



Day 1:		FIRE IN TUNNELS: 30-Hour ADVANCED COURSE	
<i>Time</i>	<i>Activity</i>	<i>Instructors</i>	<i>Remarks</i>
9:00 9:45	INTRODUCTION	TST	Explanation about San Pedro facilities. Introduction to fires in tunnels. Course programme.
9:50 10:45	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.
10:50 11:45	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	TST	At the San Pedro facilities
12:15 13:10	Familiarisation with R.P.E.	TST	Workshop on how to handle RPE for them to be used safely during drills. (Possibility of closed circuit).
1h 30 min	LUNCH		Nearest restaurant (10min)
14:40 17:35	PRACTICE: Fire evolution	TST	The whole group will enter the tunnel, and after explaining some safety questions, a fire will be started in order to observe the smoke evolution.



Day 2:		FIRE IN TUNNELS: 30-Hour ADVANCED COURSE	
Time	Activity	Instructors	Remarks
9:00 9:55	Safety in tunnels: ventilation systems	TST	Ventilation objectives, the main ventilation systems and their impact on fires
10:00 10:55	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	COFFEE BREAK	TST	At the San Pedro facilities
11:25 14:00	DRILL 1: Orientation and search	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 (10min)
16:00 16:45	Safety in tunnels: Extinguishing/evacuation	TST	Extinguishing systems and equipment in tunnels and evacuation characteristics
16:50 17:35	Heat stress	TST	Heat stress is studied as a special risk in intervention in large fires in tunnels: pathologies, causes, symptoms and treatment.



Day 3:		FIRE IN TUNNELS: 30-Hour ADVANCED COURSE	
<i>Time</i>	<i>Activity</i>	<i>Instructors</i>	<i>Remarks</i>
9:00 9:55	Fire management and control	TST	M & C principles applied to long tunnels: road and rail/metro
10:00 10:55	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.
30 min	COFFEE BREAK	TST	At the San Pedro facilities
11:25 12:30	Intervention methodology II	TST	Continuation of previous class
1h 30 min	LUNCH		Nearest restaurant (10min)
16:00 17:35	DRILL 2: Penetration with long lay and tracking sectorisation	TST	Penetration of downstream teams from entrance with long lay and penetration from side access with entry into gallery and lay from outside.



Day 4:		FIRE IN TUNNELS: 30-Hour ADVANCED COURSE	
<i>Time</i>	<i>Activity</i>	<i>Instructors</i>	<i>Remarks</i>
9:00 9:55	Case study	TST	Analysis of real incidents, based on which practical training and operative conclusions have been obtained.
10:00 10:55	Concept of VMG pressurisation	TST	Application of the concept of positive ventilation by pressurisation applied to tunnels and centred on high volume mobile fans and familiarisation with the equipment.
30 min	COFFEE BREAK	TST	At the San Pedro facilities
11:25 12:30	Intervention pre-planning	TST	Preliminary planning of the intervention in tunnels, analysing two practical examples
1h 30 min	LUNCH		Nearest restaurant (10min)
16:00 17:35	DRILL 3: Simultaneous penetration in complex situations	TST	Simultaneous penetration of teams via several accesses, presenting a complex situation



Day 5:		FIRE IN TUNNELS: 30-Hour ADVANCED COURSE	
Time	Activity	Instructors	Remarks
9:00 9:55	Recap	TST	Review of the main concepts of the course and solution of doubts
10:00 10:30	Briefing of the MACRO DRILL	TST	Previous explanation to students of circumstances of the final drill.
30 min	COFFEE BREAK	TST	At the San Pedro facilities
11:00 13:30	MACRO DRILL	TST	Execution of a complex drill with high heat load.
1h 30 min	LUNCH		Nearest restaurant (10min)
15:00 16:30	Assessment and close	TST	End of course, with quality control via questionnaires and exchange of opinions. Presentation of diplomas