Office of Second Line of Defense: Partnership Opportunities

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Second Line of Defense (SLD)

MISSION: Strengthen the capabilities of partner countries to *deter, detect, and interdict* illicit trafficking of special nuclear and other radioactive materials at international border crossings including airports, seaports, and other points of entry/exit.

STRATEGY: Develop cooperative efforts to implement strategic mix of mobile, discreet, and fixed deployments that is commensurate with regional illicit trafficking threat

- Targeted fixed radiation portal monitor deployments to address critical gaps in the existing detection architecture
- Expanded mobile equipment deployments to foreign law enforcement as part of adaptable, flexible detection approach for interior and border applications.
- Refined scope for scanning container traffic through major seaports (Megaports), capitalizing on technical innovations, and maintaining a global deterrent effect
- Increased emphasis on long–term performance effectiveness

GOAL: Deliver an effective and sustainable global capability to *deter, detect, and interdict* illicit trafficking in special nuclear and other radioactive materials.
SLD: Focus on Implementation and Sustainability

**Second Line of Defense**

**Implementation**

- Equip points of entry: airports, border crossings, major seaports (Megaports), and small feeder seaports
- Bolster detection capabilities of foreign border officials, customs officials, port authorities, or affiliated agencies
- Provide mobile detection technology (vans) to law enforcement agencies for green/blue borders and interior operations
- Install national communications network joining all detection equipment to central partner country location to support alarm response, maintenance and oversight

**Sustainability**

- Currently supports over 400 SLD sites in transition to full Partner Country Partner responsibility
- Ensure long-term operation of SLD systems by Partner Country Partners
- Build Partner Country Partners’ indigenous capabilities to fully support SLD systems
- Provide transition support and services including help desk, data analysis and other diagnostic tools

**Accomplishments**

**SLD Implementation Program:**

- Installed over 2200 radiation portal monitors and provided handheld equipment at international points of entry (airports, border crossings, feeder seaports) in over 20 countries and provided mobile detection systems to 9 countries.

- Installed over 350 radiation portal monitors, straddle carriers, spectroscopic portal monitors, and provided handheld equipment at major seaports (Megaports) in 30 countries.

**SLD Sustainability Program:**

- Transitioned 224 international points of entry and 10 Megaports
- Transitioning 228 international points of entry and 32 Megaports.
SLD Provided Equipment

**Fixed Locations**
- Vehicle monitors
- Pedestrian monitors
- Rail monitors
- Spectroscopic monitors

**Handheld Equipment**
- Personal Radiation Pagers (PRDs)
- Radioisotopic Identifiers (RIIDs)
- Radiation Survey meters
- Highly Sensitive Germanium Identifiers

**Mobile and Man-Portable Equipment**
- Straddle carriers & MRDIS
- Mobile detection systems
- Man Portable Equipment

TSA Survey Meter
Personal Radiation Detectors (PRDs)
Thermo IdentiFINDER
ORTEC Detective
Communications Systems: CAS and National Network

- All data from installed equipment reports to an appropriately located, on-site Central Alarm Station
  - Radiation Portal Monitors
  - OCR and/or LPR
  - Secondary Inspection Equipment
- Can be configured as single or multiple workstations
- Graphical display assists operator in proficient alarm adjudication

- All data from sites with installed equipment reports to a regional or central location to facilitate
  - Radiation detection alarm adjudication
  - Equipment maintenance and repair
- Radiation detection alarm information can be simultaneously transmitted to multiple agencies in partner country
SLD Training, Workshops and Field Exercises

- Training takes place both during appropriate phases of after equipment installation and sustained operations
  - Radiation Detection/Response Training
  - CONOPs Training
  - Maintenance/Repair Training

- Training methodologies and materials provided to partner countries as part of comprehensive transition efforts.

- SLD collaborates with European Commission Joint Research Centre and IAEA on development and delivery of training, including:
  - Front Line Officer training at JRC
  - In-Country – On-site on-the-job training

- Bilateral and Regional Workshops: Sustainability
  - Development of regulations and management practices
  - Best practices; e.g. airport operations

- Table Top and Field Training Exercises
  - Collaboration with partner countries
International Partnerships: Existing and Future Opportunities

• Important component of on-going work has been international partnerships with EU, IAEA, Global Partnership countries
  ▪ Efficiencies gained and duplication avoided through Border Monitoring Working Group
• SLD Assistance Partnership Options
  ▪ Direct funding of SLD by Global Partnership member countries
    ▪ GP partners who have provides such funding in the past: Finland, Norway, Canada, South Korea, New Zealand
  ▪ Facilitate cost sharing arrangements among government organizations and commercial entities
  ▪ Provision of SLD design, construction and training methodologies and materials

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Investment: Scope of Nuclear Security Impact

- Assistance levels range from training, and hand-held equipment to fully implemented vehicle crossing at border check point.
  - A contribution of approximately $150,000 could supply a host country with one mobile detection van
  - A donation of $300,000 could provide equipment and part of the construction for one border crossing or radiation detection portal monitors for multiple crossings
  - A contribution of approximately $1,000,000 would be sufficient to fully equip one vehicle crossing
Proposed SLD Outyear Strategy (FY14-FY18)

Countries Funding Detection Architecture:
China, India, Pakistan, Saudi Arabia, Turkey
In Summary

• Partnership opportunities:
  – to ensure coordinated and robust radiation detection architecture to combat illicit trafficking
  – to leverage SLD competencies and methodologies

• Multiple approaches that can be tailored to the specific requirements of donor countries

• Please contact SLD (information in your folder) for further information