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Subject: Green Alert: Deer Alerts(whistles)

**Title: GREEN--Deer Alerts May Reduce Accidents, Save Money**

**Executive Summary:** The following Idaho National Engineering and Environmental Laboratory (INEEL) Lockheed Martin Idaho Technologies Green Alert Lessons Learned is being issued to inform you that deer alerts (whistles) may be an effective tool in reducing vehicle accidents with deer and antelope.

Identifier: INEEL Lessons Learned #97344  
Dated: October 21, 1997

**Lessons Learned Statement:** Properly installed and maintained animal warning devices (commonly called deer alerts or deer whistles) may reduce traffic accidents involving antelope, deer, and horses. INEEL's Fleet Operations experienced a reduction in accidents from 17 per year to 0 during the initial 5- year period after devices were installed. However, alerts mounted on a vehicle's front bumper may be easily damaged or dislodged; small orifices may become clogged by insects, ice or snow, and road debris. Drivers should not rely on alerts to prevent accidents; drivers should maintain heightened awareness of the areas, seasons, and times of day when game may be seen on or near roadways.

**Discussion:** The INEEL is located on Idaho's high desert, which supports large populations of deer and antelope. In 1990, the INEEL's fleet of buses and government vehicles were averaging 17 deer and antelope accidents per year. Accidents involving deer and antelope usually result in the animal's death, an average repair cost of \$1500-2000 per vehicle, and the potential for programmatic down time during the vehicle's repair. (INEEL personnel did not experience any serious injuries in these accidents.)

In 1991, INEEL's Fleet Operations began installing deer alerts on all buses and government vehicles at the site. The twin-unit devices (which cost less than \$5/device) were installed approximately 2 to 2-1/2 feet apart on the front bumpers of the vehicles. Some difficulties were encountered with the twin alerts. The device's small orifices were frequently blocked by insects, ice and snow, and road debris. The units were damaged or dislodged, especially when the vehicles were washed.

In September 1997, in the first such incident in 5 years, an antelope was killed in an accident with a government vehicle. The car had been outfitted with the devices. However, dirt on the mounting pads suggested the devices were missing prior to the accident.

**Analysis:** Fleet Operations now uses a single, two-hole alert that can be mounted anywhere on the front end, including in the grill or under the bumper. The single devices (which can also be obtained for less than \$5/unit) also have significantly larger orifices, reducing potential for clogging.

Alerts are designed to warn deer, antelope, and horses as well as some small animals. The typical response is to freeze, not run. If an animal is startled while standing in the roadway, it may not move out of the way of traffic. The devices do not operate at under 35 mph; no testing has been conducted at speeds above 75 mph. Scientific studies of deer alerts have produced conflicting results.

Although the results cannot be validated, anecdotal evidence (the drop in accidents per year from 17 to 0) suggests the deer alerts may be effective in reducing accidents. At a cost of less than \$5 per device, both types of alerts are extremely economical.

**Recommended Actions:**

1. Install deer alerts (whistles) on all vehicles.
2. Conduct regular inspections, especially after washing the vehicle, to verify the whistles are intact and operational.
3. Drivers should maintain heightened awareness of the areas, seasons, and times of day when game may be seen on or near roadways.

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