



SENSOR TECHNOLOGIES & SYSTEMS, INC.



RADS Roadway Animal Detection System

PURPOSE/ OBJECTIVES

Every year vehicular collisions with wildlife in the U. S. cause a reported 152 deaths and tens of thousands of injuries. This results in an estimated cost to our society of over \$1.2 billion per year. As the number of animal vehicle collisions continues to rise as wildlife populations soar, and as civilization continues to encroach on wildlife habitat, the associated costs in loss of life, injuries, property damage, accident investigation, and carcass removal will also grow. RADS is a remote sensing system that provides the necessary reliability and accuracy to assist drivers in avoiding accidents with animals on the roadway.

Features of the RADS system:

- Continuously monitors both sides of the roadway for approaching animals
- Covers from less than one quarter to several miles
- Less expensive to install and maintain than fences and lighting
- Operates in all weather and light conditions
- Does not interfere with animal migration routes
- Extremely low false reporting
- AC or DC (battery) powered
- Records time/date of crossing
- Stored data remotely accessible via cell modem web page, etc.
- Wireless communication between sensors

DESCRIPTION

Using RADS, animals are detected entering the roadway which automatically triggers the warning device. Drivers are thereby alerted to the presence of animals on the roadway and can react in advance to avoid a potential accident. The system can detect any size animal from a small deer to a large moose in all weather and light conditions.

The RADS sensor uses Radio Frequencies (RF) that operate at a very low power level that is safe to humans, animals, and the environment. RADS operates by line-of-sight in a single or multiple unit configuration (See diagram, on back). By connecting multiple units together in a networking arrangement, longer distances or a perimeter can be covered. Continuous coverage over longer distances is obtained by back-to-back networked systems. Curved roadways are handled by strategic placement of additional sensors to "bend the beam" around the curve.

The data for each crossing (date, time, and segment location) is recorded and stored in the master unit for downloading at a later time. The direction of the crossing may be determined from the stored data. Downloading the data can either be accomplished on-site, using a laptop computer, or remotely, using the onboard cellular telephone provided. Other data transmission and reporting options are also available.

RADS consists of the sensors (including the communications network and cellular phone capability), power system, and warning device. This warning device is a flashing beacon placed at the beginning and half-way points of each mile of the protected roadway. Other warning methods are optional, including wireless in-vehicle warning systems.

Call your STS Representative today to find out more about this product and others.

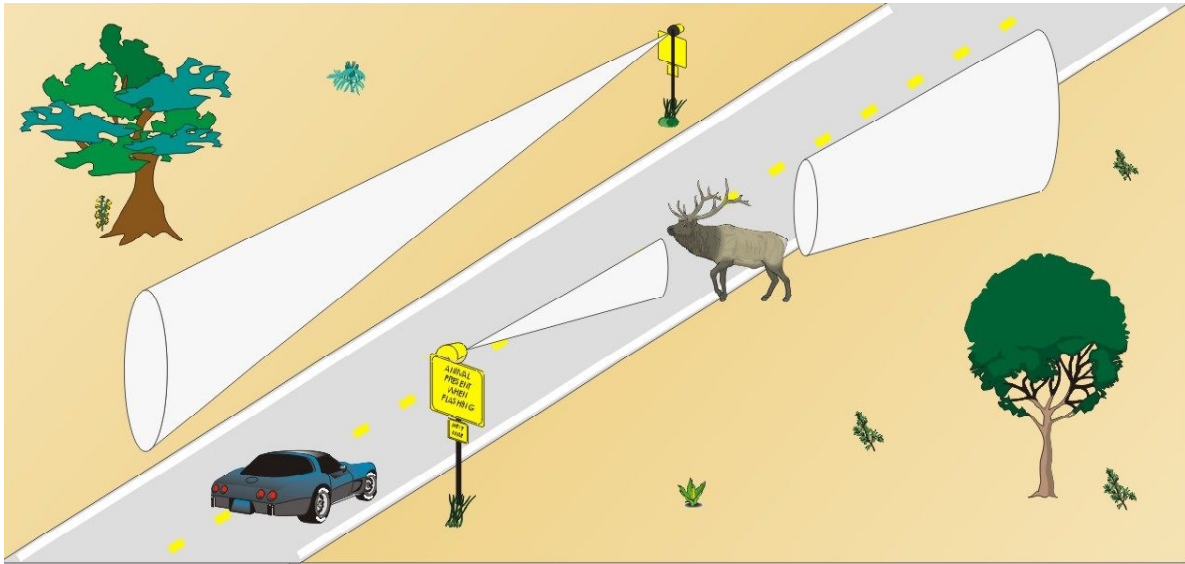
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RADS

Roadway Animal Detection System



RADS in Operation

RADS SPECIFICATIONS

SYSTEM

Animal Sizes	Deer, Elk, Moose, Bear
Maximum Range per Sensor	402 meters
Network Range – Typical	1.6 km increments, extendable
Minimum Sensor Range	0 meters
Approximate Weight	3 kg
Outputs – Hardware	Relay Contact Closure
Outputs – Data	Time/Date of Crossing, Segment, Duration
Communications	Dedicated Short Range Wireless in Network Cell Phone for Remote Access of Data & Maintenance
Power	12 VDC
Power System	Solar with Batteries or AC Power as Available

ENVIRONMENTAL

Temperature	-40°C to +85°C
Humidity	0 to 95% RH, non-condensing (60°C max)
Altitude (above sea level)	-150 to 4270 m (-500 to +14,000 ft.) operating -150 to 12,190 m (-500 to +40,000 ft.) storage
Wind	45 meters/second maximum
Weather	All weather conditions

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