

*Coordination with emergency services:
One of the main functions of a Tunnel Safety Officer.
Feedback from experience.*

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WHEN YOU NEED TO BE SURE



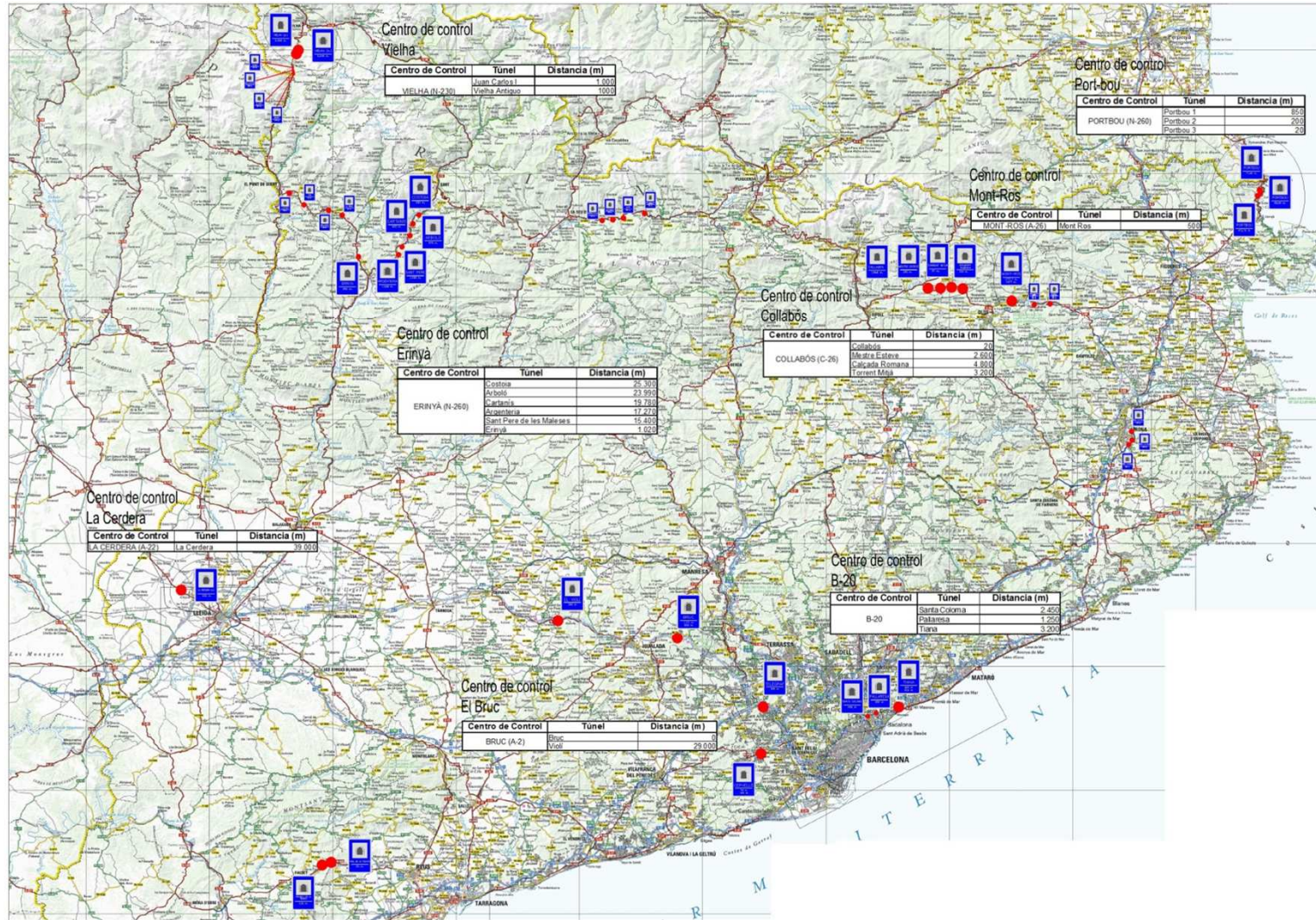
SGS OVERVIEW

- Introduction
- The EU directive: main tasks of a Tunnel Safety Officer
- Planification of emergency exercises. Main goals
- Description of exercises (including previous visits)
- Conclusions of exercises
- Feed back

- EU directive (2004):
 - Creation of Tunnel Safety Officers
 - L>500m
 - Trans-european road network

- RD 635/2006:
 - Transposition in Spain
 - Includes all tunnels
 - Modification of RD: documentation for L>250m

INTRODUCTION. STATE ROAD NETWORK (CATALONIA, SPAIN)



INTRODUCTION. THE ROAD NETWORK

- Tunnels belonging to State Road Network in Catalonia (31.895 km², Spain):

LENGTH	NUMBER OF TUNNELS
> 5000m	1
> 1000m	7
> 500m	8
< 500m	37
TOTAL	53

- Total length 27,9 km
- No significant accidents or incidents up-to-date
- Tunnels belonging to Central State
- Emergency services belonging to Autonomus Community Government

EU DIRECTIVE: MAIN TASKS OF A TUNNEL SAFETY OFFICER

- a) Ensure coordination with emergency services and take part in the preparation of operational schemes
- (b) Take part in the planning, implementation and evaluation of emergency operations
- (c) Take part in the definition of safety schemes and the specification of the structure, equipment and operation in respect of both new tunnels and modifications to existing tunnels
- (d) Verify that operational staff and emergency services are trained, and he/she shall take part in the organisation of exercises held at regular intervals
- (e) Give advice on the commissioning of the structure, equipment and operation of tunnels
- (f) Verify that the tunnel structure and equipment are maintained and repaired
- (g) Take part in the evaluation of any significant incident or accident as referred to in Article 5(3) and (4)

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EU DIRECTIVE: MAIN TASKS OF A TUNNEL SAFETY OFFICER

⇒ *“SHALL COORDINATE ALL PREVENTIVE AND SAFEGUARDS MEASURES TO ENSURE THE SAFETY OF USERS AND OPERATIONAL STAFF”*

- Full scale exercises every four years
- Partial and/or simulation exercises every year in between.



PLANIFICATION OF EMERGENCY EXERCISES. MAIN GOALS

Evaluation of

- coordination between participants involved
- emergency response plan (drawn up jointly with emergency services)
- tunnel staff efficiency and suitability of operational schemes
- efficiency of infrastructure and equipment

Final report and conclusions



PLANIFICATION OF EMERGENCY EXERCISES

- Previous meetings and visits by emergency services
- Specific requirements on documentacion (prior to exercises). Possible amendments at external services request
- Definition of kind, situation & plot of incident
- Purpose, ressources, operational scheme tested
- Evaluation procedure. Reports
- Feedback



PLANIFICATION OF EMERGENCY EXERCISES. PREVIOUS VISITS



**Mont-ros and Collabós
Tunnels. 3,6 km Nov 2009**

**Erinyà, St Pere, Argenteria
Tunnels (2,8km) Nov 2010**





PLANIFICATION OF EMERGENCY EXERCISES. SPECIFIC TESTS



Mont-grès Tunnel Nov 2011



Bruc Tunnel Jul 2005



PLANIFICATION OF EMERGENCY EXERCISES. RESSOURCES



Portbou Tunnel Oct 2010



Bruc Tunnel Jan 2008



PLANIFICATION OF EMERGENCY EXERCISES. RESSOURCES



Mont-ros Tunnel Nov 2010



Tiana Tunnel Nov 2011

- Two administrations involved
- High documentation requirements
 1. What to do in case of insufficient documentation?
 2. Official” emergency exercise or “unofficial”
- Other exercises being done
 - Train, industry, underground, harbours, airports

PLANIFICATION OF EMERGENCY EXERCISES. OTHER ASPECTS

- Volunteers wanted
- Press?
- We need damaged vehicles

SGS

Portbou Tunnel June 2010

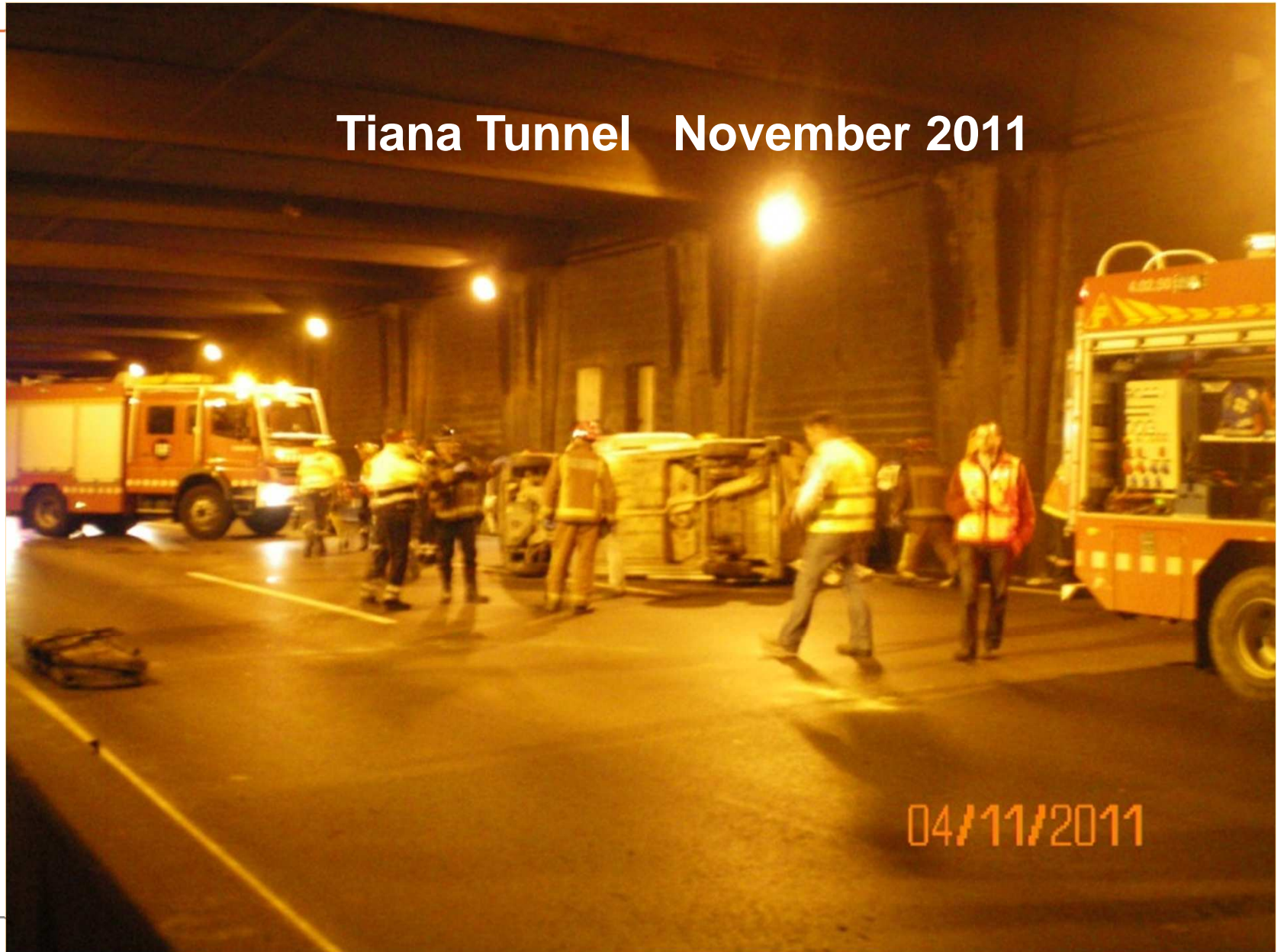


01/06/2010

Mont -ros Tunnel November 2010



Tiana Tunnel November 2011



04/11/2011

- Coordination also involves updating documentation and operational schemes
- Tunnel visits are even more useful than the exercises
- The resources in an exercise are less important than coordination between actors
- Coordination must be a goal for all the actors
- Difficulties to encounter in organising emergency exercises-> unofficial exercises



FEEDBACK EXAMPLES

- Planning visits prior to emergency exercises
- Incident definition following to conclusions of visits
- Place for coordination between heads of service
- Importance of complete documentation, available for all the actors



THANK
YOU!