

EMTRAC Municipal Vehicle Monitor

About EMTRAC

The EMTRAC system utilizes reliable GPS technology and secure radio communication to enable municipal vehicles to report location data to central locations in real time. Vehicles can then be quickly sent to new routes or locations while monitoring personnel track completed routes and assignments.

As EMTRAC-equipped vehicles transmit their locations, a central workstation (equipped with the EMTRAC software) displays their current locations on city maps. Monitoring personnel can locate the position of a specific vehicle with the click of a button. They can also choose to display only vehicles belonging to a specific department, making it easier to locate the equipment needed for a particular assignment.

How the EMTRAC System Works

1. EMTRAC detector units are placed in network-connected traffic-control cabinets in key locations throughout the city.
2. Municipal vehicles are equipped with EMTRAC Vehicle Computer Units that are able to receive GPS location data and transmit (and receive) radio communication.
3. As equipped vehicles travel through the city, the onboard computers transmit their locations to the detector units.
4. Central workstations receive the data and display the vehicle locations in the EMTRAC software, enabling personnel to route vehicles, monitor alerts, and record activity.

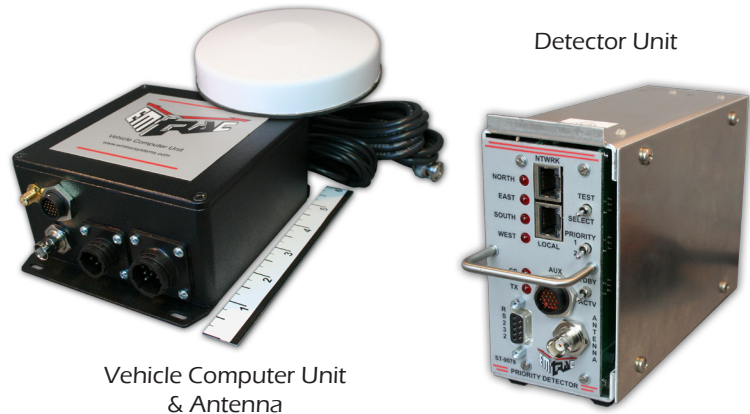


EMTRAC

EMTRAC Systems
www.emtracsystems.com

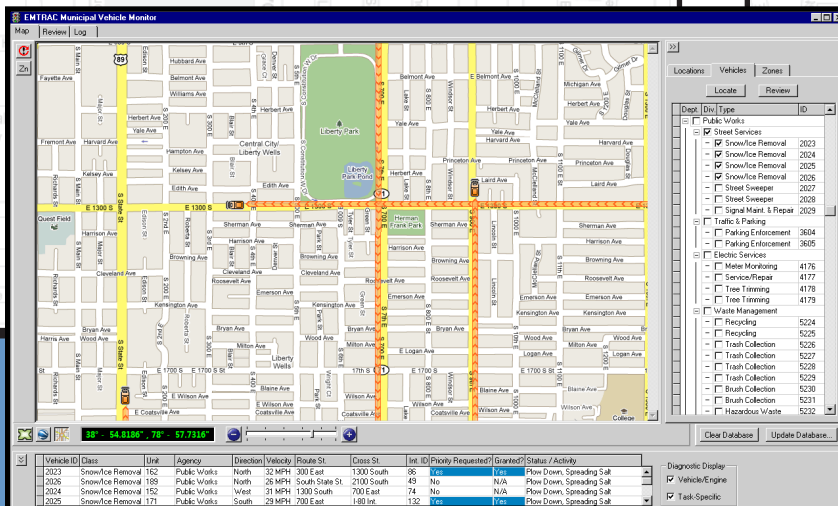
Benefits of EMTRAC

- **Flexibility:** Customize EMTRAC for your city by configuring the way vehicles and intersections react based on any number of factors. EMTRAC also easily integrates with existing AVL and EVP systems.
- **Reliability:** Wireless communication is not hampered by adverse weather conditions, and the range is typically no less than 3,000 feet, requiring relatively few detector units.
- **Timeliness:** Improve schedule adherence by enabling designated vehicles (such as snow plows) to request priority through signalized intersections.
- **Security:** Maintain secure communication through the ISM radio band with AES-encrypted Frequency-Hopping Spread Spectrum radio.
- **Fuel Efficiency:** Reduce cross-city runs by identifying the closest vehicles needed for new assignments. Reduce stops and starts, as well as unnecessary idling, by enabling certain vehicles to request signal priority.
- **Low Maintenance:** Interface with existing in-ground loop detectors without requiring



EMTRAC System Features

- Map display of city streets in multiple map types for any number of vehicles.
- Display route progress in real time. As vehicles complete portions of their assigned routes, the completed streets are indicated on the map.
- Record and save vehicle activity, then play it back later to review key events.
- Generate detailed status and activity reports, save the reports to open later, or export them as spreadsheet files.
- Log vehicle "events" by user-definable types. For example, the real-time activity log can be configured to display only requests for signal priority.
- Monitor critical engine diagnostics (such as fluid levels) to anticipate potential maintenance issues.
- Monitor task-specific diagnostics (such as salt/brine levels for snow plows or load amounts for waste collection trucks) to better plan for needed stops.



EMTRAC