Econolite's Vision is Zero Traffic Fatalities

Building Intelligent Intersections to Eliminate Traffic-Related Fatalities, Including Red-Light Running

Since its founding in 1933, Econolite continues to work with municipalities toward a Vision Zero future. This future will be powered by the intelligence of the Connected and Automated Vehicle (CAV) intersection control technologies that Econolite is pioneering to eliminate traffic-related fatalities.

Addressing Safety Challenges with Smart Technology

Integrating Smart Controllers and Video Detection for Red-Light Running and Collision Prevention

As an immediate solution to preventing collisions, by combining Autoscope Vision video detection and EOS traffic controller software, cities and agencies can leverage an output from the Vision speed threshold detector, which enables EOS to dynamically extend the red clearance time. In this way, the sensor can detect a vehicle that is likely to run a red light, and then ensure the vehicle can safely proceed through the intersection—proactively keeping bicyclists and people in other vehicles safe.

Detection Solutions for Advanced Dilemma-Zone Safety

Econolite's intelligent video, radar, and in-ground sensor solutions provide advanced dilemma-zone detection to prevent collisions as a result of red-light running at high-speed approaches. Advanced dilemma-zone detection enhances safety at signalized intersections by leveraging the advanced, vehicle speed, and vehicle classification detection capabilities of the sensor in modifying the traffic controller signal timing to reduce vehicles that may have difficulty stopping during a yellow phase. This can also reduce rear-end collisions associated with unsafe stopping and angle collisions due to vehicles running the red light.

Departure Detection for Signal Optimization

Econolite's video and radar sensor solutions also provide departure detection so that agencies can collect the data necessary to further optimize signal timing and enhance intersection safety. Econolite's highly accurate multi-tasking capabilities can provide the high-resolution red-light running data that can be retrieved from the traffic signal controller, enabling traffic engineers to make actionable real-world decisions to signal timing that can save lives.

Why the Intelligent Intersection Matters

The recently released AAA study highlighting the dramatic increase in fatalities due to red-light running is another stark reminder that intelligent intersections are needed now, more than ever. The study brought to light some glaring statistics as the number of fatalities, 939, due to red-light running collisions has reached a 10-year high, in particular, since 2012 with a 28% increase. Moreover, about half of the fatalities of red-light running collisions were not just the drivers running the red light, but other people who happened to be at the intersection, including bicyclists and passengers in other vehicles.

The promising part of this study is that it brings much-needed attention to the fundamental role that signalized intersections have in safety. While traffic-related fatality rates have increased markedly, including red-light running, the percentage of traffic-related fatalities at signalized intersections has remained at just 8% of total traffic fatalities, according to NHTSA. During the same period, there was a nearly 19% increase of fatalities at non-signalized intersections, as well as the 31% increase in red-light running fatalities AAA reported. Signalized intersections continue to prove their value in safety. **What if we can increase the intelligence at each intersection to further reduce fatalities and save lives through improved mobility?**

The Intelligent Intersection Requires Smarter Solutions

There are solutions available today to increase the intelligence of the intersection and improve mobility to help reduce all fatalities as a result of collisions. In addition to enforcement, the intelligent intersection features a combination of smart sensors, traffic controllers, systems, and software. **As the leader in one-stop-shop traffic management solutions,** Econolite offers the ideal combination of products and services to update intersection infrastructure and optimize signal timing to improve mobility and safety.

System Software

Econolite's comprehensive line of systems software, including the industry-leading Centracs ATMS, is designed to immediately address current and future traffic management challenges. It is an integrated platform for ITS, ensuring the highest levels of safety and optimized mobility.

Smart Controllers

Econolite's lineup of controllers and controller software provides an unmatched combination of ATC open architecture to support connected vehicle programs. Through Econolite's Connected Vehicle Co-Processor (CVCP) module, Econolite's controllers support SPaT/MAP data messaging, providing the fundamental V2I capability for connected vehicle applications. When matched with EOS, Econolite's breakthrough ATC controller software, Econolite greatly expands traffic control and safety capabilities, while also focusing on the intuitive, web-based simplicity of programming and ease-of-use that supports connected and automated vehicle applications designed to reduce fatalities.

Smart Sensors

Econolite leads the industry in its comprehensive suite of multi-tasking detection solutions, while also delivering the leading-edge sensor solution for virtually any roadway application. Econolite's detection solutions include Autoscope Vision HD video, AccuScan radar-based systems, and AccuSense in-ground wireless sensors—helping ensure your intelligent traffic network can support the latest in intelligent collision prevention programs.

ECONOLITE