CORE

N92-13652

THE SERENDIP II SETI PROJECT: CURRENT STATUS

C. S. Bowyer, D. Werthimer, C. Donnelly, W. Herrick and M. Lampton
Space Sciences Institute, University of California, Berkeley

Over the past 30 years interest in extraterrestrial intelligence has progressed from philosophical discussion to rigorous scientific endeavors attempting to make contact. Since it is impossible to assess the probability of success and the amount of telescope time needed for detection, SETI projects are plagued with the problem of attaining the large amounts of time needed on the world's precious few large radio telescopes. To circumvent this problem, the SERENDIP instrument operates autonomously in a piggyback mode utilizing whatever observing plan is chosen by the primary observer. In this way large quantities of high-quality data can be collected in a cost-effective and unobtrusive manner.

During normal operations, SERENDIP logs statistically significant events for further off-line analysis. Due to the large number of terrestrial and near-space transmitters on earth, a major element of the SERENDIP project involves identifying and rejecting spurious signals from these sources. Another major element of the SERENDIP project (as well as most other SETI efforts) is detecting ETI signals. Events selected as candidate ETI signals are studied further in a targeted search program which utilizes between 24 to 48 hours of dedicated telescope time each year.