Processing Software Summary - GAMIT/GLOBK

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The Department of Earth, Atmospheric, and Planetary Sciences at the Massachusetts Institute of Technology (MIT) is funded by the National Science Foundation (NSF) to support investigators using the GAMIT and GLOBK processing software. MIT's efforts include training for investigators and their overseas collaborators, and improving the capability, reliability, user interfaces, and documentation of the software.

GAMIT and GLOBK are a comprehensive suite of programs for analyzing GPS measurements primarily to study crustal deformation. The software has been developed by MIT, Scripps Institution of Oceanography, and Harvard University with support from the National Science Foundation.

GAMIT is a collection of programs used for the analysis of GPS data. It uses the GPS broadcast carrier phase and pseudorange observables to estimate three-dimensional relative positions of ground stations and satellite orbits, atmospheric zenith delays, and earth orientation parameters. The software is designed to run under any UNIX operating system.

GLOBK is a Kalman filter whose primary purpose is to combine various geodetic solutions such as GPS, VLBI, and SLR experiments. It accepts as data, or "quasi-observations" the estimates and covariance matricies for station coordinates, earth-orientation parameters, orbital parameters, and source positions generated from the analysis of the primary observations. The input solutions are generally performed with loose a priori uncertainties assigned to all global parameters, so that constraints can be uniformly applied in the combined solution.

GAMIT/GLOBK may be obtained without written agreement or royalty fee by individuals, universities, and government agencies for any non-commerical purpose. To obtain the download password and be chandler.mit.edu). You must include in the e-mail the full name, address, and telephone and fax numbers of your institution.

chandler.mit.edu) by e-mail or access the GAMIT/GLOBK Web at http://www-gpsg.mit.edu/~simon/gtgk/docs.htm.

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