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# Homeland Security Eyes HDD



By John English

The Department of Homeland Security is taking a serious look at horizontal directional drilling (HDD) and its implications along our borders. Recently, I was asked to participate in a Combating Terrorism Technical Support Office (CTTSO) Seminar. The International Subterranean Operations Meeting was held at the El Paso Intelligence Center, located at Fort Bliss in El Paso, Texas. The conference took place on March 16-17, and included a number of topics, highlighted by the technology and capabilities of HDD.

The CTTSO was established in 1999 to consolidate its research and development programs previously administered by the Office of the Assistant Secretary of Defense (Command, Control, Communications and Intelligence). Its mission is to identify requirements to combat terrorism and provide solutions to war-fighters, first responders and other frontline users as rapidly as possible.

The CTTSO is charged with providing a forum for interagency and international users to discuss mission requirements to combat terrorism, prioritize those requirements, fund and manage solutions and deliver capabilities. CTTSO accomplishes these objectives through rapid prototyping of novel solutions developed and field-tested before the traditional acquisition systems are fully engaged. CTTSO cooperates with governmental organizations in Australia, Canada, Israel, Singapore and the United Kingdom, all of which have the ability, like CTTSO, to reach to the whole of government including military, security services and first responder organizations.

These agreements allow projects that go beyond data exchanges to cooperative development, ensuring a broadly scoped program with worldwide impact. The results of this cooperation are not only high-quality products and increased communication with key global partners, but also the creation of a global antiterrorist environment.

The International Subterranean Operations Meeting drew international attendance involving a wide variety of military and law enforcement agencies.

Publishing an inclusive list of attendees was discouraged. Apparently law enforcement and counter terrorism is sometimes a matter of connecting dots and the good guys had rather not show their hands. Most of the agencies prefer that they not be identified. Questions were detailed and the security benefits of placing pipelines below ground via HDD were recognized. However, the overall concern level (for the illicit use of HDD) increased as the attendees became more familiar with the capabilities. The presentation provided information on various size HDD rigs and their capabilities, as well as methods and procedures. The obvious questions covered costs, diameter and distance limits but then trended toward after-market equipment sales and the likelihood of operational concealment.

The allotted HDD time was extended and potential threat scenarios discussed. Dr. David Salmon, a law enforcement advisor with OSS, personally experienced the complexities of battling an underground enemy in Vietnam and fully understands the dangers of encountering subterranean encroachments. "It doesn't take too much of an imagination to understand the nefarious ways HDD could be used along a border. These possibilities add an entirely new dimension further complicating the situation for the specialized military and law enforcement agencies trained to deal with tunnels and smuggling operations," he said.

There was a guarded consensus that illicit use of HDD may already be in play and that law enforcement, especially in border areas, need to be observant. Common sense suggests open communication between law enforcement, local HDD contractors and suppliers. Unknown projects, workers and equipment movement are potential concerns. The responsibility isn't only with law enforcement and everyone should be observant. HDD vendors and contractors, especially near borders or potential targets, should notify law enforcement about suspicious inquiries or purchases.

The counter terrorism seminar included a number of topics and demonstrations of equipment useful in locating

and investigating subterranean operations. From Sandia National Labs demonstration of robotics, to the Israeli's tunnel response and prevention capabilities, to the ability to spot underground structures from the sky and even outer space, the grasp for technology to prevent and intercept underground activity may improve and advance the technology used to install our underground infrastructure.

The continued research and development of these technologies can only benefit our industry. Of specific interest was the presentation by a St. Louis company, Entech. Its proprietary technology allows it to locate and identify below ground structures from the air. Entech's specialty is finding existing leaks but the related capabilities could benefit HDD design and planning by verifying the existence of pipelines and utilities along the proposed bore path before drilling. This technology can also identify faults and fractures in levees. By documenting the conditions before and after the use of HDD, Entech's technology will help in the planning and regulating of construction around levees by the Corps of Engineers. The implementation of this technology could prevent incidents and provide added protection to HDD contractors. Due diligence by pipeline owners should include the use of this existing technology as soon as possible.

Pipeline and utility construction has seen a lot of changes in the last 25 years. HDD use been a benefit to the construction industry and probably the most effective environmental tool ever developed. HDD can be used to improve pipeline security. Sadly, terrorist and drug lords have access to the same technology. It is important that the HDD industry not only be aware the bad guys exist, but assist law enforcement in their efforts to stay one step ahead. Advanced research and development combined with the efforts of the CTTSO will continue to benefit forward thinking businesses as well as the entire HDD Industry.

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