

19 Fire Departments United With EDACS™

Fire protection has been greatly enhanced for the 125,000 citizens of Lambton County, Ontario, with the recent implementation of a new, centralized fire dispatch system for the county's 19 volunteer fire departments.

Until early this year, the county's volunteer fire departments relied on a hodgepodge of dispatch methods, including sirens, fire phones, telephone answering services and phone interconnects, to page fire fighters. To eliminate this fragmented approach, the county sought proposals for a centralized dispatch paging system. Thames Communications Ltd., a Chatham, Ontario-based 5-Star Premier dealer, submitted the winning proposal, which included 800 MHz Enhanced Digital Access Communications System (EDACS) equipment that communicates with the volunteer fire departments' VHF radios by means of "cross-banding" with encoders.

The new fire dispatch system uses the county's existing Central Ambulance Communications Center (CACC) as its dispatch point. The CACC was established in 1990 and dispatches 11 ambulance operations in Lambton and Kent Counties. CACC Dispatch Manager, Gerry King, believes the decision to employ the center to support the volunteer fire departments makes great economic sense, given the county's tight budget. Gary Steele, Lambton County Fire Coordinator, concurs. "We have to work together in the face of limited budgets. By sharing resources,



At the Official Opening of the Lambton County Central Fire Dispatch System held on March 4, 1994, Paul Mayrand (left) posed with (left to right) Dennis Brown, Project Manager, Ministry of Health; Gerry King, Manager, Central Ambulance Communications Center; Barry McKinnon, Acting Manager, Fire Protection Services; and Chief Gary Steele, County of Lambton Fire Coordinator.

even the smallest communities in Lambton County now are able to enjoy the benefits of an advanced radio communications system. We are more than happy with the system, which is performing even better than our expectations," Steele says.

The CACC incorporates an MDX™ 800 MHz EDACS base radio, as well as a Zetron instant call encoder. Each of the county's 19 volunteer fire halls also employs an MDX radio, plus a VHF radio and an encoder. Volunteer fire department vehicles are equipped with a variety of VHF mobile radios and the fire fighters carry an assortment of portables. A Zetron repeater panel cross-bands VHF-to-EDACS radio traffic and vice versa, thus providing full inter

operability among the system's various types of radios.

For example, any radio calls received by an individual fire hall's base station from VHF mobile or portable radios in the field are cross-banded to 800 MHz by the repeater panel. The MDX radio in the fire hall then transmits the call, via Thames Communications' EDACS infrastructure, to the CACC. Likewise, the CACC can transmit an 800 MHz message on this same infrastructure to any fire hall. The message is received by the MDX radio in the fire hall and cross-banded to VHF.

"I believe that the Lambton County approach for fire dispatch may mark the beginning of a trend in which public service agencies

will not be required to purchase their own communications infrastructures. Instead, they will take advantage of existing systems by purchasing air time from SMR organizations," says Paul Mayrand, President of Thames Communications.

The new system is providing greatly improved radio coverage, according to Mayrand. "Firemen now are talking to the CACC on their portables from as far as 60 miles away. They often felt 'out-of-touch' before, so this is a very positive confidence factor," he adds. "Of course, reliability is of paramount importance and the system incorporates many redundancies, such as being able to set off a fire hall's pager encoder or generate the pager tones from the CACC. In public safety radio applications, you can't overstate the importance of back-up," Mayrand stresses.

Chief Steele carries a GE MRK™ 800 MHz portable radio. Equipped with a vehicular adaptor, he travels throughout the county and can call directly into the CACC with his portable. "Before our current system was installed, we had a one-way communications system, from dispatch to the fire halls. Now we employ two-way communications and all our fire departments are being dispatched by a single, professional organization, which has been very helpful. The system has improved my ability to communicate with the volunteer fire departments. They can reach me whenever they need to and I can talk to them on my MRK radio," he says.

In addition to offering greater redundancy, the system also provides "true verification" that fire dispatch pages were received by a fire hall. The system also incorporates a unit ID capability. Each time the CACC calls a fire hall, the radio operator at the fire hall sees "CACC" on his display screen. Likewise, whenever a fire department is communicating with the CACC, via a portable, mobile or the EDACS radio at the fire hall, that department's unit ID appears on the CACC display screen.

If any fire hall suffers an AC power failure, the system displays that department's unit ID on the CACC display. The system automatically alerts the CACC dispatcher at 15-minute intervals whenever a fire hall's radio system goes into a battery-backup mode.

The new system has significantly improved the fire departments' response time in emergencies, according to Mayrand. "The present two-way communications approach is much more efficient

than the old dispatch methods. It allows firemen to get to a fire faster and to be better prepared to fight it when they arrive."

Everyone agrees that the new centralized fire dispatch system is meeting the current communications needs of Lambton County's volunteer fire departments, but how about the future? "The system, as presently used, provides an easy path for each of the fire departments to migrate to EDACS, whenever the time is right for them. By putting its CACC on EDACS, the county has established an efficient platform for a future, cost-effective migration path to new technologies," Mayrand concludes.

[Note: As this story was being released, Thames Communications Ltd. was awarded a contract from the city of Sarnia, Ontario, to completely replace the city fire department's existing conventional radio system with an EDACS that will employ Thames Communications' Sarnia-based 800 MHz SMR infrastructure.]



The EDACS system helps firefighters' response time and helps them be better prepared when they arrive.