Nuclear Forensics Cooperation

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Outline

• Why nuclear forensics
• International legal infrastructure
• Multilateral Cooperation
• National Capabilities
Why nuclear forensics

• Threat
  – Materials Outside Regulatory Control
  – Terrorist Interest

• Prague Agenda
  – Summit integrates range of nuclear security efforts at different levels

• Nuclear Security Tool
  – Investigate & prosecute illicit uses of RN material
International legal infrastructure

- UNSCR 1540
- CPPNM
- CPPNM (Amendment)
- ICSANT
International legal infrastructure

- UNSCR 1540
- CPPNM
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UN Security Council Resolution 1540

- Adopted under Chapter VII of the UN Charter in 2004 and binding on all States, it requires them to, inter alia:

  - All States must adopt and enforce effective laws which prohibit any non-State actor to manufacture, acquire, possess, develop, transport, transfer or use nuclear, chemical and biological weapons and there means of delivery, in particular for terrorist purposes, as well as attempts to engage in any of the foregoing activities, participate in them as an accomplice, assist or finance them
UNSCR 1540 Implementation

1540 Committee

– Annual Program of Work
– Working Groups
  • Monitoring & National Implementation
  • Assistance
  • Cooperation with International Organizations
  • Transparency & Media Outreach
– National Implementation Reports
International legal infrastructure

• UNSCR 1540
• CPPNM
• CPPNM (Amendment)
• ICSANT
CPPNM

Convention on Physical Protection of Nuclear Material

Provides for:

– physical protection of nuclear material used for peaceful purposes during international nuclear transport
– criminalization of certain offences
– international cooperation
International legal infrastructure

- UNSCR 1540
- CPPNM
- CPPNM (Amendment)
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CPPNM Amendment

Amendment to the Convention on Physical Protection of Nuclear Material

- Extends the scope of the CPPNM to cover physical protection of nuclear material during domestic use, storage and transport and of nuclear facilities

- Establishes new offences smuggling and sabotage of nuclear facilities

- Provides for expanded cooperation between and among States with regard to implementing rapid measures to locate and recover stolen or smuggled nuclear material
International legal infrastructure

• UNSCR 1540
• CPPNM
• CPPNM (Amendment)
• ICSANT
ICSANT

International Convention for the Suppression of Acts of Nuclear Terrorism

• Requires States Parties to, inter alia, criminalize the unlawful possession and use of nuclear or other radioactive material and damage to nuclear facilities

• Covers threats and attempts to commit such crimes or to participate in them as an accomplice

• Provides for international cooperation
# Multilateral Nuclear Forensics Cooperation

<table>
<thead>
<tr>
<th>Forum</th>
<th>Members</th>
<th>Focus</th>
<th>Key Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nuclear Security Summit</td>
<td>53 Heads-of-State (Invited)</td>
<td>Effective high-level momentum to existing NF efforts</td>
<td>Nuclear Security Summit Work Plan, Communiqué, NF Gift Basket</td>
</tr>
<tr>
<td>IAEA</td>
<td>164 Member States</td>
<td>NF guidance and training for member states</td>
<td>Nuclear Security Series Documents, IAEA NF Training</td>
</tr>
<tr>
<td>ITWG</td>
<td>International Scientific Practitioners (volunteer)</td>
<td>Technical forum and information exchange, analytical exercises</td>
<td>Comparative Lab Analysis Exercises; National NF Libraries TOR</td>
</tr>
</tbody>
</table>
International Technical Working Group

- Longest standing multilateral forum
- Co-chaired by EC & US
- Annual meetings & exercises
- Practitioners and law enforcement
- Five Task Groups -- Exercises, Evidence, Guidelines, NNFLs and Outreach

Conduct Outreach & Promote Best Practices
International Technical Working Group

 Conduct Outreach & Promote Best Practices

• Four comparative material exercises
• Participants analyze unknown nuclear materials
• Share and compare techniques
• Identify best practices
• Socialize application of forensics

CMX-4 Data Review Meeting in Karlsruhe, Germany
International Technical Working Group

- Web-based exercise
- Populate an NNFL & analyze signatures
- Spent fuel and sealed sources
- 30+ countries participated

Conduct Outreach & Promote Best Practices
GICNT Nuclear Forensics Working Group

Focus Areas

- Information sharing and exchange
  - “Exchanging Nuclear Forensics Information” best practices guide
- Promote nuclear forensic core capabilities (within a national framework)
- Promote nuclear forensics as a tool in investigations and prosecutions

Achievements

- “Blue Beagle” (Jan. 2014, United Kingdom)
- “Tiger Reef” (Feb. 2014, Malaysia) (NFWG/RMWG)
- “Mystic Deer” (Oct. 2014, Hungary)
- “Glowing Tulip” (Mar. 2015, Netherlands)
- “Radiant City” (May 2015, ITU)
GICNT NFWG Participation

Between 2010-2014

Map courtesy of presentationmagazine.com
CONTENTS OF THE NUCLEAR FORENSICS GIFT BASKET

1. Online Knowledge Platform
2. Nuclear Forensics Lexicon
3. Compendium of Practices
4. Training curriculum
Nuclear Security Summit

• Nuclear Forensics Gift Basket for 2016
  – carry forward 2014 gift basket
  – still being developed
  – hope to expand the number of countries

• Nuclear Forensics House Gifts
  – brief descriptions of steps governments are taking on nuclear forensics
Nuclear Security Summit
2014 Forensics in Nuclear Security Gift Basket
IAEA

• Training
• Guidance Documents
• Consultancies
• Conferences
IAEA

• Training
  – Intro (both bilateral & regional)
  – Methodologies
  – Pilot of new course

• Guidance Documents
• Consultancies
• Conferences
IAEA

• Training

• **Guidance Documents**
  – *Nuclear Forensics in Support of Investigations*
  – *National Nuclear Forensics Libraries*
  – *Nuclear Forensics Measurements*

• Consultancies

• Conferences
IAEA

• Training
• Guidance Documents
• Consultancies
  – Review of IAEA Training Courses
• Conferences
IAEA

- Training
- Guidance Documents
- Consultancies

- Conferences
  - 2014 Nuclear Forensics Conference
  - 2016 Nuclear Security Conference
National Capabilities

• National Response plan
• Categorization
• Characterization
• National library
National Capabilities

• Response plan
  - An agreed upon national framework (e.g. a national response plan) that articulates government priorities when responding to illicit uses of RN materials and includes nuclear forensics assets.

• Categorization
• Characterization
• National library
National Capabilities

• Response plan

• Categorization
  o The capability to categorize illicitly used RN materials, particularly those that typically reside within a country.

• Characterization

• National library
National Capabilities

• Response plan
• Categorization
• Characterization
  o The capability to collect as evidence and sufficiently characterize illicitly used RN materials consistent with national laws to prosecute offenders.
• National library
National Capabilities

- Response plan
- Categorization
- Characterization
- National library
  - The capability to determine if RN materials found outside of regulatory control within their territory are consistent with national holdings.
Summary

• More countries than ever working in nuclear forensics

• Many are working to determine level of national capabilities and where to collaborate with regional or international partners

• International legal infrastructure & multilateral mechanisms for cooperation are helping provide direction
Thank You