

S13b Positions of VSOP-survey and Arecibo-Survey Sources

木村守孝 (東大天文)、Edward Fomalont(ISAS)、井上允 (国立天文台)

There are two large samples of sources which will be observed by HALCA. The VSOP survey contains about 300 flat-spectrum sources at 5 GHz with a total flux density > 1.0 Jy and a correlated flux density > 0.4 Jy at 140 million wavelengths. The second sample of 200 weaker sources are in a declination band near 30 degrees so that they can be observed with Arecibo and HALCA.

In order to determine which of the sources are suitable for HALCA observations, we used the VLBA on June 5, 1996 (the VSOP survey sample) and December 19, 1996 (The Arecibo Sample). We observed with 8 different frequencies between 4.6 GHz to 5.1 GHz, each with 8 MHz bandwidth and 6 minutes of time. With the large spanned bandwidth of 0.5 GHz we have accurately measured the group delay of sources. After calibration of the data using strong calibrator sources of known position, we fit the residual group delay for the sources which large residuals, and obtained their position offset from the observed phase center. Most sources produced very accurate positions, with the position error less than 0.01 arcsec for the stronger, small-diameter sources. VLBI images for these sources will be reported by P. Edwards et al. Average difference between former positions and new positions is 0.2 arcsec.