3.6, 6 Phased array VLBI	23, 24	24.0
BR071	Rathner, M.I. Bartel, N. Bietenholz, M.F. Lebach, D.E. Lestrade, J-F. Ransom, R.R. Shapiro, I.I.	CfA York York CfA Meudon York CfA	Astrometry of HR 8703 in 2001 for the gravity probe-b mission	2, 3.6, 6 Phased array VLBI	31	12.0
W069	Zensus, J.A. Lobanov, A.P. Unwin, S.C. Cohen, M.H.	MPIfR MPIfR JPL Caltech	Jet in quasar 3C345	6 Phased array VLBI	3	7.7
STUDEN	DePree, C. Staff	Agnes Scott NRAO	Student observation  Baselines, Pointing, Delays Maintenance Software General tests		1     	2.0 45.5 46.8 31.6 41.2

The average downtime was 4.6%.

The array was scheduled for 96.4% (719.4 hours)

553.9 hours (74.2% of time) for astronomical programs

87.1 hours (11.7% of time) for tests/calibration

78.4 hours (10.5% of time) for maintenance

Total 719.4 hours (100.0%) scheduled.

Array was in the BnA configuration from March 1 through March 31 .

Total number of programs was 48 .

The following independent proposals shared simultaneous observing time (28.6 hours total simultaneous observing):

Projects	Hours
AC583/BB129	4.2
AC592/BD69	4.1
AK509/BB129	2.0
AK509/BG118	2.0
AK533/BB129	3.8
AL538/BB129	0.4
AN95/BG118	1.3
AR458/BB129	0.7
AS707/BD69	4.0
Baseline/BG118	4.7
Test/BB129	1.4

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Progm	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AA256	Anglada, G. Rodriguez, L.F. Estalella, R. Beltran, M.T. Torrelles, J.M.	IAA UNAM Barcelona CfA Catalunya	Disk of the embedded companion of SBS13	0.7	20	10.5
AB0950	Becker, R.H. White, R.L. Helfand, D.J.	Calif.-Davis STScI Columbia	The FIRST survey	20	...	75.5
AB0988	Bietenholz, M.F. Frail, D.A. Bartel, N. Hester, J.J.	York NRAO-Socorro York Arizona State	Radio movie of the Crab nebula	6	16	12.5
AB0992	Boonyasait, V. Gottesman, S.T. Beckman, J.E.	Florida Florida IAC	Correlating H alpha and HI structures near HII regions	20	28	6.5
AB876	Bietenholze, M.F. Frail, D.A. Hester, J.J.	York University NRAO-Socorro Arizona	Time variability in the radio structure of the crab nebula	6 W/GM41	M.F.	12.0
AB950	Becker, R.H. White, R.L. Helfand, D.J.	Calif.-Davis STScI Columbia	The FIRST survey	20	27	9.0
AB982	Blundell, K. Dubner, G. Mioduszewski, A. Kassim, N.	Oxford IAFE Sydney NRL	Imaging the W50-SS433 system at 74 MHz	400	24	6.7
AB988	Bietenholz, M.F. Frail, D.A. Bartel, N. Hester, J.J.	York NRAO-Socorro York Arizona State	Radio movie of the Crab nebula	6	24	12.0
AC467	Colina, L. Alberdi, A. Torrelles, J.M. Panagia, N. Wilson, A.	IFCA IAA Catalunya STScI Maryland	Search for radio supernovae in luminous Seyfert galaxies	2, 3.6	13, 23	4.5
AC524	Cartwright, J.K.	Caltech	Polarization monitoring observations of 3C273	0.7, 1.3	5, 18	4.0
AC572	Clarke, T.	NRAO	High resolution faraday study of compact cluster core sources	6	15, 22	22.0
AC587	Carilli, C. Bertoldi, F. Menten, K. Hasinger, G.	NRAO-Socorro MPIFR MPIFR Potsdam	Deep VLA Imaging the Lockman hole field	20	14, 21, 22, 27	24.0
AC591	Curiel, S. Girart, J.M. Raga, A.	UNAM Illinois UNAM	First epoch for proper motions of the SiO emission in L1488	0.7	13	10.0
AD440	Van Dyk, S.	IPAC	Searching for radio supernovae in Wolf-Rayet galaxies	6, 20 W/MOVE/OP	1	10.0
AD445	Duc, P.A. Braine, J. Brinks, E. Charmandaris, V. Leon, S. Lisenfeld, U.	Saclay Bordeaux Guanajuato Cornell Cologne IRAM	Tidal dwarf galaxies in HI Tails of Arp 245 and Arp 105	20	23, 28, 29	24.0
AD446	Dunlop, J.S. Ivison, R.J. Almaini, O. Blain, A.W. Hughes, D.H. Ciliegi, P.	Edinburgh University College  Cambridge INAOE Bologna	Exploring the nature of the SCUBA/X ray source population	20	10	3.5
AD447	Drake, C. McGregor, P. Norris, R. Bicknell, G. Dopita, M.	ANU ANU ATNF ANU ANU	High resolution imaging of intermediate radio loud IRAS galaxies	1.3, 3.6, 6, 20	16	8.0
AD448	Doi, A. Kohno, K. Kameno, S.	Tokyo NAO NAO	Search for high gigahertz peaked radio core in Seyfert galaxies	0.7, 1.3, 3.6, 6, 20 W/GM38	23	3.0
AE134	Eyres, S. Bode, M. O'Brien, T. Davis, R. Ivison, R. Evans, A.	John Moores John Moores Jodrell bank Jodrell Bank University College Keele	Target of opportunity observations of classical novae	1.3, 2, 3.6, 6, 20	9	1.5

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Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AM661	Monnier, J.D. Greenhill, L.J. Tuthill, P.G. Danchi, W.C.	CFA CFA Sydney NASA/GSFC	Spectral variability of the WR 112 binary system	0.7, 1.3, 2, 3.6, 6, 20	21	3.0
AM665	McLarney, I.	Southampton	Radio variability of the Seyfert galaxy NGC 4051	3.6, 6	16	1.0
AM671	Muxlow, T. Pedlar, A. Wills, K.A. McDonald, A.	Jodrell Bank Jodrell Bank Sheffield U. Manchester	Starburst galaxy M82	2	11	4.0
AM676	Morrison, G. Ledlow, M. Owen, F. Dressler, A. Oemler, A.	IPAC Gemini NRAO-Socorro Carnegie Obs. Carnegie Obs.	Star formation in the richest Abell clusters	20	16, 16	8.5
AM677	Mundell, C.G. Ferruit, P. Friedli, D. Martin, P.F. Sheth, K.	John Moores Lyon Geneva CFHT Maryland	Gas dynamics in barred galaxies	20 W/BV39	25	8.0
AN095	Neff, S.G. Ulvestad, J.	NASA-GSFC NRAO-Socorro	Star formation in merging galaxies: an age ordered sequence	3.6, 6 W/BG98, 65	3, 4, 7, 11, 13, 19	25.5
A0157	Omar, A. Anantharamaiah, K.R. Rupen, M.	RRI Raman NRAO-Socorro	OH in water megamaser galaxies	20	9	6.0
AP397	Perley, R.A. Condon, J.J. Cotton, W.D. Yin, Q.F. Wall, J.V. Kassim, N.E. Erickson, W.C.	NRAO-Socorro NRAO-CV NRAO-CV NRAO-CV Oxford NRL Maryland	4 Meter all-sky survey: Test observations	400 W/BV39, GM41	9, 25	72.0
AP422	Perlman, E. Jones, L. Scharf, C. Ebeling, H. Horner, D. Fairley, B.	STScI Birmingham (UK) STScI Hawaii GFSC/UM Birmingham	Radiogalaxies in clusters with redshifts 0.5 to 1.0	20	15, 21	16.5
AR435	Rudnick, L. Koralsky, B. Petre, R. Gotthelf, E. Holt, S.	Minnesota Minnesota NASA-GSFC Columbia NASA-GSFC	Cas A: probing the x-ray/radio connections	6	29	7.0
AR440	Rudnick, L. Young, A. Makishima, K. Tshiro, M. Iyomoto, N. Kassim, N. Worrall, D.	Minnesota Minnesota Tokyo Tokyo Toyko NRL Bristol	Radio lobe physics - radio spectra and inverse compton x-rays	90, 400	3, 4, 8	12.0
AR454	Rodriguez, L.F. Gomez, Y. Lopez, J.A.	UNAM UNAM UNAM	Time variation in the morphology of planetary nebula KJPN 8	3.6	30	8.0
AR457	Roy, S. Rao, A.P.	NCRA NCRA	Rotation measure observations of sources near the galactic center	3.6, 6 W/BV41	11, 13	12.0
AR458	Rupen, M.P.	NRAO-Socorro	Radio and x-ray activity in Galactic black hole X-ray transients	0.7, 1.3, 2, 3.6, 6, 20 W/TEST	1, 2, 4, 6, 7, 14, , 19, 20	14.3
AR459	Ratay, D. Gottesman, S.T.	Florida Florida	Barred spiral NGC 1784	20	1, 2, 6, 8, 23, 27	24.5
AS687	Soifer, B.T.	Caltech	the SIRTF First-look survey	20 W/GM41	25	7.5
AS697	Schoenmakers, A.P. Rottgering, H. deBruyn, A.G. Kaiser, C.R.	NFRA Dwingeloo Leiden NFRA MPIA-Garching	Structure and formation of double-double radio galaxies	3.6, 6, 20	1	14.0
AT236	Trotland, T.H. Crutcher, R.M. Plante, R.L. Roberts, D.A.	Kentucky Illinois Illinois Brandeis	OH Zeeman measurements in the central few parsecs of galaxy	20 line	12, 15, 16	22.0
AT256	Taylor, G. Peck, A.	NRAO-Socorro MPIFR	Searching for HI absorption in TX 2226-2475	20	19, 20	9.0

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Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
BV041	Venturi, T. Comastri, A. Fiore, F. Morganti, R. Pellegrini, S.	Bologna Bologna Rome Observatory NFRA Bologna	Radio galaxy PKS B1333-33	1.3, 2, 3.6 Single antenna VLBI w/AW551, AK509, AK518, AR457	12	8.0
GB036	Bartel, N. Bietenholz, M.F.	York York	SN 1979C in M100 in Virgo	20 Phased array VLBI w/MOVE/OP	22	12.4
GM038	McDonald, A.R. Pedlar, A. Muxlow, T.W.B. Diamond, P.J. Wills, K.A. Wilkinson, P.N. Garrett, M.A.	Jodrell Bank Jodrell Bank Jodrell Bank Jodrell Bank Sheffield U. Jodrell Bank JIVE	Second-epoch observations of compact supernova remnants in M82	20 Single antenna VLBI w/AK518, AF377, AK509, MOVE/OP, AF370, AC467, AD448	23	18.0
GM040	Marcaide, J.M. Guirado, J.C. Alberdi, A. Lara, L. Ros, E. Diamond, P. Shapiro, I.I. Preston, R.A. Schilizzi, R.T. Mantovani, F. Perez-Torres, M.A. Trigilio, C. Van Dyk, S. Weiler, K.W. Sramek, R.A. Whitney, A.R.	Valencia Valencia IAA IAA MPIfR Jodrell Bank CfA JPL JIVE Bologna Bologna Noto IPAC NRL NRAO-Socorro Haystack	Monitoring of the expansion of SN 1993J at 6 and 18cm	6, 20 Phased array VLBI	14	12.3
GM041	Morganti, R. Oosterloo, T. Vermeulen, R. Pihlstrom, Y. van Moorsel, G. Tadhunter, C. Wills, K.	NFRA NFRA NFRA Onsala NRAO-Socorro Sheffield Sheffield	Neutral hydrogen absorption in far IR starbursting radio galaxies	20 Single antenna VLBI w/AB876, AS687, AP397	24, 26	22.1
GO005	Owsianik, I. Peck, A. Schilizzi, R. Taylor, G. Conway, J.	MPIfR MPIfR JIVE NRAO-Socorro Onsala	The study of inner jet in 3C236	6, 20 Single antenna VLBI	13	12.0
GX007	Xanthopoulos, E. Browne, I. Wilkinson, P. Patnaik, A. Porcas, R.	Jodrell Bank Jodrell Bank Jodrell Bank MPIfR MPIfR	JVAS gravitational lens B1030+074	20 Phased array VLBI	19	10.4
W401	Frey, S. Gurvits, L. Gabuzda, D.C. Altschuler, D.R. Salter, C.J. Perillat, P. Aller, H.D. Aller, M.F. Hirabayashi, H. Davis, M.M.	FOMISGO JIVE JIVE Arecibo Arecibo Arecibo Michigan Michigan ISAS SETI Inst	Structural variability in the brightest AGN: AO 0235+164	6, 20 Phased array VLBI	2	8.8
W407	Slysh, V.I. Voronkov, M.A. Migenes, V. Fomalont, E.B. Shibata, K.M. Altunin, V.I.	ASC Lebedev ASC Lebedev Guanajuato NRAO-CV NAO-Mitaka JPL	Sensitive high resolution observations of OH maser spots	20 Phased array VLBI	6, 12	19.5
W409	Gabuzda, D.C. Pushkarev, A.B. Cawthorne, T.V.	JIVE Lebedev Lancashire	Polarization observations of BL Lac objects	6 Phased array VLBI	7	6.1
W418	Gurvits, L.I. Dennett-Thorpe, J. de Bruyn, A.G.	JIVE Groningen NFRA	Extremely variable IDV source J1819+3845	6 Phased array VLBI	16	10.5
STUDE	Reid, M.	CfA	Student observations		18	2.0

The average downtime was 4.6%.

The array was scheduled for 100.0% (673.9 hours)  
529.5 hours (78.6% of time) for astronomical programs  
90.0 hours (13.4% of time) for tests/calibration  
54.3 hours (8.1% of time) for maintenance  
Total 673.9 hours (100.0%) scheduled.

Array was in the BnA configuration from February 1 through February 20 .

Array was in the B configuration from February 20 through February 28.

Total number of programs was 88.

The following independent proposals shared simultaneous observing time (125.2 hours total simultaneous observing):

Projects	Hours
AB876/GM41	6.1
AC467/GM38	2.0
AD448/GM38	3.0
AF370/GM38	1.1
AF377/BB129	0.9
AF377/BG98	1.0
AF377/BV39	1.0
AF377/G5	1.0
AF377/GM38	1.0
AF377/TE25	1.4
AF382/BB129	4.1
AF382/BB129	4.2
AF383/BD69	7.8
AF383/BG98	5.1
AF383/G5	4.7
AH769/BV39	0.8
AK509/BV39	1.0
AK509/BV41	1.0
AK509/GM38	1.5
AK518/BB129	1.0
AK518/BV41	1.0
AK518/GM38	0.4
AK528/BASELINES	4.9
AM677/BV39	8.0
AN95/BG98	1.8
AN95/G5	3.7
AP397/BV39	3.2
AP397/GM41	11.4
AR457/BV41	1.4
AR458/TE25	1.5
AS687/GM41	4.7

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Program	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AA250	Augusto, P. Gonzales-Serrano, I. Gizani, N. Edge, A. Perez-Fournon, I.	Madeira Cantabria Madeira Durham IAC	Core identification in large compact symmetric objects	1.3	30	4.0
AB917	Blundell, K. Beasley, T. Close, L. Leahy, P.	Oxford OVRO Oxford Jodrell Bank	Multi-frequency high resolution study of hotspots: the key to understanding how classical double radio sources work	7, 1.3, 2, 90 2	23	2.0
AB969	Brisken, W. Thorsett, S. Goss, M.	Princeton Calif.-Santa Cruz NRAO-Socorro	Proper motion of the "Duck" pulsar B1757-24	20	22	5.2
AB971	Brand, J. Wouterloot, J.G.A.	Bologna Bonn	Very young UC HII regions WB89 380 and WB89 437	1.3, 2, 3.6 W/BG98	7	4.0
AB976	van Breugel, W. Lacy, M. de Vries, W. Stanford, A. Becker, B. Moran, E. Dawson, S. Golap, K. Dey, A. Januzzi, B. Eisenhardt, P. Stern, D. Rottgering, H. Morganti, R. Spinrad, H.	LLNL Calif.-Davis LLNL LLNL Calif.-Davis Calif.-Berkeley Calif.-Berkeley NRAO NOAO NOAO JPL JPL Leiden NFRA Calif.-Berkeley	NOAO deep wide field survey at 90cm	90 W/BK78	2, 4	16.5
AB977	Braatz, J. Greenhill, L. Sand, D.	NRAO-GB CfA Caltech	Maser disk in IC 1481	1.3	12	3.0
AB979	Blundell, K. Cruz, M.J. Rawlings, S.	Oxford Oxford Oxford	First z>4 radio quasars from a VLA 74 MHz survey	3.6	23	1.0
AB982	Blundell, K. Dubner, G. Mioduszewski, A. Kassim, N.	Oxford IAFE Sydney NRL	Imaging the W50-SS433 system at 74 MHz	400 W/BY12	5	12.5
AB984	Bolton, S.J. Sault, R.J. Levin, S. Klein, M. Bastian, T. Leblanc, Y. Dulk, G. Roller, J. McLeod, R.	JPL ATNF JPL JPL NRAO-CV Paris Obs Paris Obs Lewis Center Lewis Center	Multi-frequency radio observations of Jupiter	20, 90	2	11.0
AB989	Berger, E.	Caltech	Radio survey of bona fide and candidate brown dwarfs	3.6 W/BC111	25, 30	16.5
AC524	Cartwright, J.K. Taylor, G.B. Readhead, A.C.S. Pearson, T.J.	Caltech NRAO-Socorro Caltech Caltech	Polarization monitoring observations of 3C273	0.7, 1.3	24	3.0
AC560	Claussen, M. Brogan, C. Desai, K.M. Goss, M.	NRAO-Socorro NRAO-Socorro Renaissance Tech NRAO-Socorro	Scattering in the direction of 1720 MHz OH masers in W28	20, 18, 6 W/AC560, W308	15	4.0
AC562	Curiel, S. Trinidad, M.A. Torrelles, J.M. Canto, J. Rodriguez, L.F. Gomez, J.F. Ho, P.T.P.	UNAM UNAM Catalunya UNAM UNAM IAA CfA	Radio jet/water maser systems around YSOs	1.3	7	5.0
AD432	Dunlop, J.S. Ivison, R.J. Rowan-Robinson, M. Longair, M. Hughes, D.H. Blain, A.W.	Edinburgh University College Imperial College Cambridge INAOE Cambridge	UK SCUBA deep field	20 W/W308/BD69	14, 14, 20	40.0
AD438	Dennett-Thorpe, J. de Bruyn, A.G.	Groningen NFRA	A microarcsecond scintilator	1.3, 3.6, 6	7, 12	12.0

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Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AD441	Dwarkanath, K.S. Kassim, N. Owen, F. Perley, R.A.	Raman NRL NRAO-Socorro NRAO-Socorro	The radio halo of Virgo A at 74 MHz	400	18	10.0
AF370	Falcke, H. Brunthaler, A. Bower, G. Aller, M. Aller, H. Terasranta, H.	MPIfR MPIfR Calif.-Berkeley Michigan Michigan Metsahovi	III Zw 2, a superluminal jet in a spiral galaxy	0.7, 1.3, 2, 3.6, 20, 90	30	1.0
AF377	Fassnacht, C. Rusin, D. Xanthopoulos, E. Koopmans, L.	STScI Pennsylvania Jodrell Bank Caltech	Monitoring of JVAS and CLASS gravitational lenses	2, 3.6, 6  W/BK78/BC111	2-4,6,7,10-1 2,14,15,17,2 0,22,23,25,2 6,29-31	22.6
AG578	Greenhill, L.J. Moran, J.M. Reid, M.J. Holder, B.P.	CfA CfA CfA CfA	Water masers in the Orion BN/KL region	1.3 line	23	10.0
AH669	Rupen, M. Mioduszewski, A.	NRAO-Socorro NRAO-Socorro	Continued study of radio and x-ray activity in galactic black hole transients	20,6,3.6,2 ,1.3 W/BY12	5,10	3.0
AH685	Haarsma, D.B. Hewitt, J. Langston, G. Moore, C.	Calvin College MIT NRAO-GB Groningen	Time delay monitoring of gravitational lens 2016+112	3.6, 6	14	2.0
AH714	Hardcastle, M.J.	Bristol	Jets and the emission line gas around 3C171	1.3, 2	16	13.5
AH717	Hardcastle, M.J. Sakelliou, I.	Bristol Mullard	Jets and their termination in wide angle tail radio galaxies	3.6 W/W308	15	14.0
AH734	Hachisuka, K. Umemoto, T. Horiuchi, S. Miyoshi, M. Mochizuki, N.	Graduate University NAO NAO NAO Graduate University	Accurate positions of outer galaxy water masers	1.3	29	12.0
AH736	Hagiwara, Y. Henkel, C. Menten, K. Nakai, N.	MPIfR MPIfR MPIfR NAO	Water maser emission in M51	1.3 line	23	2.5
AH737	Hardcastle, M.	Bristol	X-ray detected hot spot in 3C 263	2	3	1.5
AI084	Ivison, R.J. Dunlop, J.S. Smail, I. Jenner, C.E. Dey, A.	University College Edinburgh Durham University College NOAO	Surveying the fields of high redshift radio galaxies	20	21	10.0
AI085	Ishihara, Y. Nakai, N. Sato, N. Diamond, P.	NAO NAO NAO Jodrell Bank	Determining positions of water maser emission in AGN	1.3	22	4.0
AJ277	Johnston, K.J. Fey, A.L. Gaume, R.A. Claussen, M.J.	USNO USNO USNO NRAO-Socorro	Astrometric and polarization measurements of the T Tau system	0.7, 1.3, 2, 3.6, 6 W/W35	19	12.0
AK496	Kronberg, P.P. Sramek, R.A. Allen, M.A. Birk, G.T.	Toronto NRAO-Socorro Toronto Munich	Extending the M82 compact source monitoring to 19 years	6	12	7.5
AK509	Kulkarni, S.K. Frail, D. Galama, T.J. Bloom, J.S. Berger, E. Harrison, F.A.	Caltech NRAO-Socorro Caltech Caltech Caltech Caltech	Radio afterglows from gamma ray bursts	3,4,6,9,12,1 4,20,22,25,2 9-31 W/W35/BC111	27.1	
AK518	Koopmans, L.V.E. de Bruyn, A.G. Fassnacht, C.D. Wambsganss, J. Blandford, R.D.	Caltech NFRA STScI Potsdam Caltech	Radio microlensing in B 1600+434	2, 3.6, 6, 20	6, 12, 19, 23, 26	5.0
AL525	Lim, J. Carilli, C. White, S.M.	Academia Sinica NRAO-Socorro Maryland	Resolving red supergiant stars	0.7, 1.3 W/W308/W35	1, 15, 16, 18, 20, 21	33.7

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Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AL529	Lacey, C. Kassim, N. Dyer, K. Brogan, C. Dwarakanath, K. Anantharamaiah, K.R. Bhatnagar, S.	NRL NRL NCSU NRAO-Socorro Raman Raman NCRA-Pune	Low frequency observations of galactic SNRs	400, 90	13	8.0
AL532	Londish, D. Sadler, E. Boyle, B. Croom, S.	Sydney Sydney AAO AAO	Optically selected BL Lacs	6	28	14.5
AL539	Liszt, H.	NRAO-CV	Cold HI in the inner galaxy	20	29	1.5
AM665	McHardy, I. Uttley, P.	Southampton Southampton	Radio variability of the Seyfert galaxy NGC 4051	3.6, 6 W/W35	20, 31	2.0
AM670	Morganti, R. Oosterloo, T. Capetti, A. Parma, P. Wills, K. deRuiter, H. Fanti, R.	NFRA NFRA Torino Bologna Sheffield U. CNR - Bologna Bologna	HI absorption lines FRI radio galaxies	20 line	14	2.5
AM673	Mohan, N.R. Anantharamaiah, K.R. Goss, M.	Raman Raman NRAO-Socorro	Search for free-free absorption in Starburst nuclei at 330 MHz	90	21	10.0
AN098	Nagar, N.M. Wilson, A.W. Falcke, H.	Maryland Maryland MPIFR	Census of accreting black holes in nearby galaxies	2, 3.6	13	14.0
A0156	Owen, F. Morrison, G. Small, I. Ivison, R. Oemler, G. Dressler, A. Ledlow, M.	NRAO-Socorro IPAC Durham University College Carnegie Obs. Carnegie Obs. Gemini	Extremely deep survey of the CL 0939+47 field	20 , 22 W/BK78/BY12/BG98	3-7, 10, 11, 17	48.5
AP395	Perlman, E. Landt, H. Padovani, P.	STScI STScI STScI	X-ray bright flat spectrum radio quasars	20	10	6.0
AR440	Rudnick, L. Young, A. Makishima, K. Tshiro, M. Iyomoto, N. Kassim, N. Worrall, D.	Minnesota Minnesota Tokyo Tokyo Toyko NRL Bristol	Radio lobe physics - radio spectra and inverse compton x-rays	6, 20, 90	4, 6, 18	14.0
AR448	Reipurth, B. Rodriguez, L.F. Anglada, G. Bally, J.	Colorado UNAM IAA Colorado	Multiplicity and dynamical processes in early stellar evolution	3.6	6	8.0
AR452	Rottgering, H. Schoenmakers, A. Best, P. Kassim, N. Perley, R. Pierre, M. Regrigier, A. Rengelink, R. Birkinshaw, M. Bremer, M. Liang, H. Zanichelli, A.	Leiden NFRA Dwingeloo IfA NRL NRAO-Socorro Saclay Saclay Leiden Bristol Bristol Bristol Milano	Radio source population and the XMM large scale structure survey	90 W/BY12	5, 11	8.6
AR458	Rupen, M.P. Mioduszewski, A.J. Dhawan, V.	NRAO-Socorro Sydney NRAO-Socorro	Radio and x-ray activity in Galactic black hole X-ray transients	0.7, 1.3, 2, 3.6, 6, 20	12, 17, 19, 25	8.5
AR460	Reese, E. Carlstrom, J.	Chicago Chicago	Point source survey of galaxy cluster fields	3.6, 6 W/MOVE/OP/BB129	27	24.0
AS568	Sramek, R. Weiler, K. VanDyk, S. Panagia, N.	NRAO-Socorro NRL UCLA STScI	Properties of radio supernovae	1.3, 2, 3.6, 6, 20	24	12.1
AS696	Su, Y.-N. Lim, J. Ho, P.T.P.	NCU (Taiwan) Academia Sinica CfA	Water masers associated with High mass protostars	1.3 W/BG98	7, 15	4.5

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Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
AS701	Sokoloski, J.L. Kaiser, C. Charles, P.A.	Southampton MPIA-Garching Southampton	Symbiotic binaries during outburst	3.6, 6, 20	12	3.0
AS704	Saunders, R. Cotter, G. Jones, M. Grainge, K. Pooley, G. Waldrum, E. Taylor, A.	Cambridge Cambridge Cambridge Cambridge Cambridge Cambridge Cambridge	SEDS of sources from the Cambridge 15 - GHz survey	0.7, 1.3, 6, 20 W/BC111	25	10.0
AZ129	Zhao, J.-H. Bower, G. Goss, M. McGary, R.S.	CfA Calif.-Berkeley NRAO-Socorro Harvard	VLA Monitoring Sgr A*	0.7, 1.3, 2 W/MOVE/OP	11, 19, 26, 29	5.0
BB129	Brogan, C. Claussen, M. Goss, M.	NRAO-Socorro NRAO-Socorro NRAO-Socorro	VLBA Zeeman observations of OH masers associated with SNRs	18 W/AR460	27	4.2
BC111	Cotton, W.D. Mennesson, B. Vlemmings, W. Perrin, G. Coude du Foresto, V. Chagnon, G. Diamond, P.J. van Langevelde, H.J. Ridgway, S. Morel, S. Traub, W. Carleton, N. Lacasse, M. Waters, R.	NRAO-CV Leiden Leiden Meudon Paris Obs. Paris Obs. Jodrell Bank JIVE NOAO CfA CfA CfA CfA Amsterdam	Bright O-rich Mira stars	0.7 Single antenna VLBI W/AS567/AR458/AF377/AB989/AK5 D9/AS704	25	18.3
BD069	Diamond, P.J. Kemball, A.J.	Jodrell Bank NRAO-Socorro	TX Cam: the final curtain	0.7 Single antenna VLBI W/AD432	3, 20	10.1
BG097	Gudel, M. Audard, M. Beasley, A.J. Benz, A.O. Brinkman, A. Mewe, R. Savin, D.	Paul Scherrer Paul Scherrer OVRO ETH Utrecht Utrecht Columbia	Bright RS CVn sources during XMM observations	3.6, 6 Phased array VLBI	26	12.0
BG098	Greenhill, L.G. Diamond, P.J. Moran, J.M.	CfA Jodrell Bank CfA	Maser motions in Orion BN/KL	0.7 Single antenna VLBI W/AB971/AS696/A0156	7	8.0
BK078	Kellermann, K. Vermeulen, R. Zensus, A. Cohen, M.	NRAO-CV NFRA MPIfR Caltech	1345+125: an unusual AGN with a double nucleus and strong CO	6, 2 single antenna VLBI W/A0156/AB976/AF377	4	10.6
BY012	Yi, J. Booth, R.S. Winnberg, A. Humphreys, E.M.L. Conway, J. Diamond, P.J.	Onsala Onsala Onsala Onsala Onsala Jodrell Bank	v=1 and v=2 SiO masers in Mira variables R Cas and TX Cam	0.7 Single antenna VLBI W/AB982/AR452/AH669/A0156	5	10.1
W035	Gurvits, L.I. Frey, S. Schilizzi, R.T. Kellermann, K.I. Lobanov, A.P. Moran, E.C. Laurent-Muehleisen, Pauliny-Toth, I.I.K.	JIVE FOMISGO JIVE NRAO-CV MPIfR Calif.-Berkeley Calif.- Davis MPIfR	Structure of extremely high redshifted quasars	6 Single antenna VLBI W/AJ277/AM665/AK509/AL525	20	6.1
W088	Roberts, D.H. Moellenbroek, G.A. Wardle, J.F.C. Gabuzda, D.C. Brown, L.F.	Brandeis NRAO-GB Brandeis JIVE Connecticut	Polarization monitoring of four bright quasars at 5 and 1.6 GHz	18 Phased array VLBI	11	7.0

## VLA Utilization Report January 2001

Prog#	Observer	Affiliation	Program Title	Bands cm	Observing Date	Sched Hours
W094	Hirabayashi, H. Wehrle, A. Unwin, S. Makino, F. Kii, T. Kobayashi, H. Edwards, P. Okayasu, R. Valtorta, E.	ISAS IPAC JPL ISAS ISAS NAO ISAS ISAS Tuorla	3C279	6 Phased array VLBI	10	8.5
W308	Minter, A.H. Langston, G. Ghigo, F. Perlman, E.	NRAO-GB NRAO-GB NRAO-GB STScI	Monitoring PKS 1413+135	6, 20 Single antenna VLBI W/AD432/AL525/AC560/AH717/AL525	15, 16	18.7
	Staff	NRAO	Baselines, Pointing, Delays Maintenance Move/Operations New Years Shutdown Planned power outage Software General tests		1 23	41.5 56.3 33.1 16.0 0.0 27.4 30.0

The average downtime was 3.2%.

The array was scheduled for 97.9% (730.1 hours)  
553.6 hours (74.2% of time) for astronomical programs  
92.8 hours (12.4% of time) for tests/calibration  
83.7 hours (11.2% of time) for maintenance  
Total 710.3 hours (95.2%) scheduled.

Array was in the A configuration from January 1 through January 23 .

Array was in the BnA configuration from January 23 through January 31.

Total number of programs was 63.

The following independent proposals shared simultaneous observing time (104.7 hours total simultaneous observing):

Projects	Hours
AB976/BK78	8.0
AB982/BY12	3.7
AB989/BC111	7.5
AC560/W308	3.5
AD432/BD69	8.1
AD432/W308	5.5
AF377/BC111	1.0
AF377/BK78	0.8
AH669/BY12	1.5
AH717/W308	1.1
AJ277/W35	1.8
AK509/BC111	1.0
AK509/W35	2.5
AL525/W308	1.0
AL525/W308	7.6
AL525/W35	0.8
AM665/W35	1.0
AO156/BG98	2.5
AO156/BK78	1.8
AO156/BY12	0.9
AR452/BY12	4.0
AR458/MOVE/OP	2.0
AR460/BB129	4.2
AR460/MOVE/OP	1.7
AR460/MOVE/OP	10.7
AS568/BC111	1.1
AS568/MOVE/OP	9.7
AS696/BG98	2.5
AS704/BC111	5.7
AZ129/MOVE/OP	1.5