Contact Global Traffic Technologies to learn more about service, maintenance and turnkey solutions in emergency vehicle preemption and transit signal priority that improve the quality of life for everyone in the community. Call 1-800-258-4610, or visit us at gtt.com.
Signaling a new paradigm in traffic management and safety.

More than 35 years ago, Opticom™ System Technology started a revolution in traffic management and safety. Today the world is a far busier and much more crowded place—and the need for better-managed roadways is greater than ever.

Our mission is to use our proven technologies and innovative mindset to improve system performance.

Global Traffic Technologies was formed from 3M’s pioneering intelligent transportation systems. Our engineers a new level of intersection management and control. And it’s all protected with a full range of installation, training and setup services to ensure optimal, long-term system performance.

Find out how easy it is to improve the safety and management of your roadways. Call your Global Traffic Technologies systems consultant or visit www.gtt.com.

About Global Traffic Technologies

Global Traffic Technologies was formed from 3M’s pioneering intelligent transportation systems. Our engineers a new level of intersection management and control. And it’s all protected with a full range of installation, training and setup services to ensure optimal, long-term system performance.

Avoiding crashes at controlled intersections.

Studies show that an effective signal preemption system improves response times by an average of 20%, while simultaneously reducing crashes at controlled intersections.

And it’s no secret that response times and risk mitigation are critical in the emergency service world. The Opticom GPS system provides unique, precise control that anticipates vehicle movement and helps responders get to their destinations as quickly and safely as possible.

The Opticom™ GPS System addresses this need with the next generation of emergency service world. The Opticom GPS system provides unique, precise control that anticipates vehicle movement and helps responders get to their destinations as quickly and safely as possible.

Studies show that an effective signal preemption system improves response times by an average of 20%, while simultaneously reducing crashes at controlled intersections.

And it’s no secret that response times and risk mitigation are critical in the emergency service world. The Opticom GPS system provides unique, precise control that anticipates vehicle movement and helps responders get to their destinations as quickly and safely as possible.

For emergency services:

Faster response for a world where every second counts.

Improves safety by eliminating priority conflict at the intersection.

Studies show that an effective signal preemption system improves response times by an average of 20%, while simultaneously reducing crashes at controlled intersections.

And it’s no secret that response times and risk mitigation are critical in the emergency service world. The Opticom GPS system provides unique, precise control that anticipates vehicle movement and helps responders get to their destinations as quickly and safely as possible.

For traffic engineers:

Easy integration into your current intersection management system.

Streamlines intersection installation and maintenance.

Single intersection radio/GPS unit receives information from all directions.

System accommodates hills, curves and varied distances without the need for advanced detectors.

Minimizes traffic disruption.

Turn signal-dependent mode recognizes the need for protected left turns, reducing potential traffic delays.

Adjustable activation, based on ETA and/or distance, enhances green time efficiency.

Integrates easily into current cabinets.

Opticom™ Phase Selector plugs directly into CA/NY 170 and most NEMA hardware.

Opticom phase selectors are compatible with most traffic controllers.

Software enables implementation and management.

Opticom™ ITS Explorer Software facilitates configuration, monitoring and diagnosis, and produces system reports.

Whether you’re looking to improve roadway, increase schedule adherence or activate queue jumping, the Opticom GPS system will serve you well. It provides a temporary advantage to individual buses, as needed, to help them catch up to schedules and maintain progression—crucial factors for maintaining a loyal rider base and attracting newcomers. Improving route timing by 10% or more may help you reduce your fleet needs.

For mass transit operations:

Lower costs, happier riders and reduced environmental impact.

Provides precise activation of priority requests.

Activation can be based on ETA and/or distance, reducing traffic disruption.

Enables automated operation.

Unit communicates with AVL for conditional priority, enabling automated operation.

Integrates easily with industry standard communication applications.

System provides GPS data output for other onboard devices.

Provides per-vehicle identification data.

Per-vehicle information means creation of “before and after” effectiveness reports.

Data enhances traffic signal controller reporting.
The intelligent intersection.

When an emergency vehicle responds to a 911 call or when a transit vehicle needs to pick up time, the Opticom™ GPS System gives those vehicles an advantage at intersections.

Using Department of Defense satellites, your Opticom GPS system vehicle equipment calculates vehicle speed, heading, longitude and latitude information. The Opticom GPS system intersection equipment is programmed with an approach map to define corridors for priority control activity. As the oncoming vehicle enters the intersection’s radio range (up to 2,500 feet), the vehicle sends speed, heading and position information that is updated every second. The signal from the vehicle also transmits vehicle, class and agency ID information, as well as turn signal status.

The Opticom™ GPS system interactive equipment sends the priority request to the Opticom™ GPS Phase Selector in the controller cabinet, which requests green-light priority through normal controller functions.

The system recognizes the activated turn signal and routes the priority call forward to the next appropriate intersection on the route.

Opticom™ GPS System intersection equipment Matched Components—Pole Mount: Opticom™ Model 1010 GPS Vehicle Unit, Opticom™ Model 1030 GPS Auxiliary Interface Panel, Opticom™ Model 1000 GPS Phase Selector

Opticom™ GPS System intersection equipment Matched Components—Cabinet Mount: Opticom™ Model 1012 GPS Radio Unit, Opticom™ Model 1050 GPS/Radio Antenna, Opticom™ Model 1030 GPS Auxiliary Interface Panel, Opticom™ Model 1000 GPS Phase Selector

Opticom™ GPS System Vehicle Kit: Opticom™ Model 1020 or 1021 GPS Vehicle Control Unit, Opticom™ Model 1012 GPS Radio Unit, Opticom™ Model 1050 GPS/Radio Antenna

Opticom is a trademark of Global Traffic Technologies, LLC.

Contact Global Traffic Technologies to learn more about service, maintenance and turnkey solutions in emergency vehicle preemption and transit signal priority that improve the quality of life for everyone in the community. Call 1-800-258-4610, or visit us at gtt.com. The method of using the components of the Opticom™ GPS System may be covered by U.S. Patent Numbers: 5,339,398 and Canada Patent Number 2,178,339. The use of Opticom GPS System components may be covered under one or more of the following U.S. Patent Numbers: 5,692,770; 5,590,111; 5,986,575; 6,243,026.
Traffic management and safety.

More than 35 years ago, Opticom® System Technology started a revolution in traffic management and safety. Today the world is a far busier and much more crowded place—and the need for better-managed roadways is greater than ever.

The Opticom® GPS System addresses this need with the next generation of signal preemption and priority for intersection management.

Featuring global positioning satellite (GPS) technology, as well as highly secure radio communication, the Opticom GPS System delivers safe, efficient results for emergency service and transit vehicles everywhere. At the same time, it gives traffic engineers a new level of intersection management and control. And it’s all protected by a revolutionary radio communication, the Opticom GPS System delivers safe, efficient results for emergency service and transit vehicles everywhere. At the same time, it gives traffic engineers a new level of intersection management and control. And it’s all protected by a revolutionary

The Opticom GPS system provides unique, precise control that anticipates vehicle movement and helps responders get to their destinations as quickly and safely as possible.

The Opticom GPS system provides unique, precise control that anticipates vehicle movement and helps responders get to their destinations as quickly and safely as possible.

About Global Traffic Technologies

Global Traffic Technologies was formed from 3M’s pioneering intelligent transportation systems. Our mission is to use our proven technologies and innovative mindset to improve traffic management and safety all over the world.

Global Traffic Technologies was formed from 3M’s pioneering intelligent transportation systems. Our mission is to use our proven technologies and innovative mindset to improve traffic management and safety all over the world.

For traffic engineers:

Easy integration into your current intersection management system.

Studies show that an effective signal preemption system improves response times by an average of 20%, while simultaneously reducing crashes at controlled intersections.

And it’s no secret that response times and risk mitigation are critical in the emergency service world. The Opticom GPS system provides unique, precise control that anticipates vehicle movement and helps responders get to their destinations as quickly and safely as possible.

For emergency services:

Faster response for a world where every second counts.

Improves safety by eliminating priority conflict at the intersection:

• Authorization is granted on a “first-come, first-served” basis.
• Vehicle description enable streamlined coding activity.

Facilitates safe, efficient movement through turns:

• Turn signal recognition and relay lead-preempt in the intended direction.

Integrates easily with industry standard communication applications:

• System provides GPS data output for other onboard devices.

Provides precise activation and data reporting:

• Activation is based on estimated time of arrival (ETA) and/or distance.
• Superior preemption log accuracy improves liability identification.

For mass transit operations:

Lower costs, happier riders and reduced environmental impact.

Whether you’re looking to improve headway, increase schedule adherence or activate queue jumping, the Opticom GPS system will serve you well. It provides a temporary advantage to individual buses, as needed, to help them catch up to schedules and maintain progression—crucial factors for maintaining a loyal rider base and attracting newcomers. Improving route timing by 10% or more can greatly improve service.

Provides precise activation of priority requests:

• Authorization is based on ETA and/or distance, reducing traffic disruption.

Enables automated operation:

• Unit communicates with AVL for conditional priority, enabling automated operation.

Integrates easily with industry standard communication applications:

• System provides GPS data output for other onboard devices.

Provides per-vehicle identification data:

• Detailed information necessary creation of “before and after” effectiveness reports.

Improves safety by eliminating priority conflict at the intersection:

• Authorization is granted on a “first-come, first-served” basis.
• Vehicle description enable streamlined coding activity.

Facilitates safe, efficient movement through turns:

• Turn signal recognition and relay lead-preempt in the intended direction.

Integrates easily with industry standard communication applications:

• System provides GPS data output for other onboard devices.

Provides precise activation and data reporting:

• Activation is based on estimated time of arrival (ETA) and/or distance.
• Superior preemption log accuracy improves liability identification.

Scroll down for additional information.

---

For mass transit operations:

Lower costs, happier riders and reduced environmental impact.

Whether you’re looking to improve headway, increase schedule adherence or activate queue jumping, the Opticom GPS system will serve you well. It provides a temporary advantage to individual buses, as needed, to help them catch up to schedules and maintain progression—crucial factors for maintaining a loyal rider base and attracting newcomers. Improving route timing by 10% or more can greatly improve service.

Provides precise activation of priority requests:

• Authorization is based on ETA and/or distance, reducing traffic disruption.

Enables automated operation:

• Unit communicates with AVL for conditional priority, enabling automated operation.

Integrates easily with industry standard communication applications:

• System provides GPS data output for other onboard devices.

Provides per-vehicle identification data:

• Detailed information necessary creation of “before and after” effectiveness reports.

Improves safety by eliminating priority conflict at the intersection:

• Authorization is granted on a “first-come, first-served” basis.
• Vehicle description enable streamlined coding activity.

Facilitates safe, efficient movement through turns:

• Turn signal recognition and relay lead-preempt in the intended direction.

Integrates easily with industry standard communication applications:

• System provides GPS data output for other onboard devices.

Provides precise activation and data reporting:

• Activation is based on estimated time of arrival (ETA) and/or distance.
• Superior preemption log accuracy improves liability identification.

Scroll down for additional information.

---


2 Smith, Hemily, Ivanovic for Intelligent Transportation Society of America.

For traffic engineers:

Easy integration into your current intersection management system.

Studies show that an effective signal preemption system improves response times by an average of 20%, while simultaneously reducing crashes at controlled intersections.

And it’s no secret that response times and risk mitigation are critical in the emergency service world. The Opticom GPS system provides unique, precise control that anticipates vehicle movement and helps responders get to their destinations as quickly and safely as possible.

For emergency services:

Faster response for a world where every second counts.

Improves safety by eliminating priority conflict at the intersection:

• Authorization is granted on a “first-come, first-served” basis.
• Vehicle description enable streamlined coding activity.

Facilitates safe, efficient movement through turns:

• Turn signal recognition and relay lead-preempt in the intended direction.

Integrates easily with industry standard communication applications:

• System provides GPS data output for other onboard devices.

Provides precise activation and data reporting:

• Activation is based on estimated time of arrival (ETA) and/or distance.
• Superior preemption log accuracy improves liability identification.

For mass transit operations:

Lower costs, happier riders and reduced environmental impact.

Whether you’re looking to improve headway, increase schedule adherence or activate queue jumping, the Opticom GPS system will serve you well. It provides a temporary advantage to individual buses, as needed, to help them catch up to schedules and maintain progression—crucial factors for maintaining a loyal rider base and attracting newcomers. Improving route timing by 10% or more can greatly improve service.

Provides precise activation of priority requests:

• Authorization is based on ETA and/or distance, reducing traffic disruption.

Enables automated operation:

• Unit communicates with AVL for conditional priority, enabling automated operation.

Integrates easily with industry standard communication applications:

• System provides GPS data output for other onboard devices.

Provides per-vehicle identification data:

• Detailed information necessary creation of “before and after” effectiveness reports.

Improves safety by eliminating priority conflict at the intersection:

• Authorization is granted on a “first-come, first-served” basis.
• Vehicle description enable streamlined coding activity.

Facilitates safe, efficient movement through turns:

• Turn signal recognition and relay lead-preempt in the intended direction.

Integrates easily with industry standard communication applications:

• System provides GPS data output for other onboard devices.

Provides precise activation and data reporting:

• Activation is based on estimated time of arrival (ETA) and/or distance.
• Superior preemption log accuracy improves liability identification.

Scroll down for additional information.

---

For traffic engineers:

Easy integration into your current intersection management system.

Studies show that an effective signal preemption system improves response times by an average of 20%, while simultaneously reducing crashes at controlled intersections.

And it’s no secret that response times and risk mitigation are critical in the emergency service world. The Opticom GPS system provides unique, precise control that anticipates vehicle movement and helps responders get to their destinations as quickly and safely as possible.

For emergency services:

Faster response for a world where every second counts.

Improves safety by eliminating priority conflict at the intersection:

• Authorization is granted on a “first-come, first-served” basis.
• Vehicle description enable streamlined coding activity.

Facilitates safe, efficient movement through turns:

• Turn signal recognition and relay lead-preempt in the intended direction.

Integrates easily with industry standard communication applications:

• System provides GPS data output for other onboard devices.

Provides precise activation and data reporting:

• Activation is based on estimated time of arrival (ETA) and/or distance.
• Superior preemption log accuracy improves liability identification.

For mass transit operations:

Lower costs, happier riders and reduced environmental impact.

Whether you’re looking to improve headway, increase schedule adherence or activate queue jumping, the Opticom GPS system will serve you well. It provides a temporary advantage to individual buses, as needed, to help them catch up to schedules and maintain progression—crucial factors for maintaining a loyal rider base and attracting newcomers. Improving route timing by 10% or more can greatly improve service.

Provides precise activation of priority requests:

• Authorization is based on ETA and/or distance, reducing traffic disruption.

Enables automated operation:

• Unit communicates with AVL for conditional priority, enabling automated operation.

Integrates easily with industry standard communication applications:

• System provides GPS data output for other onboard devices.

Provides per-vehicle identification data:

• Detailed information necessary creation of “before and after” effectiveness reports.

Improves safety by eliminating priority conflict at the intersection:

• Authorization is granted on a “first-come, first-served” basis.
• Vehicle description enable streamlined coding activity.

Facilitates safe, efficient movement through turns:

• Turn signal recognition and relay lead-preempt in the intended direction.

Integrates easily with industry standard communication applications:

• System provides GPS data output for other onboard devices.

Provides precise activation and data reporting:

• Activation is based on estimated time of arrival (ETA) and/or distance.
• Superior preemption log accuracy improves liability identification.

Scroll down for additional information.
More than 35 years ago, Opticom™ System Technology started a revolution in traffic management and safety. Today the world is a far busier and much more crowded place—and the need for better-managed roadways is greater than ever.

The Opticom® GPS System addresses this need with the next generation of signal preemption and priority for intersection management.

Featuring global positioning satellite (GPS) technology, as well as highly secure radio communication, the Opticom GPS system delivers safe, efficient results for emergency service and transit vehicles everywhere. At the same time, it gives traffic engineers a new level of intersection management and control. And it’s all protected with a full range of installation, training and setup services to ensure optimal, long-term system performance.

Find out how easy it is to improve the safety and management of your roadways. Call your Global Traffic Technologies systems consultant or visit www.gtt.com.

Global Traffic Technologies was formed from 3M’s pioneering intelligent transportation systems and the potential for a revolution in traffic management and safety.

Traffic management and safety all over the world.

Opticom GPS systems improve system performance.

Studies show that an effective signal preemption system improves response times by an average of 20%, while simultaneously reducing crashes at controlled intersections.1 And it’s no secret that response times and risk mitigation are critical in the emergency service world. The Opticom GPS system provides unique, precise control that anticipates vehicle movement and helps responders get to their destinations as quickly and safely as possible.

The Opticom GPS System addresses this need with the next generation of signal preemption and priority—eliminating redundant preemption and priority—crucial factors for maintaining a loyal rider base and attracting newcomers. Improving route timing by 10% or more may help you reduce your fleet’s need for advanced detectors.

Whether you’re looking to improve roadway, increase schedule adherence or activate queue jumping, the Opticom GPS system will serve you well. It provides a temporary advantage to individual buses, as needed, to help them catch up to schedules and maintain progression—crucial factors for maintaining a loyal rider base and attracting newcomers. Improving route timing by 10% or more may help you reduce your fleet’s need for advanced detectors.

The Opticom™ ITS Explorer Software facilitates configuration, monitoring and diagnosis, and produces system reports. The system can be easily integrated into current cabinets and is designed for efficient installation and compatibility with most traffic controllers. And it supports both emergency and transit services, with separate priority levels for signal preemption and priority. The system accommodates hills, curves and varied distances without the need for advanced detectors. It’s designed for efficient installation and compatibility with most traffic controllers. And it supports both emergency and transit services, with separate priority levels for signal preemption and priority.
The intelligent intersection.

When an emergency vehicle responds to a 911 call or when a transit vehicle needs to pick up time, the Opticom™ GPS System gives those vehicles an advantage at intersections.

The Opticom™ GPS system intersection equipment sends the priority request to the Opticom™ GPS Phase Selector in the controller cabinet, which requests green-light priority through normal controller functions.

The system recognizes the activated turn signal and relays the priority call forward to the next appropriate intersection on the route.

Using Department of Defense satellites, your Opticom GPS system vehicle equipment calculates vehicle speed, heading, longitude and latitude information.

The Opticom GPS system intersection equipment is programmed with an approach map to define corridors for priority control activity.

As the oncoming vehicle enters the intersection's radio range (up to 2,500 feet), the vehicle sends speed, heading and position information that is updated every second. The signal from the vehicle also transmits vehicle, class and agency ID information, as well as turn signal status.

The system recognizes the activated turn signal and relays the priority call forward to the next appropriate intersection on the route.