

**Rapid, Precise, and Economical Analysis of Data from the
Southern California Integrated GPS Network**

J. F. Zumberge ; R.J. Muellerschoen ; M.M. Watkins (Jet Propulsion
Lab, Pasadena, CA, 911 0 9 ; ph. 818-354-6734; e-mail:
jfz@cobra.jpl.nasa.gov)

The number of permanently operating precision GPS receivers in the
Southern California Integrated GPS Network (SCIGN) has increased
dramatically in the past year to several dozen; the number is expected
to increase to hundreds within a few years or less.

A prototype system to process all of these data, accurately, rapidly,
and economically, has been in operation since May 1995. The system
consists of three independent components: (1) automated analysis of
data from a global network of precision GPS receivers, within 1 day
of data retrieval, to determine precise GPS satellite ephemerides and
clocks; (2) automated analysis of data from SCIGN sites, within 1 day
of data retrieval or 1 day of results from (1), whichever occurs later;
and (3) presentation of the results.

The system has negligible ongoing labor costs and provides few-mm
horizontal and 1-cm vertical precision in absolute coordinates. Data
from more than 1 00 sites are routinely analyzed every day.

A description of the system's components will be presented, together
with a discussion of the steps required to reduce the turn-around time
from a few days to a few hours.

**American Geophysical Union
Abstract Form**

Reference # 0000
Session 0.00

1. 1995 Fall Meeting
2. 01 0825527
3. (a) J. F. Zumberge
JPL 238-600
4800 Oak Grove Dr
Pasadena, CA 91109
jfz@cobra.jpl.nasa.gov
(b) 818-354-6734
(c) 818-393-4965
4. G
5. (a) G02 Southern California
Earthquake Geodesy
(b) 1294,1209,1229
(c)
6. K/A
7. 0% published elsewhere
8. Charge \$50 to James F. Zumberge
AMEX card 3781 46151 01000,
expires 06/97
9. C, Program chair: Andrea
Donnellan
10. No special instructions
11. Regular author

Date received: 25 JUL 95
Date formatted: September 6, 1995
Form version: 1.3