JPEO-CBD

PM-FPS Product Manager - Force Protection Systems

NII

Non-Intrusive Inspection

ORGANIZATION

The US Army Product Manager, Force Protection Systems (PM-FPS), is chartered to develop, field, and support force protection and physical security equipment throughout its life cycle for the Army, Joint Services, and other Government agencies. PM-FPS is a product management organization under the Joint Project Manager-Guardian (JPMG), Joint Program Executive Office for Chemical and Biological Defense (JPEO-CBD).

MISSION

Provide affordable, modular, scaleable, and supportable physical security capabilities integratable into a system/family of systems to tactical forces and installations worldwide.

PROGRAM MANAGEMENT

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The NII Program is designed to provide commanders with systems that can quickly and non-intrusively detect explosives, drugs, and other contraband in cargo containers and vehicles entering DOD facilities. These NII systems will enhance the security and safety of personnel and are used in conjunction with other normally employed security measures. The NII Program is based on proven commercial off-the-shelf technologies.

Relocatable Vehicle and Cargo Inspection Systems (RVACIS)

RapiScan GaRDS

Since 2003, Headquarters, Department of the Army (HQDA), has provided funding for 163 non-intrusive inspection platforms fielded worldwide, to include support of Operations Iraqi Freedom and Enduring Freedom, as well as locations in the US, South Korea and Europe. Most recently, the Military Mobile Vehicle and Cargo Inspection System (MMVACIS) was fielded to provide tactical force protection to units deployed in Afghanistan and the first of the Rapiscan re-locatable Gamma Radiographic Detection System (RaRDS) were procured to be fielded to MNC-I and Qatar.

IED Threat Detection

NII systems include mobile, re-locatable, and fixed site configurations. Mobile systems are mounted on a vehicle chassis. Re-locatable systems generally are ground-mounted gantry systems which move on rails and can be relocated from one site to another.

Fixed site systems are much larger and more powerful in their ability to penetrate vehicles and cargo containers and remain in place once installed.

NII systems utilize two main technologies for cargo examination: X-Ray and Gamma Ray imaging systems.

X-RAY IMAGING SYSTEMS

X-Ray systems can employ two different types of detection: Transmission and Back Scatter.

Transmission systems produce powerful X-Rays that penetrate the item being inspected.

Back Scatter systems use reflected X-Rays that can penetrate up to a quarter inch of steel and provide a "picture quality" view while highlighting organic materials, such as drugs or plastic explosives.


MobileSearch


ZBV

X-Ray systems presently fielded by DOD include the MobileSearch, a truck-mounted X-Ray system utilizing both Transmission and Back Scatter technologies, and the "ZBV," which is a Back Scatter only system mounted in a Daimler-Chrysler van.

The OmniView is a gantry X-Ray system utilizing both a high power Transmission X-Ray and three Back Scatter technology views to find contraband.

GAMMA RAY IMAGING SYSTEMS

The Gamma Ray systems utilize a nuclear source to generate gamma rays that penetrate the target vehicle or container being inspected.

Operators viewing the images on a video monitor can identify drugs, explosives, and weapons as well as voids, false walls or ceilings, and other secret compartments typically associated with means of transportation.


MVACIS

Operators searching for stolen goods can use the images to determine whether the cargo is consistent with the declared manifest.

All of the Gamma Ray systems utilize a Cobalt-60 source. Most of the systems are Vehicle and Cargo Inspection Systems (VACIS). All of the VACIS systems share common software and hardware technologies and differ primarily in their physical configurations. The VACIS-II is the re-locatable gantry version of the VACIS. The Mobile VACIS (MVACIS) is a truck-mounted version of the VACIS.


MMVACIS

The newest version of the Military MVACIS (MMVACIS) utilizes an armored, high-mobility, multi-wheel vehicle and out vehicle to operate in a wide range of environments. The MMVACIS gives the unit the capability to go "forward of the wire" and establish unannounced check points for interdiction missions.

The newest Gamma based system is the Rapiscan (GaRDS). The GaRDS gantry is a re-locatable System similar To the VACIS II but utilizing Rapiscan's proprietary software to conduct NII missions in support of the OIF and OEF missions.