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FRENCH APPROACH TO PROTECTION OF CRITICAL SERVICES : THE NUCLEAR FIELD

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PREAMBLE



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S · G · D · N

- The physical protection of the nuclear sector is included in the French global approach of State protection and security.

SUMMARY

A STATE SECURITY ORGANIZATION BASED ON A DOUBLE STRUCTURE

- The national warning system called “Vigipirate” Plan
- The security of activities of critical importance and vital areas

Application to protection of the nuclear sector

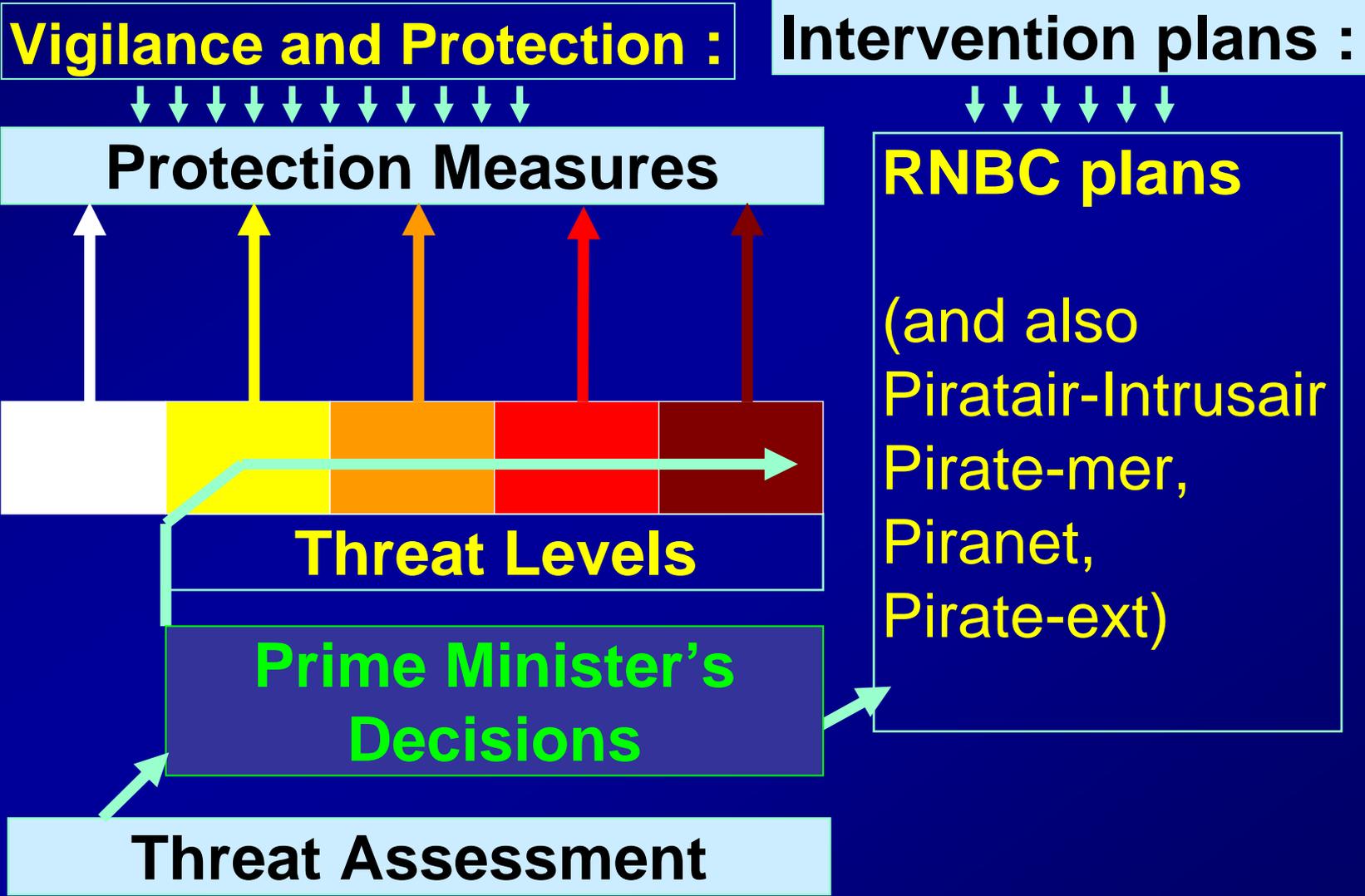
- The Nuclear Sector National Security Directive
- The Nuclear Operator Security Plan
- The way ahead



VIGIPIRATE'S APPLICATION PRINCIPLES

- Threat assessment results in activating a warning level and setting up flexible measures of vigilance, prevention and protection, adapted to the threats (RNBC, cyber, on the ground, in the air or at sea).
- Principle of shared responsibility for security, implying a permanent security posture and graded measures, which ensure a collective response to terrorist threats.

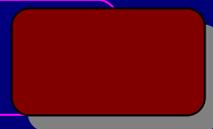
VIGIPIRATE'S ARCHITECTURE



Security Goals

THREAT ASSESSMENT

Assessing Threat...

- 1. No threat indication
- 2. Imprecise threat 
- 3. Plausible threat 
- 4. Highly probable threat 
- 5. Certain threat 

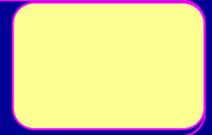
... Leads to warning levels ...



SECURITY GOALS

... To which security goals are associated :

Raising awareness (local measures)
With minimum perturbations in normal activity



Preventing a risk of a plausible terrorist action,
At the cost of low constraints in normal activity



Preventing an established risk of serious attack(s), by
putting in place the needed means, with constraints on
national activity



Preventing a risk of major attacks, simultaneous or not,
with possibly very restricting measures

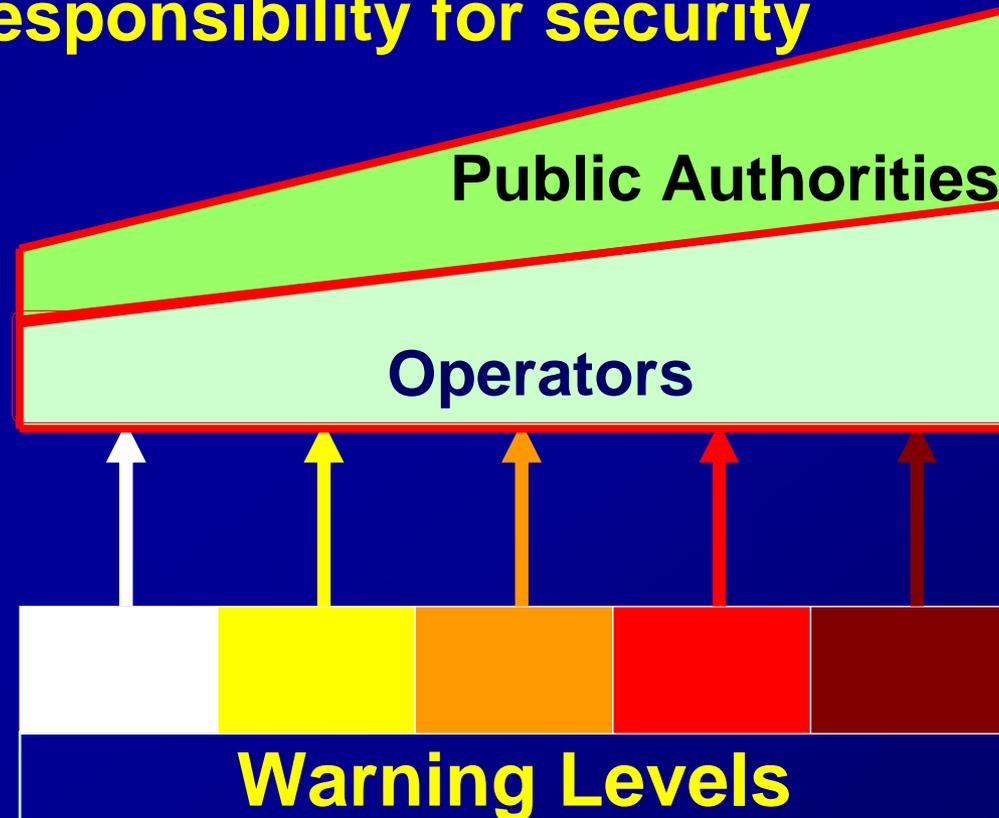


... Then sector specific protection measures ...

VIGIPIRATE'S ARTICULATION

From security goals to security measures

- Modular measures
- Empowerment of actors
- Shared responsibility for security



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PROTECTION OF CRITICAL SERVICES LEGAL FRAMEWORK

- A 2006 decree aims at protecting activities of critical importance and is applicable to operators as well as to public authorities.
- It requires operators to participate in protecting their installations of critical importance by establishing special protection plans.
- The essential sectors are related to :
 - State activities
 - Citizen needs
 - Economic and social life (nuclear field)

PROTECTION OF CRITICAL SERVICES

KEY PRINCIPLES

- This is a “risk managed” and “threat driven” approach
- A risk analysis methodology allows efficient use of resources
- There is a strong collaborative process between Government and operators
- Build a logic of protection of vital areas within a coherent approach (nation, sector, operator, vital area)

PROTECTION OF CRITICAL SERVICES

GENERAL SCOPE

- The aim is to :
 - Ensure better application by the operators of the “Vigipirate” plan
 - Involve operators in protecting their vital areas
 - Limit and rationalize the number of vital areas to be protected
 - Have at disposal clear and homogeneous procedures and definitions

PROTECTION OF CRITICAL SERVICES GENERAL PROCESS

- **Four types of plans are required, each of them addressing a different layer:**

- A National Security Directive for every sector of activities of critical importance (e.g. a Sector Specific Plan)
- An Operator's Security Plan (OSP) established by each operator of critical importance
- A Special Protection Plan (SPP) developed by the operator for each point of critical importance (e.g. vital area)
- An External Protection Plan (EPP) established by local public authorities together with the operator for each vital area

DUTIES OF OPERATORS OF CRITICAL IMPORTANCE



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- To appoint their defence and security delegates (i.e. security liaison officers) (central and local)
- After a risk analysis, to establish their operator's security plan (OSP) taking into account the SSP
- To locate their vital areas, each of them being the subject of a special protection plan (SPP) and an external protection plan (EPP)



THE NUCLEAR SECTOR

- Like any other sector, the nuclear field is concerned by the warning “Vigipirate” Plan and the specific measures taken regarding the current threats.
- As a sector a critical importance, it is submitted to a more dedicated risk analysis and to a protection system consistent with threats of reference, including a control process

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APPLICATION TO THE SECURITY OF THE NUCLEAR SECTOR

THE NUCLEAR SECTOR NATIONAL SECURITY DIRECTIVE

- Established by the ministry of energy – security authority for the nuclear sector ;
- Set the security framework and objective resulting from threat scenarios of reference (Design Basis Threat – DBT) related to nuclear facilities ;
- In full compliance with the amendment of the CPPNM of the IAEA.



NUCLEAR SECTOR NATIONAL SECURITY DIRECTIVE

- ASSIGNS NUCLEAR OPERATORS OF VITAL IMPORTANCE
- APPLIES TO NUCLEAR FACILITIES WHICH :
 - are essential for the sustainability of the nation activity ;
 - could lead to significant damages to the population or the environment (radioactive releases).
- ⇒ NUCLEAR POWER PLANTS
- ⇒ FUEL CYCLE FACILITIES



NUCLEAR SECTOR NATIONAL SECURITY DIRECTIVE

From two sets of threat scenarios (DBT)

- Theft of nuclear material
- Sabotage of nuclear material or facilities

both including internal and external threat

- **Through a risk analysis**
- **To the definition of security measures**
 - based on the principles of graded approach and defence in depth ;
 - Taking into account a shared responsibility between public authorities and the nuclear operators.



THE NUCLEAR OPERATOR SECURITY PLAN

- Established by EACH nuclear operator of vital importance (Strategic document) ;
- Sets the list of the VITAL AREAS (Sites of critical importance) ;
- Defines security measures

FOR EACH VITAL AREA



SPECIAL PROTECTION PLAN
by the operator

EXTERNAL PROTECTION PLAN
by the local public authority
and the operator

SECURITY OF THE NUCLEAR SECTOR THE STEP AHEAD



STILL SOME WORK TO ACHIEVE :

- Finalization of the integration of the nuclear transportation field in the Nuclear Sector National Security Directive
- Current work on a regulation for the physical protection of radioactive sources under the authority of the ministry of energy



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**THANK YOU
FOR YOUR ATTENTION**

**Mr Jean–François DODEMAN
Secretariat – General for National Defence
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