

<u>Observer</u>	<u>Program</u>
P. Wannier (Caltech)	Study of nucleosynthesis in stars and in the galactic center.
R. Willson (Tufts) K. Lang (Tufts)	Search for CO emission from Wolf-Rayet stars.
W. Wilson (Aerospace) R. Kakar (JPL) M. Klein (JPL)	Observations of CO in Venus and other planets.

Very Large Array

The array was scheduled for observations 57 percent of the time in the last quarter of 1978. Forty percent of the time was devoted to astronomical observing and the remaining 17 percent to instrumental development and tests. Approximately 11 percent of the observing time was lost to instrumental problems. The following research programs were conducted with the VLA during this quarter.

<u>Observer</u>	<u>Program</u>
B. Balick (Washington) E. Wollman (KPNO) H. Smith (Arizona)	Attempt to detect the Becklin-Neugebauer object.
G. Berge (Caltech) D. Muhleman (Caltech)	Six centimeter observations of Uranus.
A. Bridle (Queens) E. Fomalont G. Miley (Leiden) R. Perley A. Willis (Brandeis) J. Högbom (Stockholm)	Objects with both large- and small-scale structure: 3C 315, 3C 31 and NGC 1052.
A. Bridle (Queens) E. Fomalont R. Perley A. Willis (Brandeis) W. van Breugel (Leiden)	Maps of the radio jet galaxies B2 0844+319 and 3C 310 at 6 and 2 cm.
J. Broderick (VPI & SU) R. Brown J. Condon (VPI & SU) J. Ledden (VPI & SU)	Structure of faint sources selected at 6 cm.

<u>Observer</u>	<u>Program</u>
B. Burke (MIT)	Confirmation of x-ray radio identifications of high latitude objects suggested by SAS-3/300-ft observations. All bands.
B. Burke (MIT) P. Greenfield (MIT)	The x-ray galaxy NGC 2110, 2 and 1.3 cm observations.
E. Churchwell (Wisconsin) D. Abbott (Wisconsin) J. Biegging (Berkeley) J. Cassinelli (Wisconsin)	Observations of stars to study mass loss.
P. Crane R. M. Price (NSF)	Four-frequency fluxes of the compact nuclei of NGC 3031, NGC 3034, and NGC 4594.
W. Erickson (Maryland) J. Rickard (Clark Lake) W. Cronyn (Clark Lake) R. Perley	Six- and 20-centimeter observations of "Scintars"--low latitude strongly scintillating objects.
D. Florkowski (Florida) S. Gottesman (Florida)	Observations of the Wolf-Rayet binary HD193793 and of star Zeta Pupis at 2, 6, and 20 cm.
E. Fomalont G. Miley (Leiden)	Twenty-centimeter structure of 3C 318.1, an extremely steep spectrum source.
R. Hjellming N. Vandenberg (Goddard)	Observations of Nova Vulpecula 1976, at 2, 6, and 20 cm.
R. Hjellming R. Newell (NMIMT)	Six-centimeter observations of old novae-- FH Serpentis 1970, HR Delphini 1967, and V1500 Cygni 1975.
K. Johnston (NRL) C. Wade F. Owen	Stellar astrometry at 6 cm.
P. Kronberg (Toronto) J. Clarke (Toronto) M. Burbidge (San Diego)	Maps of the high-z QSO's 3C 280.1 and 3C 205. Six and 20 cm.
K. Lang (Tufts)	Solar observations at 6 and 21 cm to study flare buildups.
F. Owen P. Hardee (Virginia)	Jet galaxy NGC 7385. Six-centimeter observations. Virgo A. Two-centimeter observations.

<u>Observer</u>	<u>Program</u>
F. Owen L. Rudnick J. Burns	Sources in clusters of galaxies.
R. Perley K. Johnston (NRL)	Weak halos of compact objects at 20 cm.
A. Readhead (Caltech) R. C. Bignell P. Napier	Observations of 3C 147 at 1.3 and 2 cm.
M. Reid D. Shaffer B. Rayhrer	Observations at 1.3 and 2 cm of the compact HII regions W3(OH) and W75.
L. Rickard S. Spangler P. Bowers	Six-centimeter narrow-band observations of the excited OH maser in W3.
L. Rudnick F. Owen W. Stein (Minnesota) J. Puschell (Minnesota) J. Warner (Marshall Sp. Fl. Ctr.) T. Jones (Minnesota)	Polarization of compact sources--spectral characteristics over radio, infrared and optical regimes.
W. Sanders (New Mexico State) B. Clark	Six-centimeter search for emission from Hyades stars.
M. Schneps (MIT) A. Haschick (Center for Astrophys.) J. Moran (Center for Astrophys.)	Observations of Wolf-Rayet shell stars--NGC 2359, MWC 297, GL 2104 and GL 2179 at 6 and 21 cm.
H. Schnopper (SAO) J. Moran (Center for Astrophys.) R. Hjellming	Search for radio emission from galaxies and clusters of galaxies near SAS-3 x-ray positions.
A. R. Thompson	Observation of planetary nebulae NGC 6543 and NGC 7662 at 2 and 6 cm.
B. Turner F. Owen	Observations in the OH lines to measure positions of maser sources.