



A deer appears, seemingly out of nowhere, and collides with a car on a secluded highway. The calamitous combination happens more often than people think; one insurance group claims that in 2000, approximately 500,000 deer-automobile collisions resulted in more than 100 human deaths and thousands of injuries. Here is a product that could help prevent these collisions.

Wildlife Protection System™

How It Helps: The Wildlife Protection System provides accurate, real-time warnings of animals approaching the roadways to prevent potentially deadly collisions with motorists. In areas where wildlife-automobile collisions are frequent, highway departments traditionally install bright yellow warning signs. But, after viewing these signs, most people fail to slow down or keep a closer watch for animals near the road. The Wildlife Protection System displays warnings that attract the attention of motorists. When an animal is detected, the system also can automatically trigger the display to show a lower speed limit, further reducing the chances of collision. It can even identify what species of animal is near the road. Because the system can operate in the dark and through fog, rain, and smoke, it also is very reliable.



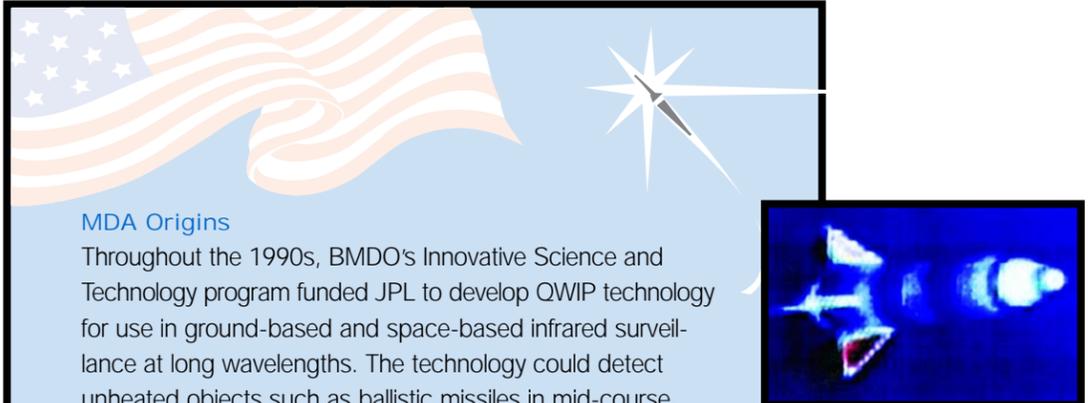
How It Works: The Wildlife Protection System uses a long-wavelength infrared imaging camera to detect wildlife in a critical area and transmit a signal to any message display, such as a flashing light or digitally illuminated sign. The camera includes a focal plane array, containing quantum well infrared photodetectors (QWIPs), that is highly sensitive to heat energy in the 8- to 12-micrometer wavelength range. This capability allows the camera to see radiation at wavelengths not normally visible to the human eye. Room temperature objects observed at these wavelengths can be seen to radiate the same way red-hot objects glow in visible light. The QWIP array can scan several miles of road and warn motorists long before a collision might occur.



How Much It Will Cost: The price of the product depends on the geography of the area, sophistication of the system, and available infrastructure. Man-made subterranean animal crossings can cost upwards of \$1 million. This type of crossing, which typically covers an area of 300 meters or more, easily could be replaced with a \$125,000 Wildlife Protection System. A larger, more advanced system covering one kilometer or more costs about \$200,000.

When It Will Be Ready: The product will be available in mid-2003. It is being tested in the Kootenay National Park of Canada. An advanced version of the system, which is being developed, will warn motorists about other objects on the highway, including ice, debris, and even road kill.

Who Is Working On It: InTransTech, Inc., is commercializing this technology. Founded in 1991, the company applies cutting-edge technology to transportation safety. It employs two people and occupies 1,000 square feet of office space and research facilities. InTransTech has the exclusive rights to transportation applications of the QWIP technology through its parent company, the Rainbow Group. QWIP technology was originally developed by NASA's Jet Propulsion Laboratory (JPL) and licensed by QWIPTech, another subsidiary of the Rainbow Group. For more information, contact Dale Keep of InTransTech at (509) 525-3197 or dalekeep@innw.net. The company Web site is www.intranstech.com.



MDA Origins
Throughout the 1990s, BMDO's Innovative Science and Technology program funded JPL to develop QWIP technology for use in ground-based and space-based infrared surveillance at long wavelengths. The technology could detect unheated objects such as ballistic missiles in mid-course, when the hot rocket engine is not burning.