



Day 1:		FIRE IN TUNNELS: 16 HOUR COURSE	
Time	Activity	Instructors	Remarks
9:00 9:45	INTRODUCTION	TST	15min: Explanation about San Pedro facilities. 15min: Introduction to fire in tunnels.15min: Course programme.
9:50 10:35	Intervention problems	TST	Introductory class describing the characteristics and general problems of fires in tunnels and what makes them different from other types of confined fires.Main causes and risks
10:40 11:25	Fire evolution	TST	Explanation of the principles of the development of a fire in a tunnel, the temperature evolution and smoke dynamics.
30 min	COFFEE BREAK		At the San Pedro facilities
11:55 12:25	<b>Workshop: getting to know the equipment</b>	TST	Inspection of self-contained respiratory apparatus, assembly and adaptation. Inspection of portable radios, hose reels and all other equipment.
12:25 14:00	<b>PRACTICE ON SMOKE EVOLUTION: ventilation problems</b>	TST	The whole group will enter the tunnel with singlebottles, a test will follow on smoke evolution, without forced ventilation first and then with ventilation. Observation of stratification, backward movement, and smoke drop, etc.
1h 30 min	LUNCH		Nearest restaurant (10min)
15:30 16:15	Intervention methodology I	TST	Intervention guidelines adapted to the general problems of tunnels, establishing the sequences from the receipt of the notification to the solution of the incident.
16:20 17:05	Intervention methodology I	TST	



Day 2	FIRE IN TUNNELS: 16 HOUR COURSE		
Time	Activity	Instructors	Remarks
9:00 9:45	Active safety: ventilation systems	TST	Ventilation objectives, main ventilation systems and their impact on fires.
9:50 10:35	Orientation, search and rescue	TST	Adaptation of work procedures with SCBA indoors to the specific conditions of tunnels. Advancing, tracking, search and rescue of victims.
30 min	COFFE BREAK		At the San Pedro facilities
11:05 14:00	<b>DRILL 1: Orientation and search</b>	TST	Long distance exercise to practice the basic guidelines for advancing, tracking, orientation and search for victims. Basic movements with twin-bottles, team coordination and consumption calculation.
1h 30 min	LUNCH		Nearest restaurant (10 min)
15:30 16:15	Heat stress	TST	Heat stress is studied as a special risk in intervention in large fires in tunnels: pathologies, causes, symptoms and treatment.
16:20 17:05	Safety in tunnels: Extinguishing/evacuation	TST	Extinguishing systems and equipment in tunnels and evacuation characteristics



Day 3:		FIRE IN TUNNELS: 16 HOUR COURSE	
Time	Activity	Instructors	Remarks
9:00 10:00	Case study: Mont Blanc tunnel fire, 1999	TST	Analysis of real accidents resulting in some practical teaching and operational conclusions.
30 min	COFFEE BREAK		At the San Pedro facilities
10:30 13:30	<b>DRILL 2: Penetration with long lay and tracking sectorisation</b>	TST	Penetration of downstream teams from entrance with long lay and penetration from side access with entry into gallery and lay from outside.
13:30 14:00	ASSESSMENT AND CLOSE	TST	End of course, with quality control via questionnaires and exchange of opinions. Presentation of diplomas