

ACN SYSTEM NEWS

Veridian Engineering, Calspan Operations

Fall 1999

ACN Test Extended (Again)!

Some time ago, Automatic Collision Notification (ACN) equipment was installed in your vehicle as part of a research program Veridian Engineering, Calspan Operations is conducting in Western New York for the U.S. Department of Transportation National Highway Traffic Safety Administration. Since then, much has happened in the test program:

- **The ACN test has been extended in Western New York (WNY) for another year to September 2000!**

As a participant in this test, your service with CellularOne will automatically continue—no further action is required on your part. Your ongoing involvement is greatly appreciated.

- **CellularOne continues to support the test.** CellularOne Buffalo continues to support the ACN program by installing equipment and providing wireless service.

- **Veridian has updated the ACN cell phone instruction pamphlet.**

You will find the new and improved instructions for the cellular telephone inside this newsletter. Please review them to know what to do in the event of a crash.

- **Veridian and CellularOne have taken steps to rectify previous problems.**

This program is a test of new technology and new cellular services. If problems occur, we will, as in the past, take steps to overcome them. If you experience any difficulties, contact CellularOne's Peter Pidgeon at 716-435-2422 (for billing problems) or Veridian's Roger McClellan at 716-632-7500, ext. 5304 (for ACN equipment problems).

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Veridian Hosts NHTSA Head Martinez and Dateline NBC

This spring, Dateline NBC came to the Veridian Engineering Transportation Group crash test facilities in Buffalo, New York to do a story on the lethal nature of side impact crashes. During the visit, Dateline NBC's Consumer Correspondent Lea Thompson interviewed Dr. Ricardo Martinez, Administrator of the National Highway Traffic Safety Administration (NHTSA), and Veridian's Transportation Sciences team staged a formal Government-certified side impact crash as part of the ongoing the New Car Assessment Program (NCAP) conducted by the Transportation Sciences Division of the Transportation Group.

In addition, at Dr. Martinez's specific request, Dateline NBC taped a separate interview with him that day, answering several questions regarding a piece on ACN programs filmed earlier by Dateline NBC's Laurel Bowman. Dr. Martinez was keenly interested in, and quite persistent about, having the opportunity to provide an on-camera quote in support of the ACN program for this yet-to-be-aired Dateline NBC story. He acknowledged the superiority of Veridian Engineering's ACN technology over current market offerings and

endorsed the Veridian device as a "next generation system."

Dateline NBC filmed the NCAP side impact test in real time as it was conducted by the Transportation Sciences team and then interviewed Dr. Martinez. Dateline NBC producer John Grecco expects the Veridian piece to air sometime in early autumn.



From left to right: Dateline NBC's Lea Thompson, NHTSA Head Dr. Ricardo Martinez, Veridian Engineering's Director of Transportation Sciences Sam Pugliese

ACN Test Extended (cont.)

- **Over 700 ACN systems have now been installed!**

However, we are still looking for volunteers. If you know anyone who would be interested in participating in the program, please use the inserted application form or call the ACN Message Center at (716) 631-4111. Applications will be accepted until December 31, 1999.

- **The Minnesota DOT has implemented a Mayday system based on the ACN.**

The Minnesota DOT and State Patrol, Mayo Clinic, and Veridian recently developed, installed, and are testing Mayday Plus, a system that combines automatic crash notification with emergency response (ER) and 9-1-1 services. Although Mayday Plus is similar to the ACN program, it concentrates on assessing the effectiveness of the ER network rather than the reaction time of ER personnel.

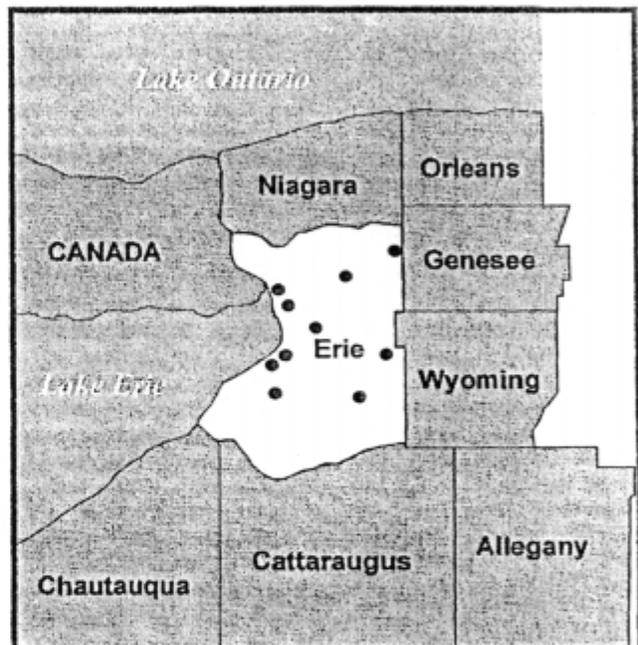
- **There have been eleven successfully reported collisions.**

In addition to the 11 successfully reported crashes (10 in Erie County and 1 in Rochester), there have been 37 minor crashes that did not activate the system because the crashes were not severe enough to cause activation.

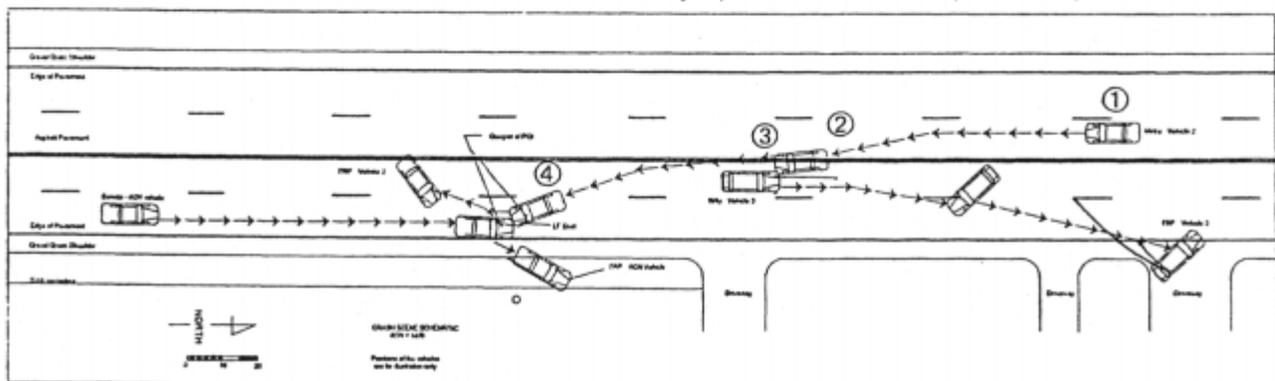
A sample case study (see pictures and diagram) was a multiple vehicle crash that involved an ACN-equipped 1992 Chevrolet Beretta, a 1998 Chevrolet Metro, and a 1940 Willys classic car. The crash occurred in the northbound lanes of a four-lane roadway in a suburban area of the Erie County test region. The driver of the southbound Metro lost control (due to a heart attack), drifted left across the center of the road, and struck the

left front corner of the Willys. The Metro continued into the northbound lanes and then struck the left frontal area of the Beretta at approximately 20 mph.

The ACN system in the Beretta detected the crash and notified the Erie County Sheriff's Department and the Medical Emergency Response System (MERS) at ECMC Voice communication between the ACN vehicle and the Sheriff's department was established (the dispatcher spoke to the driver and informed her help was on the way) and multiple police, fire, and ambulance units responded to the scene.



WNY Crash Locations. The system successfully reported 10 accidents in Erie County (locations shown by ●) and 1 in Rochester (not shown).



Crash Schematic

The southbound Metro lost control (1), drifted left of the road centerline (2), and struck the left front corner of the Willys (3). The Metro continued into the northbound lanes and then struck the left frontal area of the Beretta (4).

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ACN-Equipped Beretta

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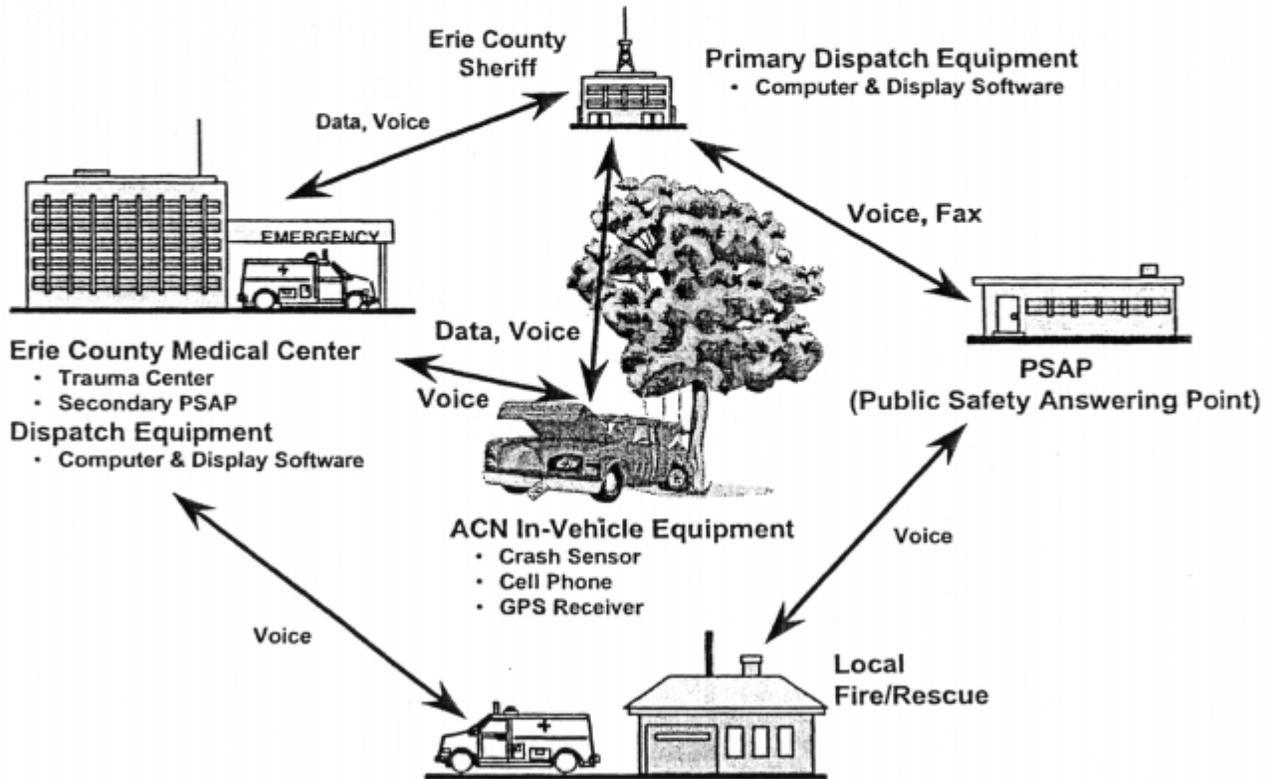
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Addition to the mailing list or additional copies of this newsletter may be requested by contacting Sandra Bellman at the address or phone number listed above address.

How the ACN System Works.

After a vehicle crashes, collision location, direction, and severity information is automatically transmitted by the ACN to the Erie County Sheriff Department dispatcher and relayed to appropriate emergency services personnel.



Please Note: If you are relocating outside of WNY, please tell us **before** you move. We are unable to shut off or transfer the cellular phone service without prior notification.

Also, if your window is replaced or otherwise altered in such a way that your ACN sticker is destroyed, please contact Veridian Engineering and we will replace your sticker.

If you know anyone who would be interested in participating in this program, or if you have any questions or comments, please contact ACN Message Center at (716) 631-4111; write to ACN Test, Veridian Engineering, P.O. Box 400, 4455 Genesee Street, Buffalo, New York, 14225; or visit the ACN website at <http://www.calspan.com/acn.html>.

Thank you for helping support this important program.

Eye on History

Among Veridian Engineering's many accomplishments, the company could be credited with helping to lay the foundation for today's Intelligent Transportation System (ITS) programs. The company's 50-plus-year history of transportation research includes a 1963 study of a transportation system called "Metrotran 2000" which was a conceptual metropolitan transportation system "of the future."

Much of the Metrotran 2000 study related to possible future systems for metropolitan areas where land, water, and air modes of transportation meet at interchange terminals called "modemixers."

Eventually, many of the concepts introduced in Metrotran 2000 study became the basis for the U.S. Government's Mobility 2000 project, which developed into Intelligent Vehicle Highway Systems (IVHS). IVHS has, in turn, spawned the current ITS program which has incorporated the concepts from the Metrotran 2000 study conducted over 35 years ago.



Veridian (then Cornell Aeronautical Lab) newsletter describing Metrotran 2000

Veridian Engineering

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