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Test program guides travelers by cell phone

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And a cell phone shall guide them this holiday season.

You may think California officials frown on cell phones in cars these days, given the state's recent ban on the hand-held version of said instruments.

Not entirely so.

Ironically, highway officials are inviting Northern California drivers, notably those headed to Tahoe for the holidays, to turn their devices on.

This time, it's not to chat. It's for the greater good of your fellow travelers.

The state Transportation Department and partners are experimenting with what they call Traffic Pilot, software that allows your phone to signal your speed to cars behind you.

You, in turn, can view a real-time color-coded map on your cell phone showing how fast traffic ahead is going.

Sponsors say it's a major step toward "real time" tools to battle congestion, basically turning car cabins into commute command centers. Phones can be programmed to give drivers verbal warnings about problems ahead.

The program launch two weeks ago immediately attracted more than 3,000 drivers, mainly in the Bay area.

Sacramentan Brian Simi, a Caltrans employee and tech fan, loves the program, but noted a kink.

"On Highway 99 the other day, it wasn't completely accurate," he said. "It said traffic (was slowing), but it was free-flow."

Accuracy will improve with more participants, said Tom West of Roseville, whose agency, the California Center for Innovative Transportation, partners on the program with Caltrans, digital mapmaker NAVTEQ and cell phone manufacturer Nokia.

The system not only gives drivers a virtual view miles ahead on freeways, but also on big surface streets like Arden Way or Watt Avenue.

Success, however, will require overcoming fears some have about personal privacy, researchers acknowledge, including worries the system can track an individual's whereabouts or set a driver up for a speeding ticket.

West said the program is designed so that can't happen. Cell phone readings are encrypted so

that program operators or police can't track any particular vehicle, West said. The signals are merged at a central computer, mixed with other data and relayed back to drivers as an average speed for all vehicles on a section of road, not for individual cars.

West said the Interstate 80 corridor is among the initial pilot focus areas.

"There is a lot of (roadwork) on the corridor," he said. "How nice would it be to offer information along there? It's like comfort food."

The system currently works with only certain GPS-enabled "smart" cell phones. Sponsors say they intend to make it compatible soon with iPhones.

Although users can send and receive calls while using the program, Caltrans recommends leaving the phone in a dashboard cradle.

California Highway Patrol spokeswoman Fran Clader said holding the phone to view its map technically does not appear to violate the law against talking on a hand-held phone.

But, she said, "if someone is looking at the device and swerving on the road, that could be cause to pull them over."

Using electronics to estimate travel time is not new.

To post estimated travel times on freeway signs, Caltrans already uses pavement sensors and has added some speed cameras and lasers.

But adding cell phones to the mix makes the system cheaper and more accurate and expands its reach beyond urban freeways, Caltrans' Randy Iwasaki said.

Engineers say it allows drivers to become "probes in the system."

"There's probably a more eloquent way to say that," West said, but he added that it gets at the group participation aspect of the project.

"It's social networking on wheels," enthused Jim Misener of California Partners for Advanced Transit and Highways.

Gary Baldwin, a Berkeley researcher, discovered an unexpected benefit while testing it out on his commute from Palo Alto. When he's stuck in traffic, his phone tells him how far ahead the traffic logjam breaks free.

"To be able to look down and say, 'Oh, this isn't going to last too long,' you sort of chill out," he said.

The map is similar to the color-coded traffic flow maps on www.sacbee.com/trafficnews/ and other Web sites, with a major difference: Because it's on your phone, it rolls with you and adjusts so your car is always the center of the map.

A green line on the map indicates traffic is free-flow. Yellow means it's slowed but remains above 25 miles per hour. Red means it's at a crawl.

The information arriving in drivers' cell phones has a lag time of two minutes, sponsors say, but they point out that that is significantly faster than data from pavement sensors.

The project is financed by \$1.5 million in research money from Caltrans, another \$1 million in federal transportation funds and several million dollars in funds from private companies.

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