

## HSS Helps Pioneer “Robot” Patrol Technology: Deployment of the DOE Mobile Detection Assessment Response System (MDARS)



The use of patrol robots to cost effectively improve security while reducing health and safety risks at DOE and NNSA nuclear facilities is an HSS advanced technology deployment "first".

Over the past 2 years, the HSS Office of Technology has played a key role in working with the Army, the National Nuclear Security Administration (NNSA), the Nevada National Security Site (NNSS) and General Dynamics Robotics Systems to purchase, prototype, test and deploy the first of three MDARS patrol robots at NNSS. In addition to the initial purchase, HSS successfully negotiated a mutually acceptable Amendment to the Interagency Agreement with the Department of the Army resulting in the acquisition of two additional Army MDARS patrol units, a command console, spare parts, repair kits and warranty support. Use of the MDARS represents an estimated cost avoidance of over \$6M in infrastructure costs and \$1M in annual protective force and equipment maintenance expenditures. The use of MDARS at the NNSS is also expected to reduce the injuries to protective force members and maintenance personnel working at remote areas of the NNSS by limiting their exposure to hostile and nighttime work environments.

Successful operation of the first MDARS began on September 30, 2010, at the NNSS and has generated wide publicity from local and world-wide news media. The online MDARS video has had over 100,000 hits and MDARS segments have aired on local Nevada CBS and FOX news affiliates. MDARS articles have also appeared in The Defense News and Government Security News publications.

Contrary to an article posted on the website geekologie.com, the DOE/NNSA MDARS are not armed with live missiles or any other type of weapon. The unmanned units are equipped with radar, camera, and audio capabilities and are used to perform intrusion detection, assessment, and response missions in remote NNSS locations.

To learn more about the MDARS operations at the NNSS and access live video, click on the following links:

[NNSA MDARS Press Release](#)

[Las Vegas Review-Journal](#)

[Las Vegas Review-Journal \(video\)](#)

[Fox5 News](#)