

**GOVERNMENT MOBILE COMMUNICATIONS PROJECT (GMCP)  
For the Provincial EMS System and Central Ambulance  
Communications Centres (CACCs)**

**Summary Status  
October, 2001**

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**Resolution of technical design and performance issues are nearing completion, along with contract modifications, which will move GMCP from its Design Phase to Implementation, by the end of October, 2001.**

**First site implementation, in Southwestern Ontario has begun for Ministry of Transportation with OPP transition forecast to begin during the first quarter, 2002, followed by Ministry of Health ambulance dispatch sites.**

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**General Background:**

- **Management Board approved the Government Mobile Communications Project (GMCP) in May 1998.**
- **The GMCP will replace the communications networks currently operated independently by: Ministry of Health and Long-Term Care; Ministry of Transportation; Ministry of Natural Resources; the Ontario Provincial Police and Correctional Services with a common set of digital-capable mobile communications services based on a shared common infrastructure.**
- **The current systems have a remaining useful life cycle of about five years. The GMCP will replace the infrastructure of these existing systems, and will implement a new digital-capable communications network to be used by all government mobile users to support existing and future applications.**
- **In view of the program-specific nature of dispatch centre operations, each user Ministry is responsible for ensuring appropriate connection to the new radio/data communications external to the dispatch centres.**
- **The Project lead ministry is Management Board of Cabinet(MBC). MBC, through its Corporate Chief Information Office has established a Government Mobile Communications Office (GMCO) to manage the project and its contractual obligations.**

- **Development and maintenance of the new infrastructure system is being lead by Bell Mobility Radio (BMR) which heads a consortium of private sector companies which supply various components of the system, which has been titled “FleetNet”. BMR has also assumed the maintenance of the current legacy systems.**
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## **Project Status:**

- **After a lengthy validation period to resolve technical issues and to modify some of the Project’s initial assumptions, Phase 2 (Design and Engineering) is now scheduled for completion by the end of October, 2001. This will move the Project into Phase 3 (Implementation).**
- **The Emergency Health Services Branch has established implementation and transition teams, consisting of dispatchers, paramedics, management and municipal EMS contacts, whose focus is planning for the move from the legacy radio network to the new radio network. Meetings with stakeholder groups are on-going.**
- **Technical review of the required CACC console configuration and interfaces to the new communications infrastructure has begun. Test consoles have been ordered for installation at Cambridge and Mississauga CACCs.**
- **First implementation of the system, commencing with MTO has begun. Other ministry participants will follow, in a staged fashion.**
- **Implementation of the system, at CACCs, is forecast to begin in Windsor (early, 2002) through to Durham Region, and will then move eastward (late-2002), north and northwest across the province, for completion by mid-2005. Any delays in entering the implementation phase will impact these forecasts.**
- **Replacement of mobile radios in ambulances and support vehicles was completed in the Region of Niagara in April. The balance of the southwest zone radio replacement, is being deferred pending resolution of technical issues. These new radios will continue to use the current system until changeover to the new system occurs.**
- **Planning and implementation of mobile and hospital radio replacements is conducted with the direct involvement of municipal EMS representatives.**
- **Operational design (Fleetmapping) for ambulance use of the system was completed at the end of July, 2001. Validation of the FleetMap is forecast by end of October, 2001.**

- Installation of tower site equipment in the southwest zone is underway and will be completed, along with designated hospital radios, over the fall and winter, 2001.

**Project Benefits for MOHLTC and Emergency Medical Systems:  
[Please also refer to attached “FleetNet System Design and Operational Features” document]**

- The MOHLTC ambulance communications legacy infrastructure is nearing the end of its life cycle; the GMCP will replace the legacy system with a new shared communications infrastructure
- Obsolete end user equipment (ie ambulance mobile repeaters) are replaced by new
- Development and maintenance costs of the shared infrastructure are less than those of dedicated systems for each participating ministry
- Improved operational flexibility is achieved through access to more radio “channels” and inter-operability between other users of the system (ie police-ambulance, etc).
- Provides continuance of “seamless” ambulance radio communications throughout the province through common access channels across ambulance dispatching jurisdictions.

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**Contacts:**

Rick Smiles; Manager Telecommunications Section, EHS. (416) 327-7882  
Roon Kasperavicius; Project Co-ordinator, EHS (705) 726-3541

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## **Government Mobile Communications Project (GMCP) FleetNet System Design and Operational Features Oct/01**

- **FleetNet is a provincial VHF radio network comprising of approximately 205 tower sites in five zones below the 51<sup>st</sup> parallel.**
  - **Radio coverage is guaranteed at 97%. Extensive radio coverage testing is being conducted, particularly in those geographic areas identified as having marginal coverage in both the existing network and through FleetNet coverage plots.**
  - **Although the system is digital capable, EMS communications will operate in analog mode to meet operational requirements in a cost-effective way.**
  - **Tower site affiliation with CACC talkgroups will permit the easier alignment of CACC boundaries with municipal boundaries.**
  - **Network access is guaranteed at 99% in 5 seconds or less.**
  - **Network tones identify system access, out-of-range or system-busy states.**
  - **The network is fully redundant at all FleetNet tower sites and at the master site including all signal linking systems.**
  - **A Major Incident Equipment Plan is being developed to deal with radio equipment requirements for planned and unplanned events/contingencies.**
  - **Paramedics will have the ability to communicate with their home CACC anywhere within their home zone (via Zone Common talkgroup).**
  - **Paramedics will be able to remotely turn their vehicular repeater on, using their assigned portable radio.**
  - **Emergency button functionality will be available from four sources – mobile radio front and rear controls, the portable radio and remote speaker/microphone. The Emergency alarm will send an audio and visual signal to the dispatcher that the paramedic crew is in danger and requires immediate police assistance.**
  - **A 'contention algorithm' ensures that a portable's transmission is repeated through one vehicular repeater by temporarily disabling other repeaters in that locale. This will eliminate the channel lock-up currently experienced when more than one vehicle radio transmits in repeat mode.**
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- **Use of the radio PTT (Push To Talk switch) will identify the vehicle number, talkgroup and time, on the dispatch console 'call activity log'.**
- **Each dispatcher position will be provided with a fixed mobile back-up radio in the event of radio console failure.**
- **Paramedics will continue to request radio patches to hospitals, via CACC and have local portable to portable communications.**
- **All mobile radio equipment will be changed out through an evergreening (replacement) process after about 10 years of use.**
- **The existing conventional radio system will eventually be decommissioned, with the exception of one Provincial Common site for each CACC.**
- **The current Paging system will remain until the Ministry accepts a suitable alternative network provided through Bell Mobility Radio.**
- **Contingency planning will allow a CACC to assume the profile of an adjacent CACC and the ability to communicate with that CACC's vehicles using established talkgroups.**
- **Radio communications will not be encrypted for EMS operations.**
- **Mobile status messaging will not be included for EMS operations, at this time.**
- **Future possibilities could include the migration to digital VHF communications, alphanumeric paging and status messaging. Phase IV of the project will address these issues in the context of maintenance and evergreening (replacement) of the network.**