



# DSTL RADSAFE EXERCISE

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# Introduction

- Exercise
  - DSTL's response to a road traffic accident involving radioactive material
- Planning
- Narrative description
- Assessment

# Background

- Defence Science and Technology Laboratory (DSTL)
- Radiation Protection Adviser for the UK Ministry of Defence (MOD)
- Support to numerous emergency plans

# RADSAFE

- Meets requirement for transport emergency arrangements
- UK-wide, 24-hour response
- Three levels of response
  1. Constabulary Communications Centre (CCC)
  2. Nearest RADSAFE member
  3. Consignment owner

# Aim of exercise

- To test DSTL's RADSAFE Level 2 response to a road traffic accident involving radioactive material

# Specific objectives

- To test DSTL's
  - notification procedure
  - communications
  - procedures
  - specialist responders
  - interfaces with other agencies
  - support to recovery phase

# Planning and preparation

- 4 – 6 months before exercise
- 1 - 4 months before exercise
- The month before

# Description of exercise

- December 1<sup>st</sup> 2009
- Porton Down Range, Wiltshire
- Two DSTL directing staff



# Accident scene

- Van collision with car
- Van carrying two drum containers
  - soft waste
    - plutonium contamination, simulated by smoke detectors (Americium 241, 2.2 MBq)
  - one damaged drum, spilled contents
  - no fire or other hazard

# Accident scene



# Notification

- CCC RADSAFE callout
  - Wiltshire Police
    - Wiltshire Fire Service
  - DSTL (Alverstoke, Hampshire)
  - package consignor

# Initial actions/communications

- DSTL response
  - Duty Health Physicist (DHP)
  - Environmental Monitor (EM)
- DSTL initial contact with Wiltshire Police
- DSTL initial contact with consignor

# On-scene response (emergency services)

- Wiltshire Police
  - 100m cordon
- Wiltshire Fire Service
  - lead emergency service
  - 50m cordon

# On-scene response (Level 2)

- DSTL team
  - briefing meeting with emergency services
  - entry to inner cordon
  - contamination monitoring of people
  - radiation/contamination monitoring of area
  - air sampling

# On-scene response (Level 3)

- Consignor response team
  - not part of assessed exercise
  - entry to inner cordon
  - retrieval of material/packaging
  - survey of area and vehicles
  - preparation for decontamination
- Exercise ended

# Assessment

- DSTL response assessed
  - Notification and initial communications
  - Interfaces
  - Teamworking
  - Facilities and equipment
  - Competence of responders



# Assessment

- Notification and initial communications
  - timely
  - accurate information
  - appropriate advice
- Interfaces
  - good communications
  - action plans quickly agreed

# Assessment

- Teamworking
  - generally good
  - recommendation: demarcation of roles
- Facilities and equipment
  - recommendation: response vehicle
  - recommendation: equipment review/update

# Assessment

- Competence of DSTL responders
  - professional and knowledgeable
  - good interaction with other agencies
  - hazard identified and appropriate advice given
  - recommendation: clearance monitoring
  - recommendation: minimal area survey

# Training day

- Training event for DSTL staff
  - exercise scenario
  - police and fire service officers
- Much more useful than a table-top exercise

# Summary

- Successful demonstration of DSTL's response to a transport accident involving radioactive material
- Porton Down Range
- Use of radioactive sources
- Valuable lessons