



# PROPOSAL COVER PAGE

(Date : Nov 19, 2002)

**REASON-0156-0039**

**Name of Submitting Institution:** Jet Propulsion Laboratory

**Congressional District:** 27

**Certification of Compliance with Applicable Executive Orders and U.S. Code**

By submitting the proposal identified in this Cover Sheet/Proposal Summary in response to this Research Announcement, the Authorizing Official of the proposing institution (or the individual proposer if there is no proposing institution) as identified below:

- certifies that the statements made in this proposal are true and complete to the best of his/her knowledge;
- agrees to accept the obligations to comply with NASA award terms and conditions if an award is made as a result of this proposal; and
- confirms compliance with all provisions, rules, and stipulations set forth in the two Certifications contained in this NRA [namely, (i) Assurance of Compliance with the NASA Regulations Pursuant to Nondiscrimination in Federally Assisted Programs, and (ii) Certifications, Disclosures, And Assurances Regarding Lobbying and Debarment & Suspension]. Willful provision of false information in this proposal and/or its supporting documents, or in reports required under an ensuing award, is a criminal offense (U.S. Code, Title 18, Section 1001).

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**[1] ... PI Information**

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PI Signature and Date:

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<b>Institution:</b>			
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AO Signature and Date:

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**[2] ... Team Member**

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**[3] ... Proposal Title (Short and/or Full)**

<b>Short Title:</b>	GPS Data Products for Solid Earth Science
<b>Full Title:</b>	

**[4] ... Proposed Start/End Date**

<b>Start Date:</b>	02/01/2003
<b>End Date:</b>	12/31/2007

**[5] ... Science Areas**

Applications/Type I Research SEEDS Open Source
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**[6] ... Summary**

Over the past decade, regional and global networks of continuously operating GPS ground stations have been deployed to monitor Solid Earth deformation , and to support Earth Science Enterprise (ESE) priorities and flight projects. At the forefront, and the focus of this project, is the 250-station Southern California Integrated GPS Network (SCIGN), a multi-agency effort jointly sponsored by NASA, NSF, USGS, and the W.M. Keck Foundation, under the umbrella of the Southern California Earthquake Center (SCEC). Over the next five years, SCIGN will become an integral part of the multi-agency, multi-disciplinary Plate Boundary Observatory (PBO), an observatory of high-precision geodetic instruments spanning western North America. This project is intended to solidify NASA's participation in PBO and the larger NSF-lead EarthScope initiative while concurrently meeting objectives of NASA's ESE.

Currently, SCIGN provides GPS data and metadata and only low-level data products. We propose to enhance delivery of these products using modern IT methodology, and to produce and disseminate an entirely new set of higher-level data products to a larger community, including scientists, government agencies (Federal, State, and Local), surveyors, and GIS mappers. This project will build on current capabilities within SCIGN for data archiving, information systems, and data analysis to disseminate the following products: geodetic position time series, crustal motion models, strain rate maps, geologic fault models, near-real-time earthquake response information, geodetics reference systems for precise GIS and surveying, and aquifer recharge monitoring.

To provide these data and data products in a highly available, highly integrated system numerous improvements in archiving, end-user interfaces, delivery mechanisms and data modeling will be developed. As part of the development of these advanced information systems components we propose an optional open source project based on a redundant, multi-tiered "Virtual Archive" for GPS applications.

**[7] ... Budget**

Type	Year 1	Year 2	Year 3	Year 4	Year 5	Total
<b>Direct Labor</b>	\$188.00	\$269.00	\$260.00	\$305.00	\$273.00	\$1,295.00
<b>Other Direct Costs - Subcontracts</b>	\$725.00	\$725.00	\$704.00	\$709.00	\$719.00	\$3,582.00

<b>Other Direct Costs - Consultants</b>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Other Direct Costs - Equipment</b>	\$4.00	\$1.00	\$3.00	\$0.00	\$0.00	\$8.00
<b>Other Direct Costs - Supplies</b>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Other Direct Costs - Travel</b>	\$10.00	\$10.00	\$10.00	\$10.00	\$7.00	\$47.00
<b>Other Direct Costs - Other</b>	\$105.00	\$142.00	\$136.00	\$157.00	\$141.00	\$681.00
<b>Indirect Costs</b>	\$74.00	\$86.00	\$85.00	\$93.00	\$90.00	\$428.00
<b>Other Applicable Costs</b>	\$16.00	\$17.00	\$16.00	\$17.00	\$16.00	\$82.00
<b>Subtotal - Estimated Costs:</b>	\$1,122.00	\$1,250.00	\$1,214.00	\$1,291.00	\$1,246.00	\$6,123.00
<b>Less: Proposed Cost Sharing - Cost Sharing:</b>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>Budget Total</b>	<b>\$1,122.00</b>	<b>\$1,250.00</b>	<b>\$1,214.00</b>	<b>\$1,291.00</b>	<b>\$1,246.00</b>	<b>\$6,123.00</b>

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