



Preparing for the next ICRF

C. Ma

Goddard Space Flight Center [cma@gemini.gsfc.nasa.gov/1-301-614-6099]

The ICRF (International Celestial Reference Frame) is the realization of the ICRS (International Celestial Reference System) that is the ultimate basis for all current Earth orientation measurements, both terrestrial and celestial. The VLBI data and analysis leading to the ICRF were completed in 1995. Since then there have been considerable refinements in both areas. A monitoring program is in place to increase the data set for identified stable and potentially stable sources. Over the next few years a number of steps will be taken to generate the next radio realization of the ICRS. These include: a) enhancement of the geophysical and astronomical modeling, b) comparison of source catalogs from VLBI analysis centers using a variety of approaches and software to identify systematic errors, c) time series analysis of past and as-available data to identify the set of defining sources for the next realization, and d) discussion on the final analysis configuration, particularly for the data to be included, troposphere modeling, treatment of unstable sources, and whether a combination of normal matrices of individual solutions is better than a single selected solution.