

# **IAEA INCIDENT AND EMERGENCY CENTRE**

## **Emergency Preparedness and Response**

**2009 ISOE International ALARA Symposium  
on Occupational Exposure Management  
in Nuclear Facilities, October 2009**

**Warren Stern, Head, IEC**



**IAEA**

International Atomic Energy Agency

# **IEC - Mission Statement**

**Global Focal Point**

**for**

**International Preparedness,  
Communication and Response**

**for**

**Nuclear and Radiological Safety or  
Security Related Incidents,  
Emergencies, Threats or Events of  
Media Interest**

# IEC – Rationale - Why are we needed

## TODAY'S WORLD:

- ➔ Expansion of use of nuclear power and use of radiation sources
- ➔ 21<sup>st</sup> century threats

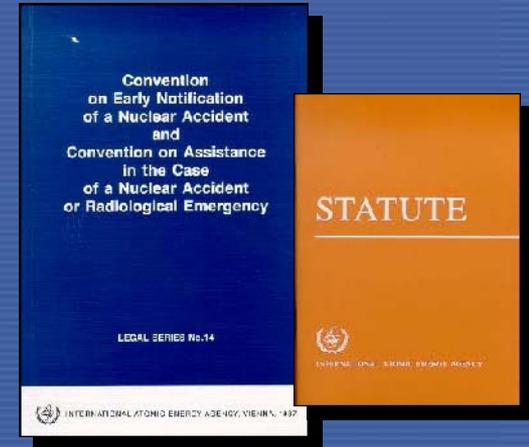


- ➔ Treaty obligations

# IEC – Rationale - Why are we needed

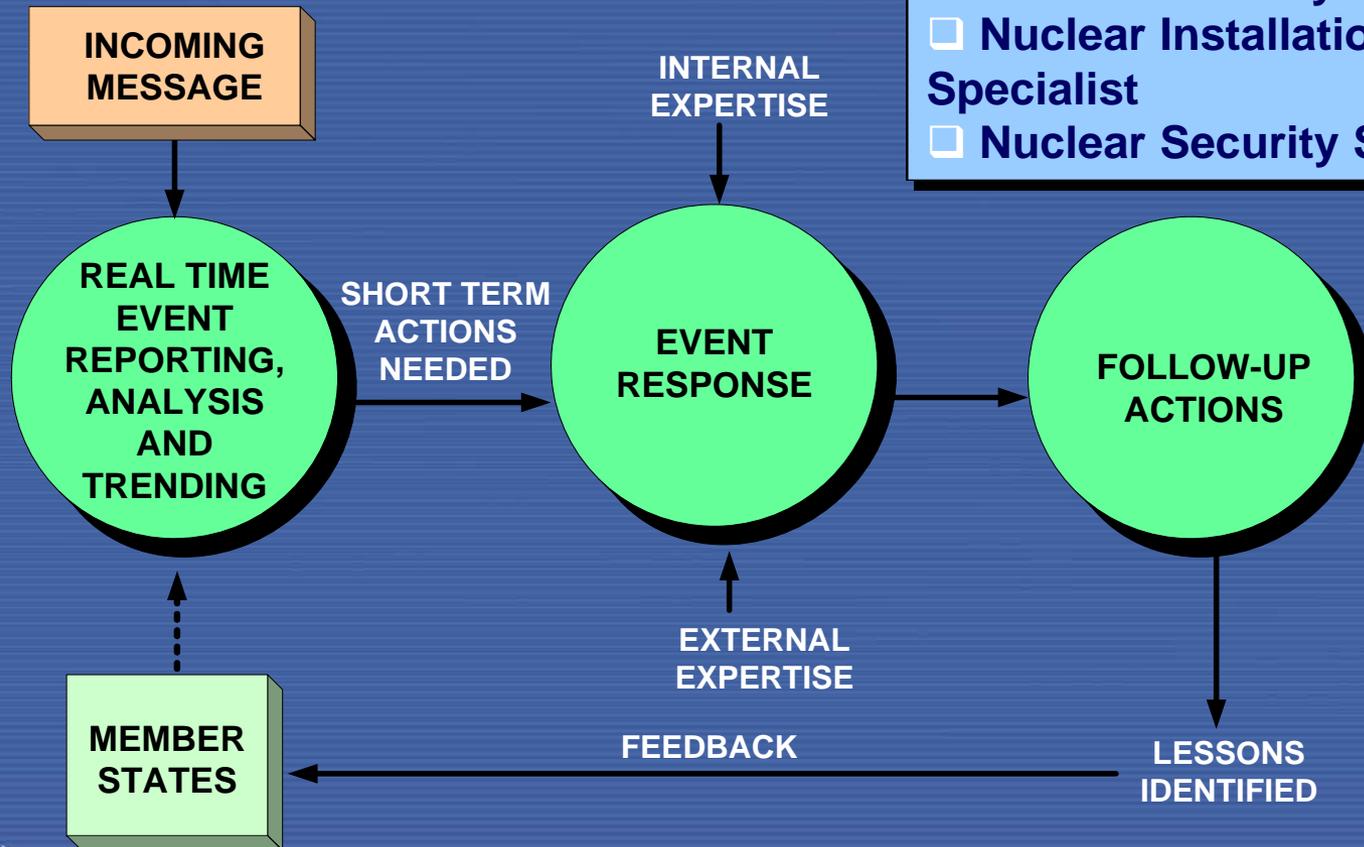
## IEC Activities based on:

- IAEA Statute
- Convention on Early Notification of a Nuclear Accident
- Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency
- Convention on Physical Protection of Nuclear Material



# IEC – Flow of Response

## 24/7 Coverage



- ON CALL:**
- Emergency Response Manager
  - Logistics Support Officer
  - Radiation Safety Specialist
  - Nuclear Installation Safety Specialist
  - Nuclear Security Specialist

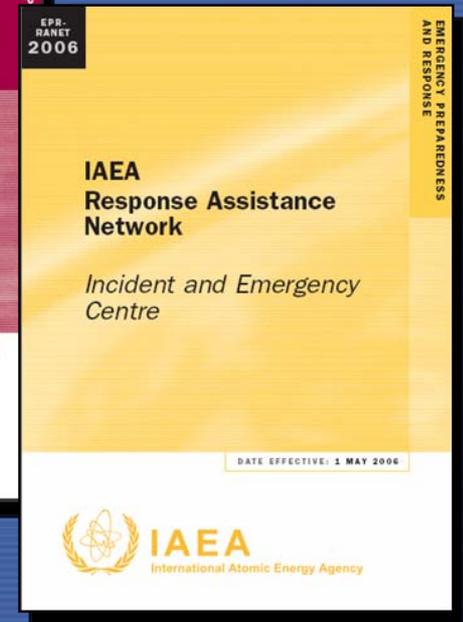
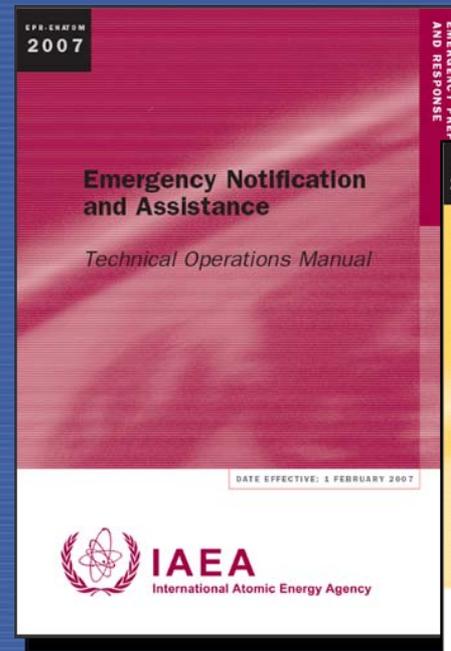
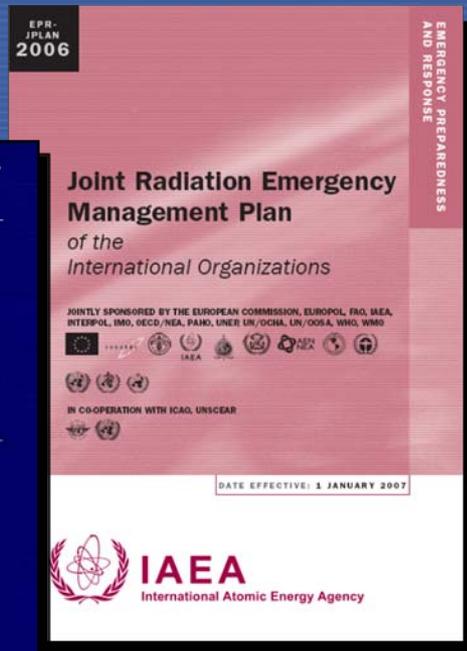
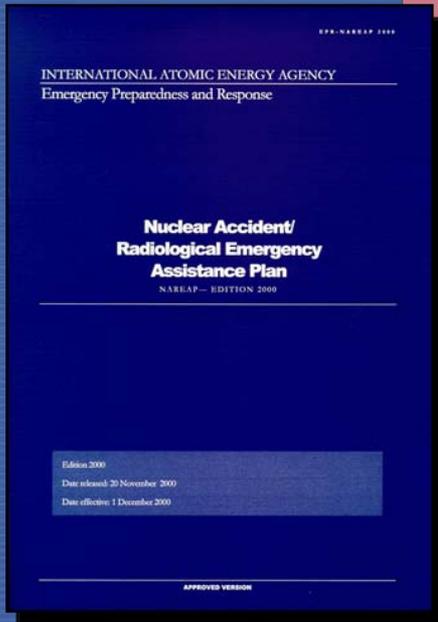


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Incident and Emergency Centre

# Response Plans and Protocols

We follow procedures as agreed to MS:



# RANET

## Response Assistance Network

Registered	Registration Date	Aerial survey	Radiation Monitoring	Environmental measurements	Source search/recovery	Assessment and advice	Medical support	Public health protection	Biodosimetry	Internal dose assessment	Bioassay	Histopathology	Dose reconstruction
Argentina	26/09/2008								FAT/EBS				
Australia	19/03/2008		FAT		FAT	FAT							FAT
Czech Republic	15/04/2009	EBS	EBS	EBS	FAT/EBS	EBS			FAT/EBS	EBS	EBS		FAT/EBS
Egypt	11/08/2009		FAT	FAT/EBS		EBS	FAT/EBS						
Finland	17/12/2007								EBS				
France	19/08/2008		FAT	FAT/EBS	FAT	FAT/EBS	EBS		EBS	FAT/EBS	EBS		EBS
Hungary	09/06/2008		FAT	FAT/EBS	FAT	FAT/EBS	FAT	FAT	EBS	EBS	EBS		
Mexico	18/12/2007		FAT	FAT	FAT					FAT			
Nigeria	29/08/2008	FAT	FAT	FAT	FAT	FAT							FAT
Pakistan	11/02/2008		FAT/EBS	FAT/EBS	FAT/EBS	FAT/EBS							
Romania	16/05/2008	FAT	FAT/EBS	FAT/EBS		EBS				EBS			EBS
Slovenia	05/02/2008		FAT/EBS	FAT/EBS	FAT/EBS	FAT	FAT		FAT	FAT			FAT
Sri Lanka	13/12/2007		FAT	FAT	FAT								
Sweden	11/03/2008	FAT	FAT	FAT/EBS	FAT	FAT/EBS				EBS			
Turkey	11/03/2008		FAT/EBS	FAT/EBS	FAT/EBS				EBS				
USA	20/12/2007					EBS	FAT/EBS	FAT/EBS	FAT/EBS	FAT/EBS			

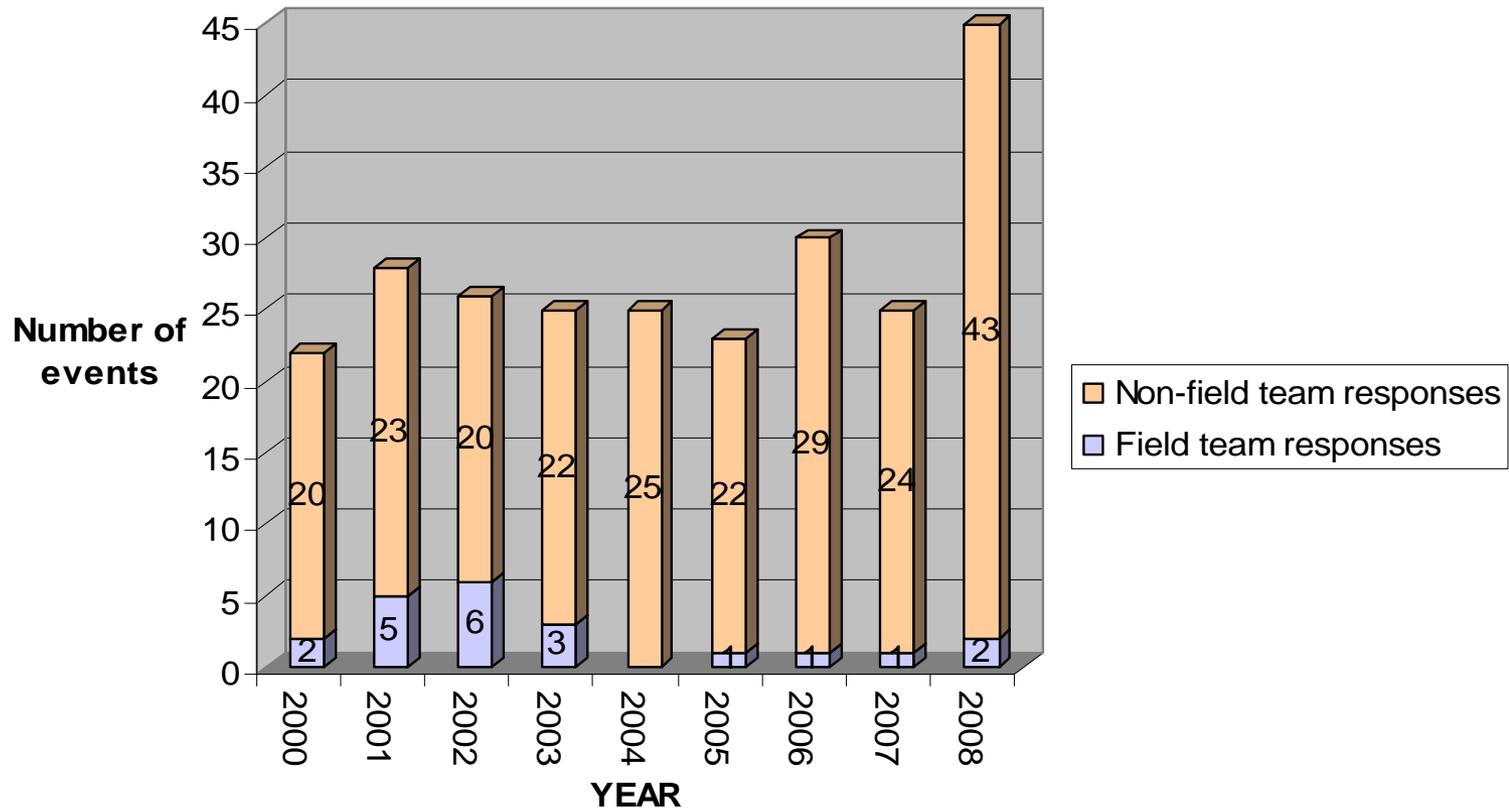


FAT – Field Assistance Team

EBS – External Based Support

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# IEC - Responses



Updated Dec 2008

# Assistance Mission Chile 2005



**Radiological  
Accident  
Coordination of  
medical assistance  
and dose  
reconstruction**

# Assistance Mission Benin, 2008



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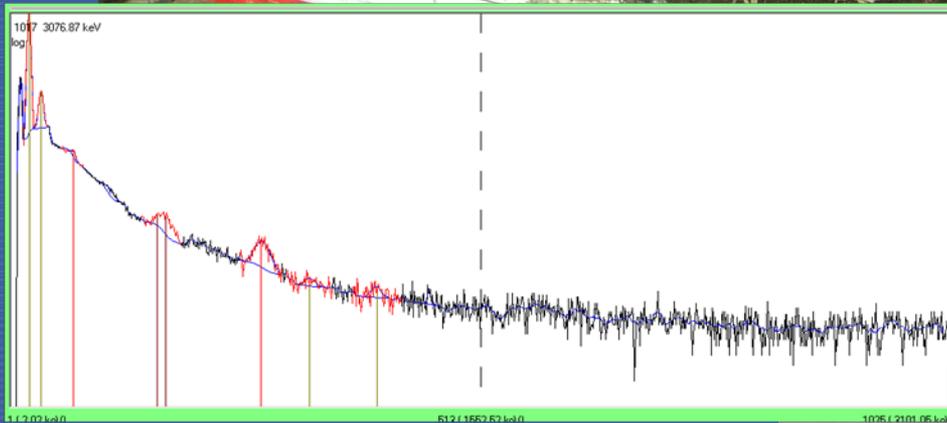
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# Assistance Mission Benin, 2008

found source



AMNV.340 TN model 5020



# Assistance Mission Tunisia, 2008



# Emergency notification – ENATOM/ENAC Forsmark NPP, Sweden, March 2007

ENAC  
Emergency Notification and Assistance Convention

Current User: 20000008  
IEC Status: Normal/Ready  
Date/Time (UTC): 2007-09-11 15:06

IAEA  
International Atomic Energy Agency

Emergencies | Submitted Messages | My Tasks | Documents | External Links | Address Book | Help | Log

## Emergencies

This page displays a list of emergencies and provides a facility to filter and find one(s) of interest.

**Find Emergencies**

To find other emergencies, specify criteria and click the *Find* button.

Status:

Country:

Type:

### List of Emergencies

List of **Actual** emergencies for **Sweden** with **Terminated** status(es)

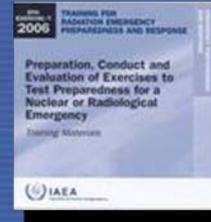
State	Emergency	Last Update	Status	Action
Sweden	Bomb threat against Forsmark NPP	2007-04-13 05:40	Terminated	<a href="#">View Status</a>



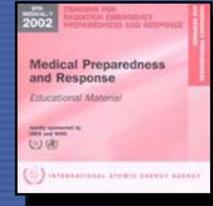
**Bomb threat against  
Forsmark NPP – IEC set to  
Basic Response Mode**

**21 March 2007,  
07:30 hrs UTC**

# Standards, Guidance and Tools for Strengthening States' Preparedness

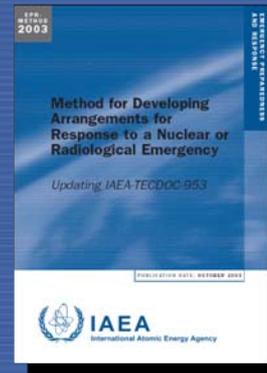


Exercise-TM, 2006

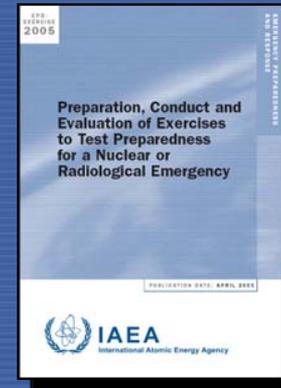


Medical-TM, 2002

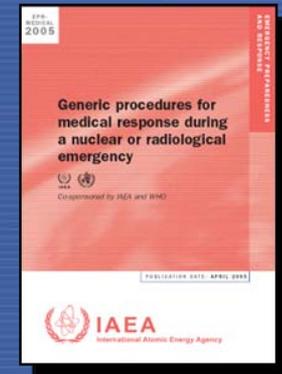
## EPR Series



Methods, 2003



Exercise, 2005



Medical, 2005

# Counterparts

- ❑ Member States' Competent Authorities
- ❑ Regulatory Bodies
- ❑ Emergency Planners
- ❑ Emergency Managers
- ❑ First Responders
- ❑ Radiological Assessors
- ❑ Medical Community



# ConvEx-3 Mexico, 2008



# First Responders Manual Exercise



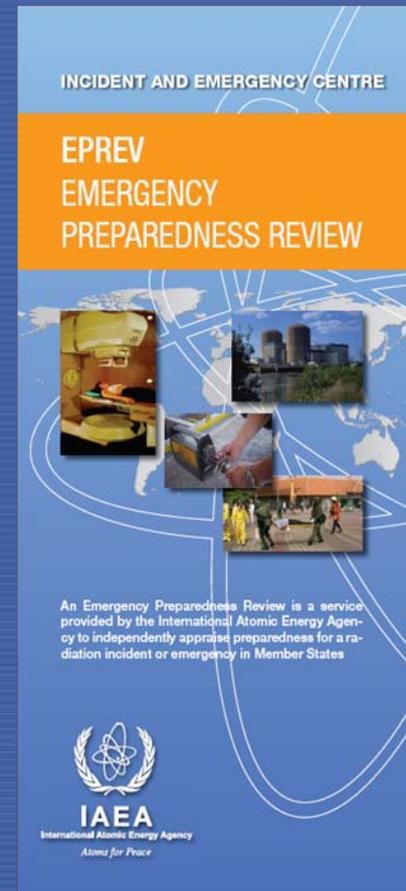
**RDD Exercise in Indonesia using  
FIRST RESPONDER MANUAL  
(IAEA, 2005)**



# Emergency Preparedness Review

## EPREV missions

- Indonesia 2004
- Peru 2005 (PAHO)
- Qatar 2006
- Egypt 2007
- Russia 2007
- Tajikistan 2007
- Uzbekistan 2008
- Tunisia 2008
- Montenegro 2008
- Kyrgyzstan 2008



# Future Directions

- Harmonize reporting mechanisms
- Focus on security response capabilities (limited by availability of resources)
- Increase Member State preparedness (Action Plan)
- Increase outreach effort ensuring Member States are aware of IEC capabilities and services