

**MWD**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

**Date:** November 14, 2002  
**To:** Dr. Frank Webb, Jet Propulsion Laboratory  
**From:** Michael A. Duffy, Geodetic Engineer, MWD of Southern California  
**Subject:** GPS Data Products for Solid Earth Science Research and Applications

As you know, the Metropolitan Water District of Southern California has had a long standing working relationship with the Southern California Integrated GPS Network (SCIGN) over the past eight years that has benefited both organizations. The installations of 19 Continuous Operating Reference Stations (CORS) on Metropolitan property have helped us reduce our surveying overhead costs, especially in the area of deformation monitoring and control surveys. The unique vertical sensitivity of our water delivery systems demands us to continue pursuing all available means to identify deformations and strains in our tectonically active service area.

In the area of emergency response, Metropolitan has had an ongoing dialogue with the USGS through our Emergency Response Center concerning GPS data products that could be provided to us following an disaster, be it natural or man-made. SCIGN's ability to produce and deliver products such as: geodetic time series, deformation velocity fields, strain rate maps, fault models, near real-time earthquake response information and aquifer recharge modeling, have valuable uses within our organization.

Our company is very interested and supportive of SCIGN expanding both the utility and availability of GPS and higher-level data products. We are also interested in pursuing ways to protect the availability of these SCIGN products against interruption in emergency situations. With this type of partnership Metropolitan could guarantee our customers a faster resumption of normal service after an earthquake or other major event.

A handwritten signature in black ink that reads "Michael A. Duffy". The signature is fluid and cursive, with the first letters of each word being capitalized and prominent.

Michael A. Duffy, PLS  
Field Survey & Geometronics Team