An unbiased hard X-ray survey of the nearest Seyfert 2 nuclei

M.J. Westmore, R. Gurriaran, A.J. Dean, F. Lei, A. Malizia (University of Southampton), L. Bassani, J.B. Stephens (Instituto TeSRE/CNR), B. A. Harmon (NASA/MSFC), M. L. McCollough (USRA/ES84/SSL)

The BATSE Earth Occultation data has been successfully used to study the temporal and spectral properties of a mini- sample of Seyfert 2 galaxies in the 20-100 keV energy over a period of 9 years. The sample used is the Maiolino and Rieke sample restricted in distance to those objects (28) located within 40 Mpc from Earth. Of the 18 sources so far analysed 11 were detected at greater than 5 sigma level; some of these are new detections in the X-ray band. Preliminary results of this study will be presented including light curves, spectra and images. To enlarge the scope of our study we also present a comparison with our data with data obtained by other instruments operating in the X-/gamma-ray band. The implications of these results to the Unified Model of AGN, the Seyfert 2 luminosity function, and the LogN-logS relation is discussed.