

# AccuScan 1000



▷ ▷ The ITS capabilities of a radar-based advanced detection far outweigh the benefits of inductive loops.

## About AccuScan1000

The results of an ongoing advance detection study have demonstrated that advance detection is a proficient solution for reducing incidents at dilemma zones and intersections – red-light violations and crash frequencies – while also reducing vehicle delays and stops. Moreover, the benefits and cost effectiveness increase, as vehicle detection is located further from the intersection.

Supporting the advance detection research findings, the FHWA Traffic Detector Handbook and Arterial Management Program provide a roadmap for agencies and MPOs to effectively address both safety and capacity of arterials through an advance detection strategy. Furthermore, the FHWA Traffic Signal Manual details the detection design for high-speed approaches taking into careful consideration the location for advance detection relative to posted speed. Ideally, detection should be located approximately 5 to 5.5 seconds of travel time with 3 to 5 detectors to provide safe termination of the high speed approach phase. Unfortunately, in many cases, the costs, construction, maintenance, and traffic disruption associated with installing arrays of inductive loops can be prohibitive.

## At A Glance

- ▷ The sensor is a robust low-cost 24GHz radar for traffic management solutions
- ▷ It works in adverse conditions, almost unaffected by weather
- ▷ The antenna is designed for long ranges with narrow horizontal angular coverage
- ▷ The field of view typically covers up to four lanes
- ▷ Easy setup using a user friendly Windows based configurator application
- ▷ Simultaneous tracking of multiple vehicles across a minimum of four lanes with traffic data updated every 50ms



## Enhancing Safety

The advance detection capabilities of the AccuScan 1000 is an ideal solution to enhance safety at all intersections, especially for arterials with high speed approaches – 35 MPH, or faster. By providing lane-by-lane advance detection out to 1,000 feet from the radar unit, the AccuScan 1000 minimizes the number of vehicles exposed to an intersection dilemma zone by enabling the traffic signal controller to adjust the start time of yellow phases earlier or later, based on detected vehicle location and speed.

A research study by the Texas Department of Transportation (TxDOT) demonstrated that advance detection significantly reduced collision occurrence at intersections. The study on advance detection found:

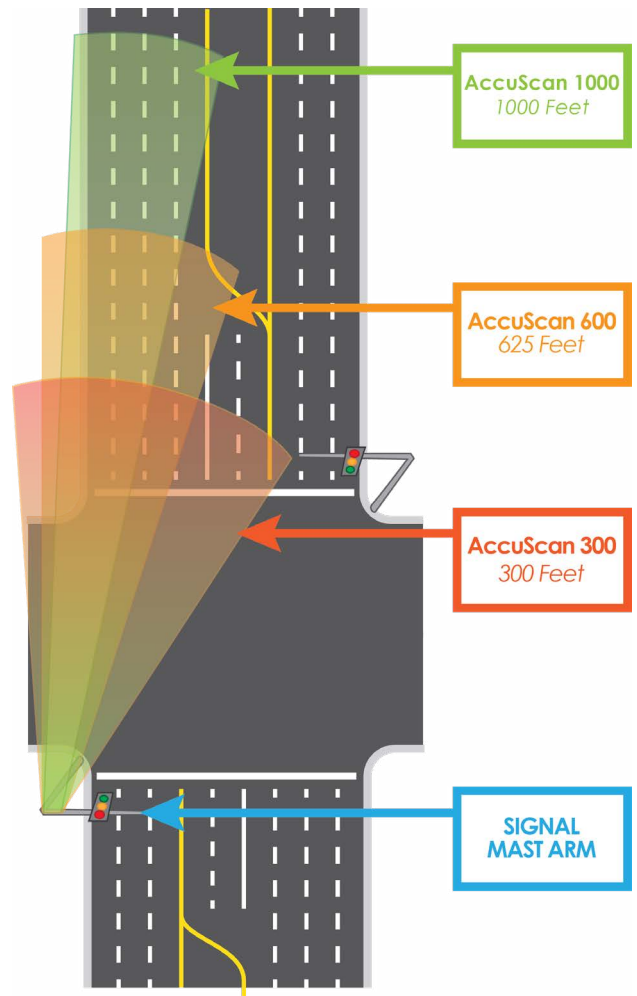
- 58% reduction in red light violations
- 39% reduction in severe crash frequency
- 80% reduction in heavy-vehicle red light violations

## Increasing Capacity

The AccuScan 1000 advance detection radar solution also provides new levels of ITS and traffic management capabilities. By providing precise position and speed measurements of vehicles per lane at distances out to 1,000 feet, AccuScan 1000 offers the signal timing capability for finding gaps by lane rather than by phase. Programming signal timing gaps by lane, particularly for arterials with high speed approaches, has shown increases in the number of vehicles safely through a corridor by up to 13 percent, and more, significantly increasing capacity.

## Support

Product support and training available through the EGI Learning Center



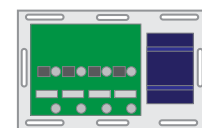
**RADAR (x4)**



**CONTROLLER (x1)**



**INTERFACE PANEL (x1)**



**CABINET INTERFACE**

