

# Emergency Preparedness and Response in the Event of a Nuclear Detonation – the Case of Norway

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# Nuclear emergency preparedness organization

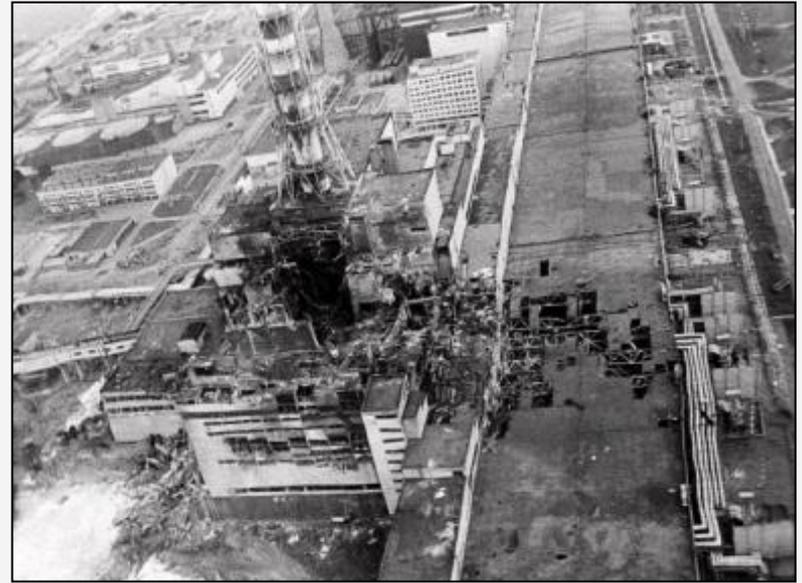


# What are we prepared for?



## Scenario I

Large airborne release from foreign facility



## Scenario II

Large airborne release from domestic facility



## Scenario III

Local event with mobile source



## Scenario IV

Local event that develops over time



## Scenario V

Release to marine environment

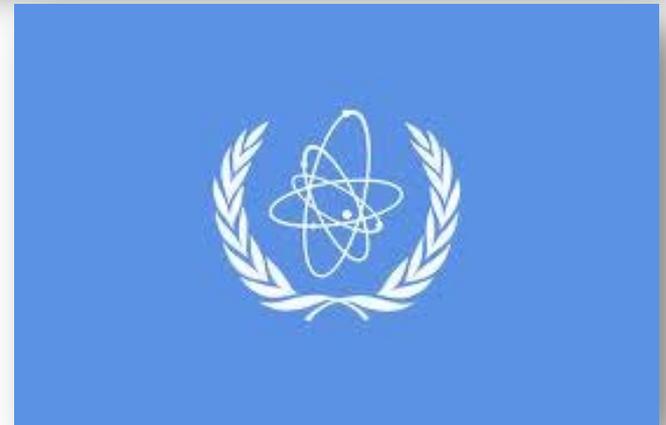
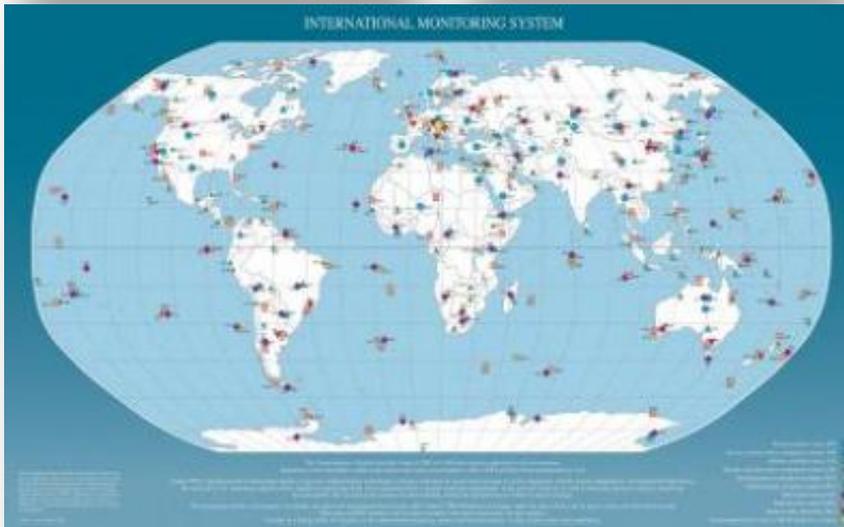
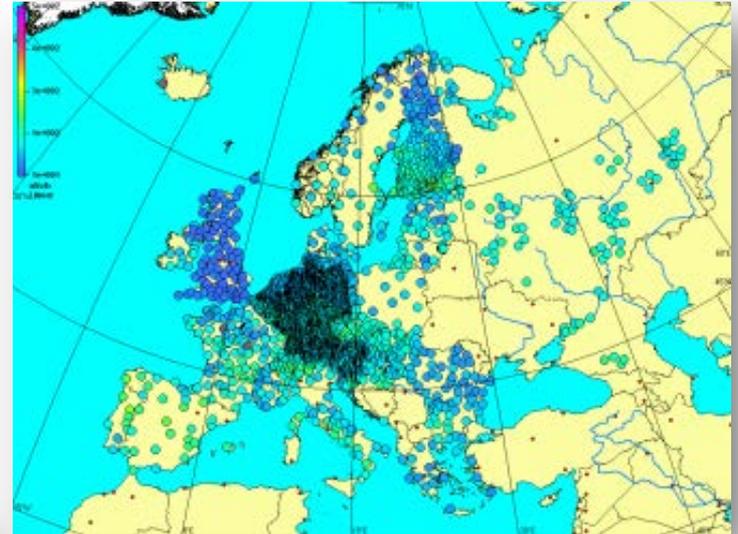


## Scenario VI

Serious accident abroad that can affect Norwegian interests but not our territory



# Early Warning Systems



# Countermeasures

Secure contaminated areas	✓
Emergency evacuations of local communities	✓
Short-term measures/restrictions regarding food production	✓
Decontamination of contaminated people	✓
Advise the general public – stay indoors	✓
Advise – staying in shelters	NA
Advise – iodine tablets	✓
Advise - dietary	✓
Advise – other dose-reducing measures	✓

*Resources are limited*

We are not prepared...

...for this



# Nuclear Weapon Detonations in Norway

Today:

Unlikely used against Norway  
either as a result of terrorism or warfare

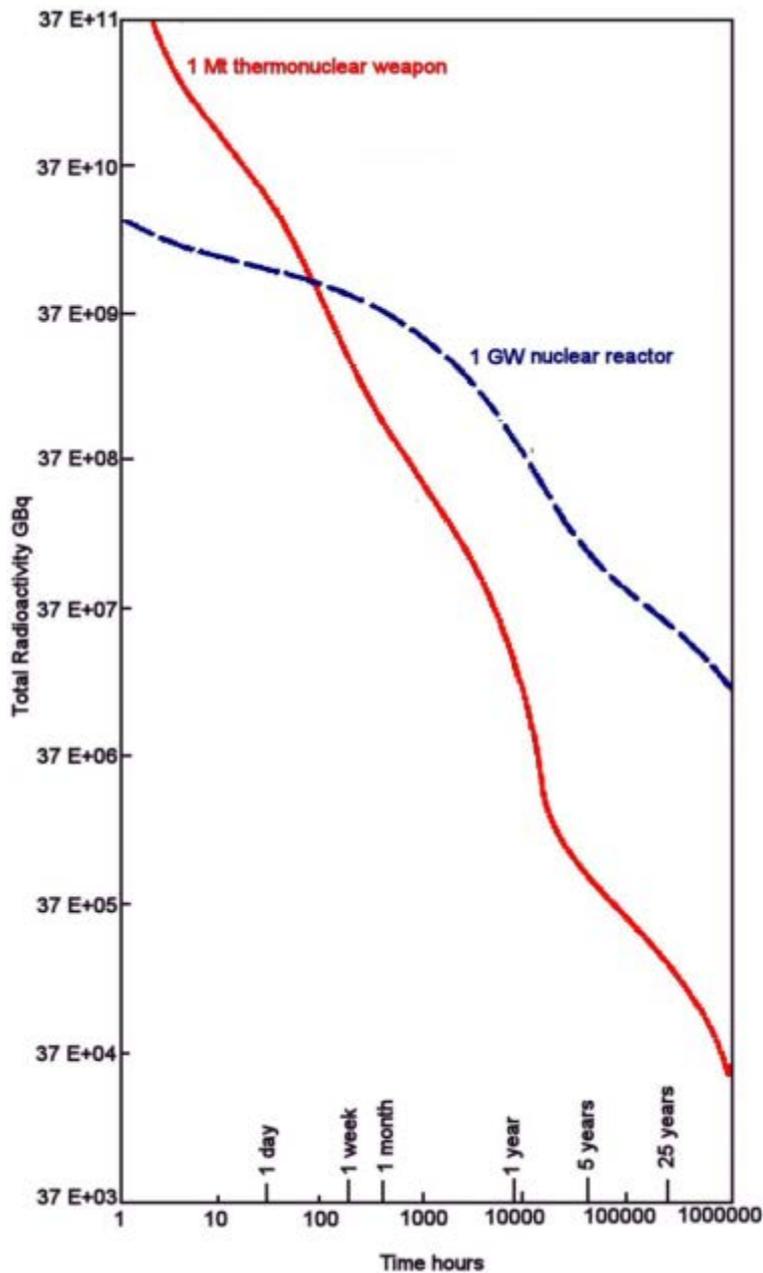
But:

Some 25 000 nuclear weapons still  
exists worldwide

Fissile material – A security challenge

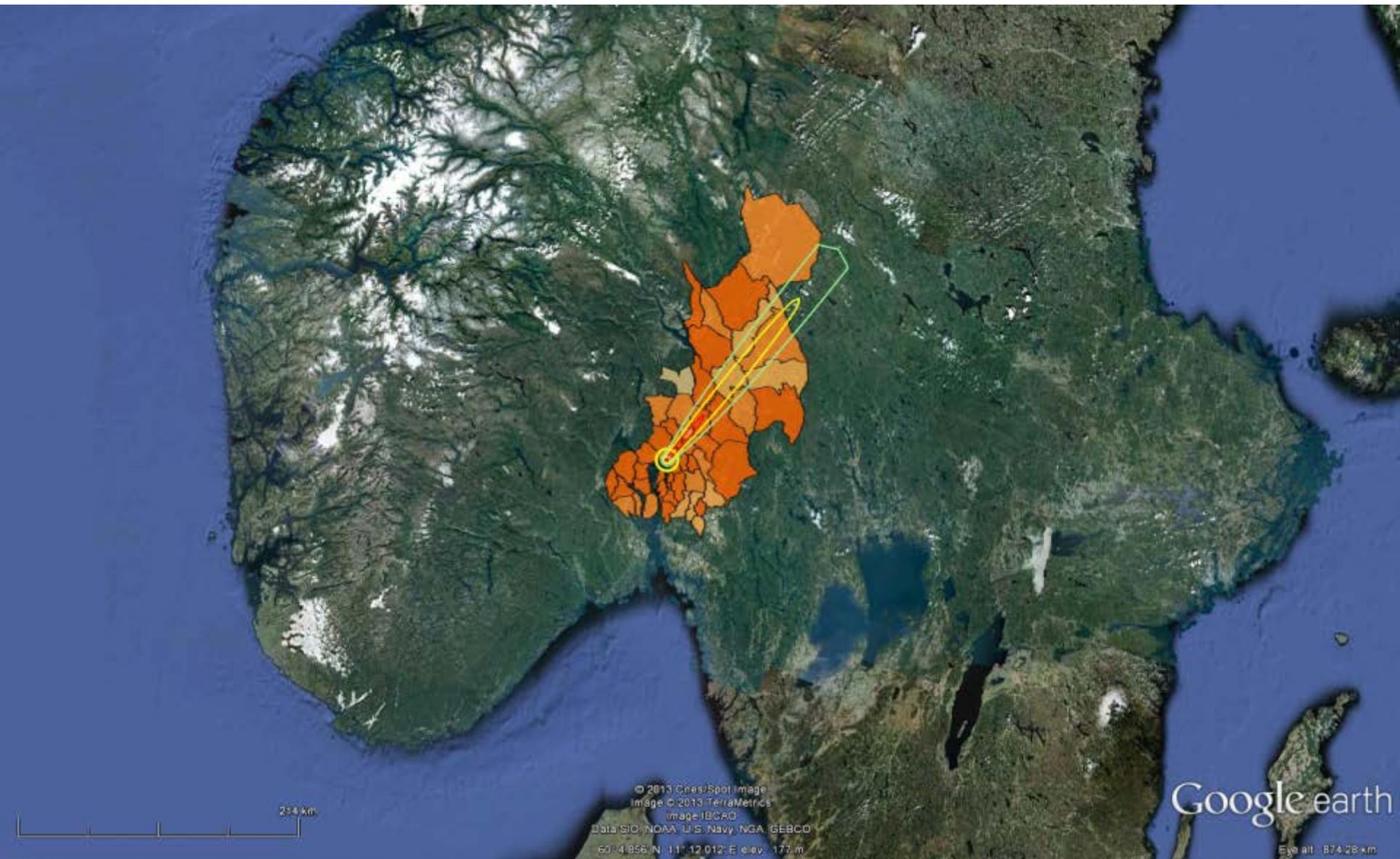
Nuclear terrorism?





*The gravest conceivable accident to a nuclear reactor is far less destructive than the detonation of a nuclear weapon, even if it is imagined that the weapon causes harm only by radiation*

(Fetter and Tsipis, 1981)



# Countermeasures

Secure contaminated areas	x
Emergency evacuations of local communities	x
Short-term restrictions regarding food production	x
Decontamination of contaminated people	x
Advise the general public – stay indoors	x
Advise – staying in shelters	(✓)
Advise – iodine tablets	x
Advise - dietary	x
Advise – other dose-reducing measures	x

*Resources are limited. Time is short.*

# Conclusions

Nuclear emergency preparedness and response in Norway is today dimensioned for nuclear emergencies except for nuclear detonations

- Large scale emergencies of this type are challenging
- Early warning systems and countermeasures exists

In the event of a nuclear detonation adequate response countermeasures are non-existent

Thank you for your attention

