Bay Area drivers can use cell phones to avoid traffic snarls

We all know that talking on a cell phone while driving can be a safety hazard. But beginning October 23, Bay Area drivers may find their cell phones useful in shortening their commute times. Participants in a landmark traffic monitoring project will be able to use their GPS-equipped cell phones to transmit traffic data as they drive, and in return will receive personalized real-time traffic information, including travel-time estimates, speeds along their routes and traffic reports, to help them avoid congestion.

Dubbed the Mobile Millennium Project, it's part of a $12.4 million partnership that includes UC Berkeley, Nokia, transportation authorities at the federal, state and local levels and mapmaker Navteq.

As they drive their regular routes around the Bay Area, the study's 10,000+ drivers will provide a steady stream of data to a computer system developed at the Nokia Research Center in Palo Alto, which will translate the data into driver-friendly information and transmit it back via screen or voice (in compliance with California's hands-free law).

Drivers wanted

Initial participants will be drivers who commute to the Lake Tahoe area, noted Alexandre Bayen, assistant professor of systems engineering in the Civil and

Douglas Putnam photo

Earlier road tests have shown that having just a small percent of cars transmitting data produces a comprehensive real-time traffic picture.

Environmental Engineering department at UC Berkeley. Bayen, who is affiliated with the campus' California Center for Innovative Transportation, worked with a group of Ph.D. students at the university to create the algorithms being used in the project. "The goal is to obtain data from participants driving their own cars along their own routes, and in particular to capture data on the Friday and Sunday rush hours along the I-80 corridor," he said.

In the future, Bayen envisions a broad network of volunteer participants throughout the Bay Area as well. Participants with compatible GPS-equipped cell phones from many manufacturers will simply need to download the free software once it's made available in the fall.

"We've created mathematical tools to translate GPS data into valuable information for drivers," Bayen said. The resulting time savings may be planet-friendly too: Bayen noted that if drivers can plan their trips based on accurate traffic knowledge, they'll reduce fuel use and emissions.

☞ *To obtain the free traffic-monitoring software, along with updates on the project, visit* **traffic. berkeley.edu**.