OSCE Workshop to Identify the Proper Role of the OSCE
in Facilitation of UN Security Council Resolution 1540
27 – 28 January 2011
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International Atomic Energy Agency

Nuclear Security Assistance

January 2011

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Nuclear Terrorism Threats

1. Nuclear explosive device
   - Theft of nuclear weapon
   - Theft of material to make a nuclear explosive device

2. Radiological dispersal device
   - Theft of radioactive material/source

3. Sabotage
   - of a facility or transport to cause dispersal of radioactivity

IAEA

- An independent intergovernmental organisation
- Governed by its statute and the decisions of its Member States
- Programs and activities are approved and funded through regular and extra-budgetary funds

- *IAEA assistance may be useful for States in the implementation of their international obligations including those required by UNSCR 1540*

Combating Nuclear Terrorism
What can the IAEA do?

- **Security responsibility of State**
- **Transnational and international character of terrorism**
- **Need for international cooperation and coordination**
- **IAEA role advisory: support and assistance to Member States in efforts to combat nuclear terrorism**

IAEA General Conference Approvals to Combat Nuclear Terrorism

- Sept. 2002: Four year Plan of Activities
- Sept. 2005: Nuclear Security Plan (2006–2009)
- Sept 2007: Secretariat can, on request, assist States to meet their 1540 obligations, within IAEA Statute
- Sept 2009: a new Nuclear Security Plan (2010-2013)

Nuclear Security Activity Areas

Prevention, Detection & Response

- A = Nuclear Security Fact Finding Missions
- B = Research
- C = Guidelines Development
- D = Training
- E = Cooperation & Coordination
- F = Infrastructure Support
- G = Information Exchange & Analysis
- H = Upgrades of Equipment

A: Nuclear Security Missions

INSServ – International Nuclear Security Service

- **Advisory Mission – Overview of nuclear security activities in a State**

IPPAS – International Physical Protection Advisory Service

- **Peer Review of State Physical Protection**

ISSAS – IAEA SSAC Advisory Service

- **Advisory Mission – Overview of effectiveness of State's existing State System of Accounting and Control of nuclear material**

Missions result in Integrated Nuclear Security Support Plan (INSSP);

Integrated Nuclear Security Support Plan

- An INSSP provides a platform for nuclear security work to be implemented over time.
- Nuclear Security needs - irrespective of resources.
- Enables States to implement nuclear security improvements without external assistance.
- Enables all parties (Agency, State, Donors) to plan and coordinate activities from both a technical and financial viewpoint.
- Optimises use of resources, avoids duplications and ensures sustainability.
- Remains Confidential

IAEA Programmes and Activities

1. **Legislative Assistance:**
   - Safeguards Agreements under NPT
   - Additional Protocols
   - Convention on Physical Protection of Nuclear Material (CPPNM) + amendment
2. **Assessment Missions:**
   - International Experts Report on Infrastructure and make Recommendations
   - Assist with Implementing Recommendations

Nuclear Security Guidance

FUNDAMENTALS & RECOMMENDATIONS

Legislative Drafters

Policy Making Personnel

Senior Enforcement

SECURITY GUIDANCE

Regulators;
Operators;
Law Enforcement;
Police;
Customs;
Intelligence;
Border Guards;
Emergency Responders;
Military/Defence;
Carriers.

Nuclear Security Series
Recommendations, Guides and Handbooks

C: Nuclear Security Guidance
Recommendations, Guides & Handbooks

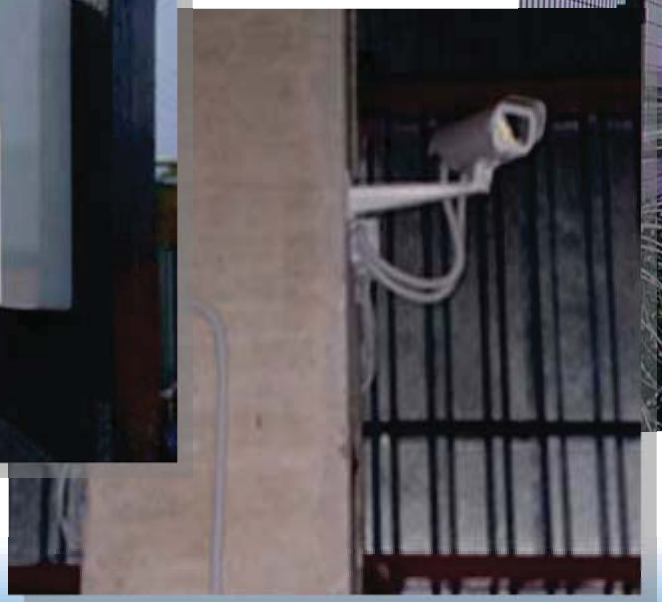
IAEA Programmes and Activities

3. Support for State to:
   - Develop and Implement High Standards of Physical Protection of Nuclear Materials and Nuclear Facilities
   - Upgrade Border Controls in Order to Better Detect Illicit Trafficking of Nuclear Material
4. Training on:
   - Implementation of Legal Instruments to which States Subscribe
   - National Controls on Nuclear Material

IAEA - Upgrade of Equipment

1. Prevention Upgrades:

- Register for nuclear material and radioactive sources
- Physical protection



2. Detection Equipment Upgrade

Personal radiation detector (PRD)

Hand-held radionuclide identification device (RID)

Neutron search device (NSD)

Detection Equipment Upgrade

Fixed - Radiation Portal Monitor (RMP)

Vehicle monitors

Pedestrian monitors

3. Response Equipment Upgrade

Expert Support (at border or venue)

- Radioisotope identification device (RID)

Mobile Expert Support Team

- Neutron detectors
- HPGe
- Gamma/neutron

IAEA Nuclear Security Training Courses

Examples:

- State System of Accountancy and Control
- Security Awareness
- Combating Illicit Trafficking
- Design Basis Threat
- Front Line Officer
- Response to Nuclear Security Incidents
- Radiological Crime-Scene Management

Use of radiation detection equipment

Radiological Crime Scene Management

- Organization and Fundamental Stages –

Conduct detailed search & collect evidence

Photograph items before collection

Record evidence

Document Chain of Custody.

Decontamination/No Decontamination?

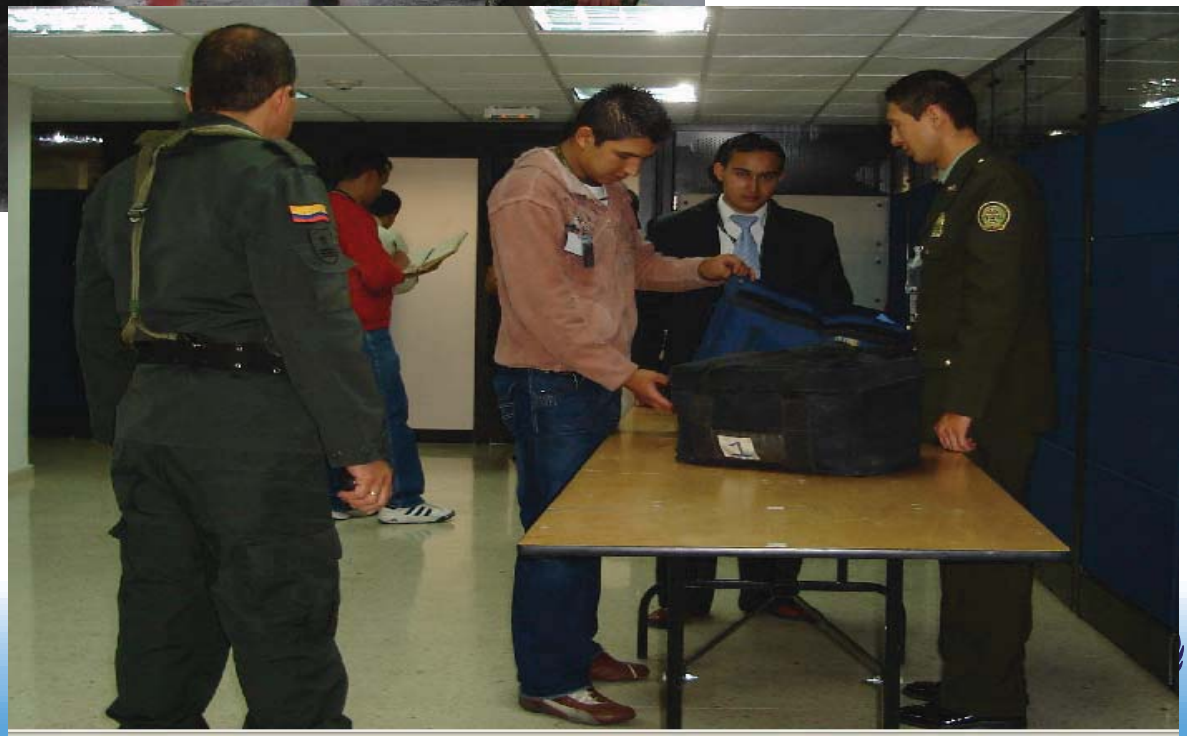
Final survey

Is additional work needed?

Release the crime scene

Release scene to authority having jurisdiction

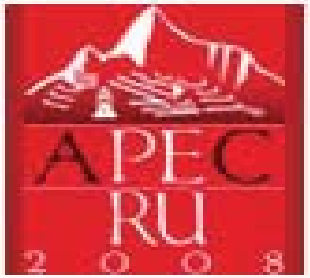
Simulation exercises



Risk Reduction – Nuclear Security at Major Pubic Events

Events:

- Athens Olympics
- World Cup, Germany
- PAN American Games, Brazil
- China Olympics
- APEC meeting, Peru



Areas Covered:

- Planning
- Capacity Building
- Training
- Information Support
- Technical Assistance
- Response

Nuclear Security
Coordinated Research Projects

'Development and Implementation of Instruments and Methods for Detection of Unauthorized Acts Involving Nuclear and other Radioactive Material'

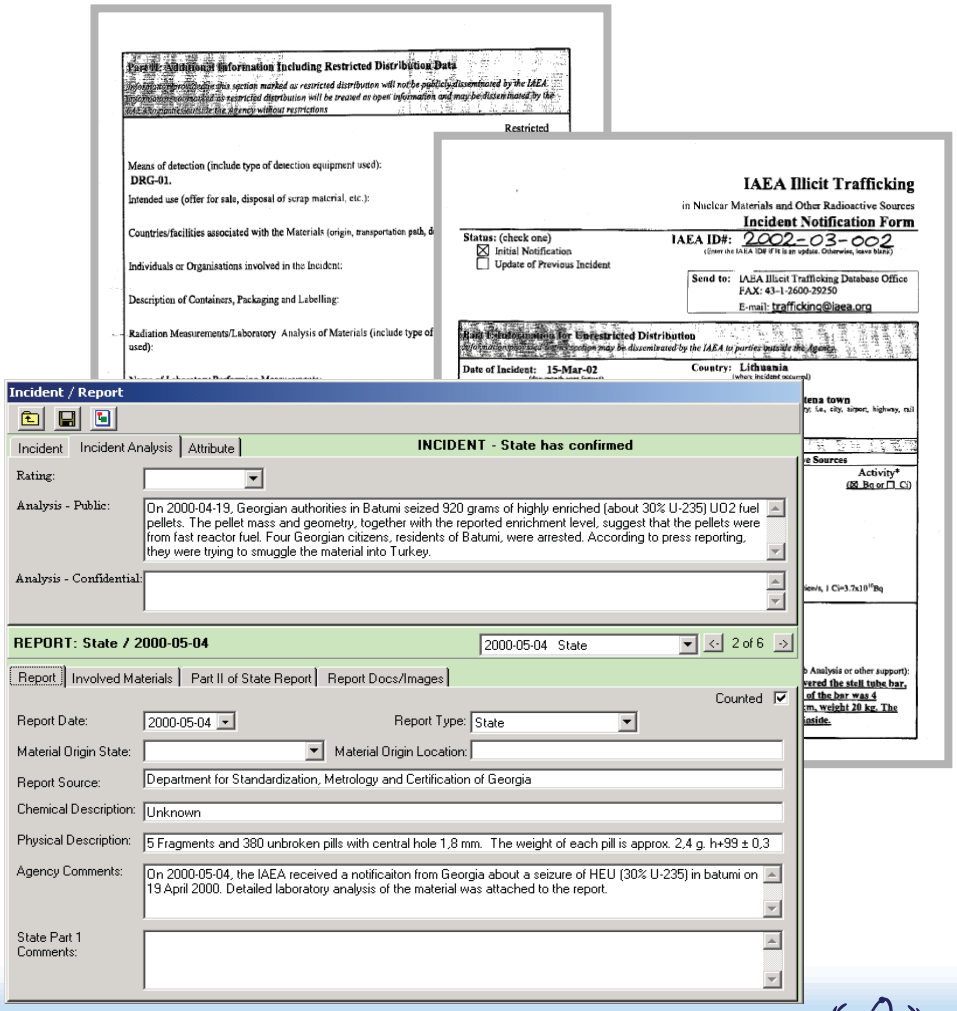
'Application of Nuclear Forensics in Illicit Trafficking of Nuclear and Other Radioactive Material'

'Development of Methodologies for Risk Assessment and State Management of Nuclear Security Regime'

G: Information Services
(112 States Participate)

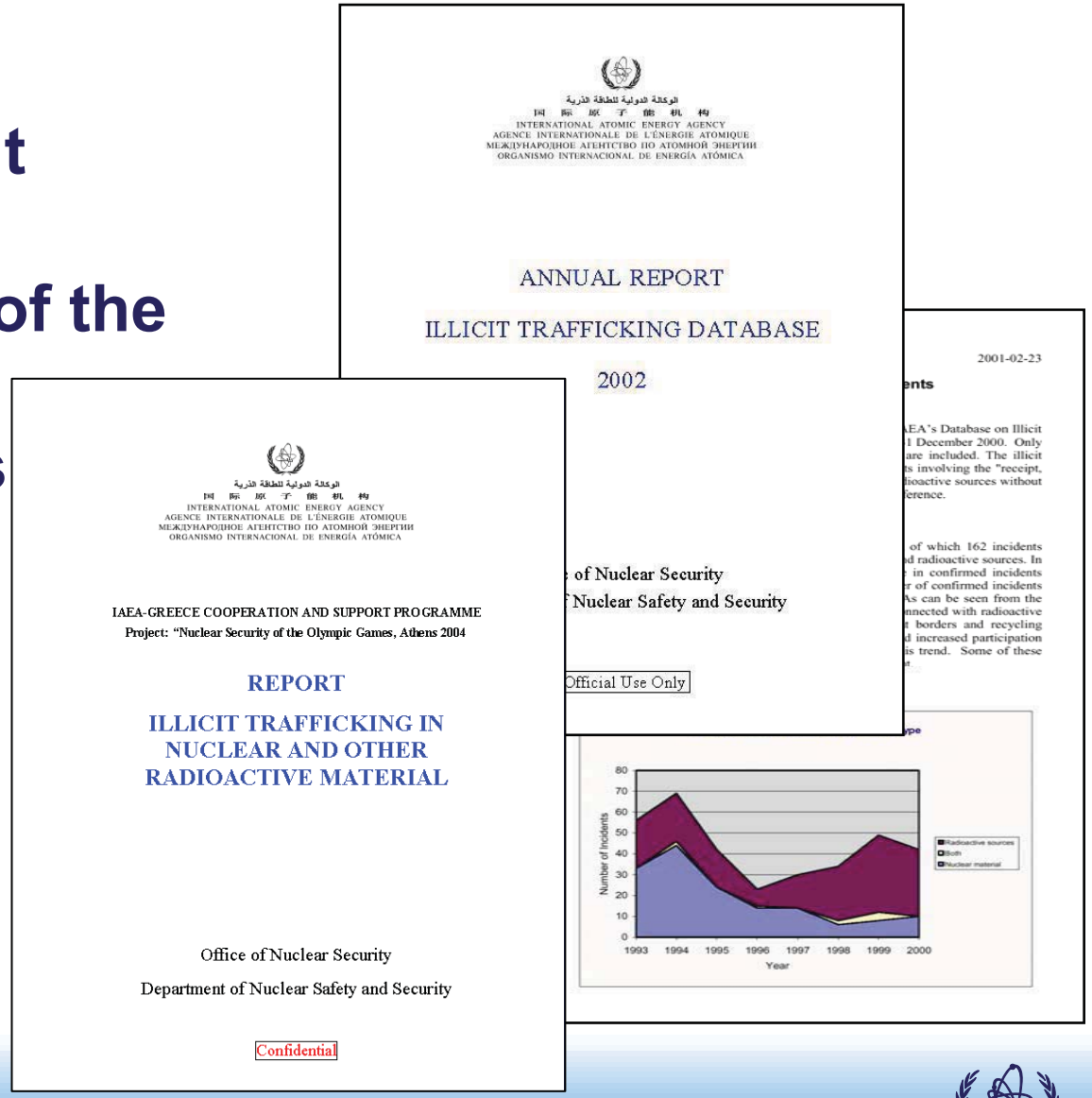
Illicit Trafficking Data Base

- **Over 1200+ confirmed incidents**
- **Includes information reported by States and open sources**
- **Covers nuclear and other radioactive material**



ITDB Information Products

- Individual incident reports
- CD-ROM version of the ITDB
- Quarterly Reports
- Annual Report
- Ad-hoc Reports
- Media responses
- WEB ITDB

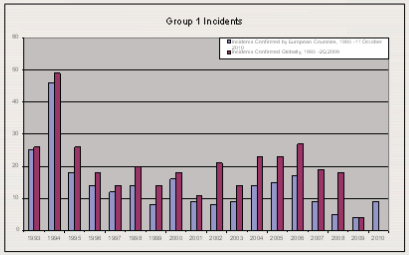


Analysis – European Focus

Group 1 - Unauthorized possession and related criminal activities

European Data

- 252 incidents involving illegal possession, attempted sale, smuggling, etc.
- 60% - nuclear
  34% - rad. source
  5% - both
  1% - scam
- Majority of materials not previously reported as lost or stolen



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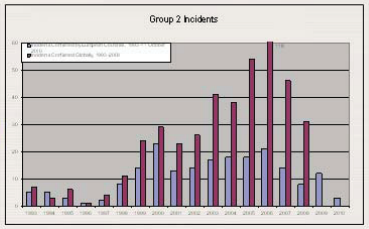
Group 2: Thefts and losses

European Data

- 199 incidents involved theft or loss of materials (mainly sealed sources part of industrial instruments)
- Over 90% of incidents involved radioactive sources (mainly Category 4 and 5)
- In 65% of cases, lost or stolen materials have not been recovered
- Mobile or portable industrial sources are most susceptible to theft or loss
- Sources/devices are especially vulnerable for theft/loss when located inside vehicles; during other transport; at bankrupt, or abandoned facilities



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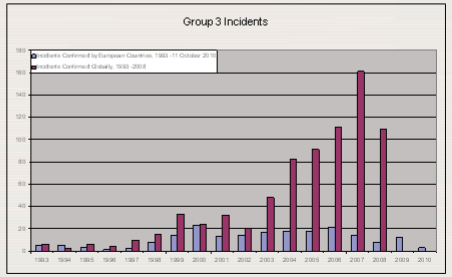
Group 3: Other unauthorized activities & events

European Data

607 incidents involved orphan sources, unauthorized disposals, and other material recoveries

- Primarily involved radioactive sources and radioactively contaminated materials
- These events highlight failures to control materials in use and disposal
- 2006-2009 – significant number of cases involving detection of goods contaminated with Co-60



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Concluding Remarks

The Agency has a number of programmes and activities that can benefit States in the implementation of their international Nuclear Security obligations, such as UNSCR 1540

The most practical approach is for States requiring assistance to work directly with the Agency and to report progress on the fulfillment of their obligations to Committee 1540

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