

Note: This press release was prepared for Texas Instruments for international distribution (March 1997).

Stolen Car Recovery Expected to Reach 65% in São Paulo, Brazil with the Help of Texas Instruments TIRIS™

Luiz Negrini, director of IDENTICAR, considers Texas Instruments TIRIS™ his essential partner in reducing the excessive number of car thefts that Brazilian motorists suffer annually. IDENTICAR is a new company established to reduce car thefts in Brazil and to collaborate with its sister company, the 12-year-old National Registry of Stolen Vehicles.

“Using TIRIS, cars get a digital identity, which eliminates the problems encountered when using the car’s color, its license tag number or its chassis number to identify a stolen car,” he explains. After 18 months of research and implementation, vehicle owners, especially fleet owners, are buying IDENTICAR’s service package.

The São Paulo Metroplex was targeted as the initial market because, with 20 million inhabitants, São Paulo is one of the biggest cities in the world. With over 4.5 million vehicles—roughly 25% of the national total—São Paulo is the mother lode for car thieves. Thefts are so high in the city that insurance companies were handing out car alarms to their customers as a way of preventing thefts and of stemming cash outflow for reimbursing customers for their losses. It’s estimated that, based on the average car value alone, over \$3.5 billion is lost due to car thefts in Brazil.

In São Paulo, the number of cars stolen monthly reaches 11,000. Annually, that means that 132,000 cars are stolen in the Metroplex. Using the national registry, authorities are able to recover 40% or 4400 cars a month. IDENTICAR’s goal is to increase the recovery rate to 65% or 7150 cars per month. That’s almost 87,000 vehicles that IDENTICAR hopes will be returned to their owners annually. An ambitious goal with TIRIS. Impossible without.

-more-

How It Works

The TIRIS technology for automatic vehicle identification (AVI) includes an antenna and a transponder. The transponder, which includes unique identifying information, is attached to the vehicle. The antenna is placed in-ground under the roadway. Using radio frequency identification (RFID) electronics, the antenna recognizes and identifies an approaching vehicle that contains a transponder. This information is relayed to a central computer where reports are generated that include the ID number and the time the vehicle passed the antenna. Each ID number is stored in the massive LINCES database built from vehicle inspections required by insuring companies. The insurance companies and individuals contract with IDENTICAR to provide services for recovering stolen cars.

IDENTICAR directors are proposing to give each car an identity that would be encrypted in the TIRIS transponder attached to the car. That identity would be stored in the LINCES, which would be accessed if the car were stolen. LINCES in turn would quickly inform IDENTICAR, which would immediately begin a localization and tracking process. "At first, we will offer a system to control access to big condominiums," says Negrini.

The system implemented in São Paulo includes 450 fixed, in-ground antennas installed strategically throughout the city and in bus and truck weighing stations on the 16 roads and highways that lead into the Metroplex. Additionally, 10 mobile rug-antennas provide the police with the ability to find stolen cars containing transponders without having to stop innocent motorists. Each rug is a mat embedded with an antenna. By placing the mat on the road anywhere in the city where there is no in-ground antenna, the police can also use their portable traffic control units to catch car thieves.

Already 82 private companies with a total of 11,000 buses that service 1200 routes are taking advantage of the TIRIS system in order to provide customers with buses on schedule and on time.

-more-

Executives Impressed

According to Marco Antonio de Lucca, a partner in IDENTICAR, the project was a total success *before* implementation. "Initially fleet owners, the first market to be explored, were skeptical of the new technology. But after we installed the transponders in some of their fleet cars on a test basis, it was not hard to convince them their operating and

capital costs could be greatly reduced by installing TIRIS in all their fleet vehicles." De Lucca remembers that "When these executives were given complete reports showing each vehicle's itinerary and the exact time it passed at each readpoint, they were speechless."

The insurance companies were also impressed because the system is basically maintenance-free. The transponders contain no battery that must be replaced, and the in-ground antennas are immune from the effects of the weather, dirt and noise.

With the support of the police, the IDENTICAR directors believe that the TIRIS-based system will result in a substantial increase in recovered vehicles and a decrease in losses to insurance companies and individual owners.

For more information call Aeroeletronica, Phone: +55-51-361-1222, FAX: +55-51-361-2773.

#