

# JT IUV 2018

3<sup>rd</sup> edition of the technical days

EMERGENCY INTERVENTIONS ON VEHICLES

## Schedule



MAY 16, 17 & 18 2018



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## DAY 1 : WEDNESDAY 16TH OF MAY

10h30	Inauguration of emergency response platform	Emergency response platform
11h00 à 14h00	<b>Reception / Removal of badges</b>	Reception hall
12h00 à 13h30	Meal (on reservation)	Restaurant
12h45	<b>Briefing Weber Rescue workshops</b>	Tribune
13h30 à 14h00	<b>Opening Technical Days</b>	Conference hall
14h00 à 14h30	<b>TABLE RONDE "EIV : initiatives of CTIF, DGSCGC, FNSPF, ENSOSP and EuroNcap"</b> T.Eriksson (CTIF president) / Col E.Faure (FNSPF president) / P Castaing (EuroNcap president) / J Witkowski (DGSCGC director) / CG Hervé Enard (ENSOSP director)	Conference hall
14h30 à 15h15	<b>TABLE RONDE "installation of cervical collars in the management of road traffic accidents: should it be systematic? ?"</b> Pr Per Kristian Hyldmo (consultant anesthgiologist - Norway) / Pr Olivier Mimoz (SAMU 86) / Médecin colonel Patrick Hertgen (SDIS59) / DGSCGC (en attente)	Conference hall
15h30	<b>Beginning of Weber Rescue workshops</b>	Extrication workshops
16h00 à 16h30	<b>TABLE RONDE</b> <b>Road Rescue operational distribution: generalized, graduated, specialized?</b> T Van Esbroeck (CTIF) / C. Rigollet (FNSPF) / A Clemente (Alicante) / T Melly (Lausanne)	Conference hall
16h30 à 17h00	<b>DEMONSTRATION Trauma challenge</b> Currently under finalization	EIV Amphi
18h30	<b>End of Weber Rescue workshops</b>	Extrication workshops
18h30 à 19h00	<b>WORKSHOP "Extrication: Chain techniques used in Nordic countries"</b> Henrik Paulsen (Danemark) / Pr Per Kristian Hyldmo (Norvège)	«Green» Amphi
19h00	End of the day	



# CONFERENCES / DEMONSTRATIONS / WORKSHOPS / TESTS

## DAY 2 : TUESDAY 17TH OF MAY

8h00 à 8h30	<b>WORKSHOP "Gallet F1 XF helmets &amp; electrical hazards in EIV"</b> Y. Morel (MSA)	Conference hall
8h30 à 9h00	<b>WORKSHOP "Tesla: Characteristics, tools to support intervention for firefighters, operational instructions"</b> Tesla	EIV Amphi
9h45 à 10h30	<b>WORKSHOP « Road rescue: rescue plan choice/ ICase of a victim with a leg section »</b> Pepe Ortiz –Sapeurs-pompiers Valencia (Espagne) / Alan Clemente - SP Alicante (Espagne)	EIV Amphi
11h00 à 12h00	<b>REAL FIRE TEST : Electric cars fire / Li-ion and LMP battery cases</b> Cne Bruno Poutrain (BSPP) /Claire Petit-Boulanger (Renault) / Jean-Luc Girault (Bolloré) / H. Bazin (LCPP)	Test area
12h00 à 13h30	<b>Meal at the training centre</b>	Restaurant
13h30	<b>Beginning of Weber Rescue workshops</b>	Extrication workshops
13h30 à 14h00	<b>TABLE RONDE "Alternative energy vehicles: focus on the tunnel / car park fires"</b> H. Bazin (LCPP) / Cne B. Poutrain (BSPP) / Cne Jean-Luc Barney (BSPP)	Conference hall
14h00 à 14h30	<b>WORKSHOP «E-rescue : innovative assistance system for emergency response in the event of a bus accident»</b> Sergio De Rico Herrero (E-rescue / Espagne)	«Green» Amphi
15h00 à 15h30	<b>DEMONSTRATION «fire of vehicles in confined spaces (covered car parks, tunnels...): can the robot help the fire brigades?»</b> Jean-Charles Mammana (TECDRON)	Test area
15h30 à 16h00	<b>DEMONSTRATION «Training for vehicle fire extinguishing techniques: the new generation car fire simulator»</b> Marc Mouthon (Mouthon formation)	Test area
16h30	<b>End of Weber Rescue workshops</b>	Extrication workshops
17h00 à 18h00	<b>TESTS « Equipment impacting the emergency services: active hood, pedestrian airbag, baby seat airbag, motorcycle vest airbag»</b> Autoliv / Dorel / Inemotion-	EIV Amphi
18h00 à 18h30	<b>DEMONSTRATION</b> <b>«The evolution of extrication in France: battle 1970 vs 2020»</b> SDIS86 WRC team/ SDIS86 «old firefighters team»	«Green» Amphi
18h30	End of the day	

## DAY 3 : FRIDAY 18TH OF MAY

8h00	<b>Beginning of Weber Rescue workshops</b>	Extrication workshops
8h00 à 8h30	<b>WORKSHOP « Educational tools and methods for extrication training: the SDIS 86 EIV training platform»</b> Lt-colonel Michel Gentilleau / Cdt Dimitri Pelletier (SDIS86)	Emergency response platform
8h30 à 9h00	<b>WORKSHOP « Intervention on LNG vehicles (road transport with LNG, LNG transport, LNG station and storage) / Italian firefighters experience»</b> Francesco Pilo / sapeurs-pompiers Venise (Italie)	Conference hall
10h00 à 10h30	<b>WORKSHOP</b> Currently under finalization	
11h00	<b>End of Weber Rescue workshops</b>	Extrication workshops
11h00 à 12h00	<b>REAL FIRE TEST " LNG truck fire"</b> Col. Delaunay / Cne Sébastien Cardou (SDIS 44) / Marc Mouthon (Mouthon formation)	Test area
12h00	<b>Meal at the training centre</b>	Restaurant
13h00	END OF TECNICAL DAYS	





# Details of interventions





**TABLE RONDE : «EIV : INITIATIVES OF CTIF, DGSCGC, FNSPF, ENSOSP AND EURONCAP »**



**OBJECTIVES :** present initiatives, advances and projects of each of these organizations in the field of «emergency intervention on vehicles».

All of these organizations have their own role to play in monitoring the technological developments necessary for the evolution of our practices, in modifying our protocols to take better account of the constraints associated with new technology vehicles, in disseminating these protocols to all those involved in the field and in implementing tools to help rescue services.

This step will enable us to take into account the work in progress, the actions already undertaken and also to highlight future progress in a constantly moving sector.

**INTERVENANTS**



**Mr Tore Eriksson,**  
International Association of Fire  
and Rescue Services Président  
(CTIF)



**Colonel Eric Faure,**  
French Firefighters National  
Association Président (FNSPF)



**Mr Pierre Castaing,**  
EuroNCap Président



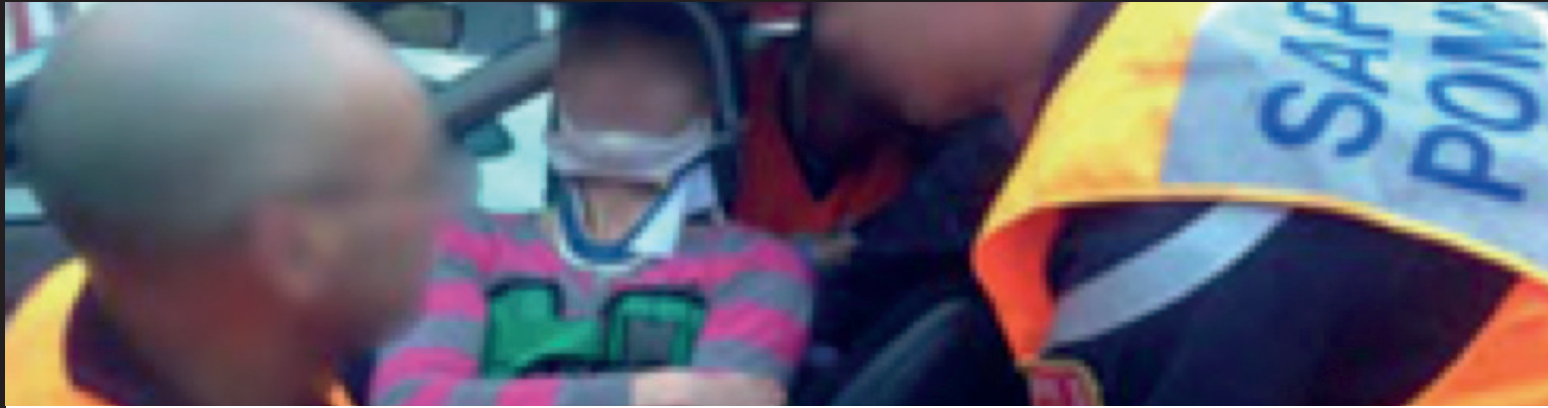
J Witkowski  
DGSCGC **Director**



CG Hervé Enard  
ENSOSP **Director**



**TABLE RONDE : « CERVICAL COLLAR PLACEMENT IN THE MANAGEMENT OF  
ROAD TRAFFIC ACCIDENTS : SHOULD IT BE SYSTEMATIC ? »**



**OBJECTIVES :** present the arguments resulting from a Norwegian study on the question of the systematic placement of cervical collars in the management of road traffic injured persons.

Professor Per Kristian Hyldmo, a Norwegian doctor, published (jointly with other medical colleagues), in early 2017, an article in the journal «Scandinavian journal of trauma resuscitation and emergency medicine» entitled «Norwegian guidelines for the pre-hospital management of adult trauma patients with potential spinal injury».

This article questioned, in particular, the systematic placement of cervical collars by emergency services during the treatment of road accident victims.

Professor Per Kristian Hyldmo will present the work that has been done on this subject

and develop the proposed conclusions.

In order to discuss this subject, the round table will be completed by Professor Olivier Mimoz, Head of the Emergency/SAMU Department at Poitiers hospital , by Colonel Patrick Hertgen, Head of the SDIS 59 medical service and by a representative of the DGSCGC (waiting for confirmation).

**INTERVENANTS**



**Per Kristian Hyldmo**, consultant anesthesiologist, PhD Head of Trauma, Sørlandet Hospital, Norway Associated professor, University of Stavanger/ Norvège).



**Pr Olivier Mimoz**, Head of the Emergency/SAMU Department at Poitiers hospital and Vice Director of the INSERM unit U1070 of Poitiers university



**Médecin colonel Patrick Hertgen**, Head of the SDIS 59 medical service, FNSPF vice-président



DGSCGC **Director** or his representative (waiting for confirmation)





**TABLE RONDE : « THE OPERATIONAL RESPONSE IN ROAD RESCUE:  
GENERALIZED, GRADUATED, SPECIALIZED? »**



**OBJECTIVES :** compare positions regarding the integration of the new technology vehicle constraints in the road rescue emergency response .

The debate will revolve around the recurring questions: «Should we specialise in road rescue? Is road rescue a specialist business? Should road rescue still be a basic training course for fire brigades? ».

Each of the participants will position themselves with regard to the distribution of road rescue resources to be used in our territories: identic, complementary or specialized resources? Is each territory equivalent in the response to be given?

A French point of view will be confronted with the positions of our Belgian, Spanish and Swiss colleagues.

**INTERVENANTS**



**Cdt Cédric Rigollet**, Chef du pôle « Prévention / Opération » du SDIS de la Marne, animateur national du GT « Mobilité, Sécurité, Secours Routiers » de la FNSPF



**Major Tom Van Esbroeck**, Fire brigade officer - Bruxelles (Belgique), Chairman of « Extrication and new technology » CTIF commission



**Alan Clemente**, firefighter Alicante (Espagne), Sergent Consorcio Bomberos Alicante, Juge APRAT (Association Professionnelle Nationale Espagnole de Secours Routier)



**Thierry Melly**, fire brigade officer in the Lausanne protection and rescue service, road rescue referent for the canton of Vaud (Suisse)



Schedule - 3<sup>rd</sup> technical days edition

# EMERGENCY INTERVENTIONS ON VEHICLES - #IUV2018

## WORKSHOP : « EXTRICATION : «CHAIN TECHNIQUES» USED IN THE NORDIC COUNTRIES»



**OBJECTIVES :** Implement a technique used by fire brigades in the Nordic countries (Norway, Sweden, Denmark) with vehicles and chains.

Henrik Paulsen, a Danish firefighter and instructor at the Danish Emergency Management Agency Services College, will conduct a rescue exercise using vehicles and chains. This technique, currently used in northern Europe, breaks the codes of our traditional techniques.

Henrik Paulsen will be assisted in his comments by Dr. Per Kristian Hyldmo, Anesthesiologist, Head of Trauma Department, Sørlandet Hospital.



**Henrik Paulsen**, firefighter (Danemark), instructor at Danish Emergency Management Agency Services College



**Per Kristian Hyldmo**, consultant anesthesiologist, PhD Head of Trauma, Sørlandet Hospital, Norway Associated professor, University of Stavanger

## ATELIER : GALLET F1 XF HELMETS & ELECTRICAL HAZARDS IN THE CONTEXT OF «EMERGENCY INTERVENTIONS ON VEHICLES».



**OBJECTIVES :** Provide the necessary information to the emergency services on the technical characteristics of Gallet F1 XF helmets in relation to the electrical risk met during emergency interventions on vehicles.

MSA, manufacturer of Gallet helmets, will present the characteristics of its helmets in terms of protection of rescuers against electrical risks that can be encountered during EIV.

This will include, among other things, the protection of rescuers when handling service-plug, which is included in the electrical isolation protocols for HV batteries in many

Emergency Response Guides.

Mention will also be made of the protection provided by the F2 X-TREM helmets against these electrical risks.



**Yohan Morel**, Head of the Civil Security Market, MSA





Schedule - 3<sup>rd</sup> technical days edition

# EMERGENCY INTERVENTIONS ON VEHICLES - #IUV2018

## WORKSHOP : "TESLA : CHARACTERISTICS, TOOLS TO ASSIST IN RESCUERS INTERVENTIONS, OPERATIONAL INSTRUCTIONS».



**OBJECTIVES :** Provide the necessary information to the emergency services on the technical characteristics of Tesla vehicles in the domain of tertiary safety.

Tesla, an electric vehicles car manufacturer, will present the characteristics of its models with regard to emergency interventions on vehicles, as well as the various instructions concerning road rescue and vehicle fires.

In particular, an update will be made on the application of the manufacturer's recommendations concerning electrical isolation of the traction circuit (action on «loop») by the emergency services.



**Arnaud Boitel**, Regional EHSS  
Leader, TESLA

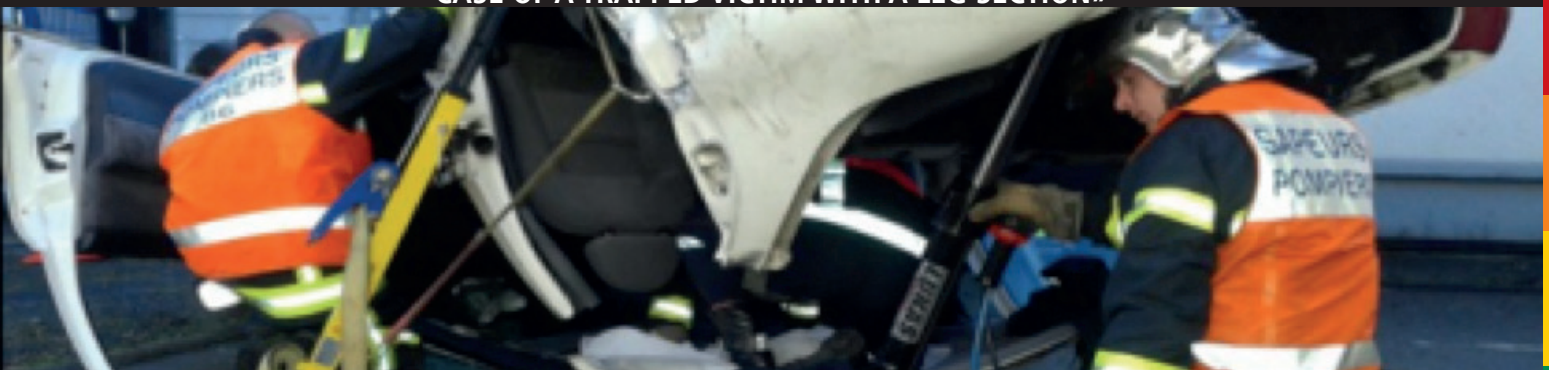


**Karim Zemani**, Service advisor,  
Aix en Provence, TESLA



**Luc Peyrin**, Product support  
engineer, TESLA

## WORKSHOP: « ROADRESCUE : RESCUE PLAN CHOICE / CASE OF A TRAPPED VICTIM WITH A LEG SECTION»



**OBJECTIVES :** Give criterias for extraction technique choice and focus on the case of a victim with a leg section.

Alan Clemente and Pepe Ortiz, two Spanish firefighters known for their involvement in road rescue, will discuss of the tactical method used in Spain to determine the «rescue plan» adapted to a given situation.  
What criteria should be considered to determine the most appropriate technique for managing a road accident?

How to respond to a situation involving a victim with a leg section?



**Alan Clemente**, Alicante firefighter (Espagne),  
Sergent Consorcio Bomberos Alicante, Juge APRAT  
(Association Professionnelle Nationale Espagnole  
de Secours Routier)



**Pepe Ortiz**, Valencia firefighter (Espagne),  
Caporal Consorcio Bomberos València, Juge  
international de sauvetage et des relations  
extérieures APRAT (Association Professionnelle  
Nationale Espagnole de Secours Routier)



# Schedule - 3<sup>rd</sup> technical days edition

## EMERGENCY INTERVENTIONS ON VEHICLES - #IUV2018

### TESTS: « ELECTRIC CAR FIRES : THE EXAMPLE OF LI-ION AND LMP BATTERIES »



**OBJECTIVES :** highlight the effects of an electric vehicle fire, the problem of extinguishment during a thermal runaway battery and apply the fire brigade intervention protocol on this type of incident.

Hervé Bazin (LCPP) and Capt. Bruno Poutrain (BSPP) will comment the fire tests on electric vehicles with Li-ion battery and LMP battery. They will have the technical support of representatives of two automobile manu-

rers, Claire Petit-Boulanger (Renault) and Jean-Luc Girault (Bolloré). Offensive tactic protocol will be used for extinction.



**Claire Petit-Boulanger** Road safety team leader- Tertiary Security Referent – Renault



**Cne Bruno Poutrain**, Bureau Planification Opérationnelle, Section Études Opérationnelles, Paris firefighters brigade



**Hervé Bazin**, Ingénieur en chef, Chef du pôle mesures physiques et sciences de l'incendie, Laboratoire Central de la Préfecture de Police de Paris



**Jean-Luc Girault**, Health and Safety Manager Quality and Environment System, Bolloré/BlueSolutions

### TABLE RONDE : « NEW-GENERATION VEHICLES: WHAT ABOUTN INDOOR PARKING FIRES ? »



**OBJECTIVES :** take into account the studies that have been conducted, feedback and operational measures applied in the case of new generation vehicle fires in indoor parking areas.

do the new-generation vehicles generate new or higher risks in indoor parking fires?  
Do the research studies and feedback allow us to conclude on specific operational strategies and tactics?  
What are the resources available to rescue services to anticipate these risks (operational

anticipation, training, etc.)?  
Paris Firefighters Brigade as well as LCPP will try to provide some answers.



**Cne Bruno Poutrain**, Bureau Planification Opérationnelle, Section Études Opérationnelles, Paris firefighters brigade



**Cne Jean-Luc Barney**, Bureau Prévention, Paris firefighters brigade



**Hervé Bazin**, Ingénieur en chef, Chef du pôle mesures physiques et sciences de l'incendie, Laboratoire Central de la Préfecture de Police de Paris





### DEMONSTRATION : "E-RESCUE : INNOVATIVE ASSISTANCE SYSTEM FOR EMERGENCY RESPONSE IN THE EVENT OF A BUS ACCIDENT"



**OBJECTIVES :** show the difficulties of rescue services during an intervention involving a bus and to show the possibilities offered by an innovative system of a Spanish company.

The E-Rescue company based in Madrid offers integrated rescue services for buses.

Each seat includes its own personal equipment for immobilising a potential victim (like aircraft with a lifejacket and an O2 mask for each passenger).

Once immobilized, the victim can be transported in his own seat by the emergency services.

A good example of intervention tools integrated into vehicles or how vehicle manufacturers can contribute to improving tertiary safety. A commented demonstration will be given on a bus equipped with this innovation.



**Sergio De Rico Herrero,**  
E-rescue System

### DEMONSTRATION : "VEHICLE FIRE IN CONFINED SPACES (INDOOR PARKING, TUNNELS...): WILL THE ROBOT HELP THE FIRE BRIGADE ?"



**OBJECTIVES :** show the difficulties met by the rescue services during a fire intervention, in confined spaces (indoor car parks, tunnels, warehouses) involving a large number of vehicles and to show the possibilities offered and the limits, when using robots in these operations

The French company Tecdron proposes a type of robot allowing the «distant» extinction in such a way as to allow the safety of operators in configurations where access is difficult and/or the calorific potentials are very important.

This is the case of vehicle fires in indoor car parks/warehouses/tunnels. A commented demonstration will be realized to highlight the possibilities of this robot in terms of maneuverability, displacement and extinguishing capacity.



**Mr Jean-Charles Mammana,** director,  
Tecdron



**DEMONSTRATION : « TRAINING IN VEHICLE FIRE EXTINGUISHING TECHNIQUES:  
THE LAST GENERATION VEHICLE FIRE SIMULATOR »**



**OBJECTIVES :** Use a last-generation simulator vehicle fires. This simulator has the particularity to use the appropriate gases for each type of on-board energy (LPG, GNC, H2)

The Mouthon Formation company, after having made, a few years ago, a first model of of vehicle fire simulator, proposes a new generation of these training materials, based on the use of gases involved in the selected vehicle model (vehicle with LPG, CNG, H2, electric vehicle).

The realism of this simulator must provide a better «lecture of the fire» by the students and a more realistic situation setting in relation to the implementation of intervention protocols on «emergency intervention on vehicles».



**Marc Mouthon,**  
Gas vehicle expert

**TEST : « EQUIPMENTS IMPACTING EMERGENCY SERVICES: ACTIVE HOOD,  
PEDESTRIAN AIRBAG, BABY SEAT AIRBAG, MOTORCYCLE VEST AIRBAG.»**



**OBJECTIVES :** Highlighting the impact of various passive safety equipment for rescue operations

In partnership with the world's number one airbag manufacturer (Autoliv), a baby seat manufacturer (Dorel) and a motorcycle airbag manufacturer (Inemotion) tests will be carried out to activate different types of airbags: active hood, pedestrian airbag, baby seat airbag, motorcycle airbag.  
The objective for these tests will be to verify (or invalidate) the possible impact on rescue

services.

A test of airbag activation by static electricity will also be carried out, with the objective of showing (or not) the possibility of airbag activation by static electricity.

**inemotion**  
INTELLIGENT PROTECTION TECHNOLOGY

**DOREL**

  
**Autoliv**





**DÉMONSTRATION : « THE ROAD RESCUE EVOLUTION IN FRANCE: BATTLE 1970 VS 2020 »**



**OBJECTIVES : Highlight the revolution in road rescue during the last half century**

Simultaneous manoeuvres will involve, on one hand, fire-fighters equipped with equipment, gear and PPE from the 1970s on a vehicle which was involved in an accident of the same years and, on the other hand, fire-fighters equipped with equipment, gear and PPE of today on a current accident vehicle.

These 2 simultaneous exercises will be the subject of comments highlighting the different evolutions observed.

A pedagogical video will be produced on the basis of these simultaneous manoeuvres.



**Equipe WRO du SDIS 86, France**  
vice-champion 2017



**Equipe 1970**, by firemen of the  
«epoch».

**WORKSHOP : “EMERGENCY INTERVENTION ON LNG (LNG HEAVY TRUCKS, LNG TRANSPORT, LNG STATION AND STORAGE) : THE ITALIAN FIREFIGHTERS EXPERIENCE ”**



**OBJECTIVES : highlight the special characteristics of interventions related to liquefied natural gas and show the necessity of developing operational methods and equipment, taking into account the development of this sector in France.**

Liquefied Natural Gas (LNG) is growing at an unprecedented level in road transport. The number of trucks using this energy in liquefied form as traction energy, continues to grow in proportions that cannot leave the emergency services without an adequate operational response.

At the same time as the use of this energy on our roads is increasing, it is the LNG stations and the LNG transport by road to provide these same LNG stations that are questioning the emergency services.

Italy, like other European countries, has been confronted with this situation for many years. Francesco Pilo, an Italian fire brigade officer and NRBC expert for Northern Italy, will talk about how these operational problems are being approached (LNG leak onto vehicles or stations, vehicle fires using or transporting LNG), on the other side of the Alps.



**Francesco Pilo**, Fier Brigade Officer,  
NRBC expert (Venise).



Schedule - 3<sup>rd</sup> technical days edition

# EMERGENCY INTERVENTIONS ON VEHICLES - #IUV2018

## « TRAINING TOOLS AND METHODS ON EIV TRAINING: THE SDIS 86 EIV TEACHING PLATFORM »



### OBJECTIVES : Present the new SDIS 86 training platform on «emergency intervention on vehicles»

SDIS 86, in the continuity of its involvement in the field of «emergency intervention on vehicles», has created a training platform on the same subject at the Vienna Fire Brigade Training Centre.

2000 m<sup>2</sup>, including an 800m<sup>2</sup> building, are used to teach protocols and techniques for road rescue and vehicle fires.

A guided tour of this platform will be organized, highlighting the objectives of each workshops.



**Lt-colonel Michel Gentilleau**, SDIS 86, member of the CTIF « extrication and new technology » commission



**Cdt Dimitri Pelletier**, SDIS 86, EIV referent

## DEMONSTRATION : « LNG TRUCK FIRE »



### OBJECTIVES :burn a heavy truck using LNG for traction energy with application of the extinguishing protocol

SDIS 44, which has been involved for many years in the field of vehicle gas fires, will burn a truck using LNG with the technical support of Marc Mouthon, an expert in gas vehicles.

The extinction protocol will be used.

This fire will make possible to visualize the «fire recognition» of an LNG vehicle fire.



**Colonel Serge Delaunay**, Chef d'état major, SDIS 44, member of the CTIF « extrication and new technology » commission



**Marc Mouthon**, Gas vehicle expert



**Capitaine Sébastien Cardou**, SDIS 44, EIV referent





# Extrication workshops

**WEBERRESCUE**  
SYSTEMS



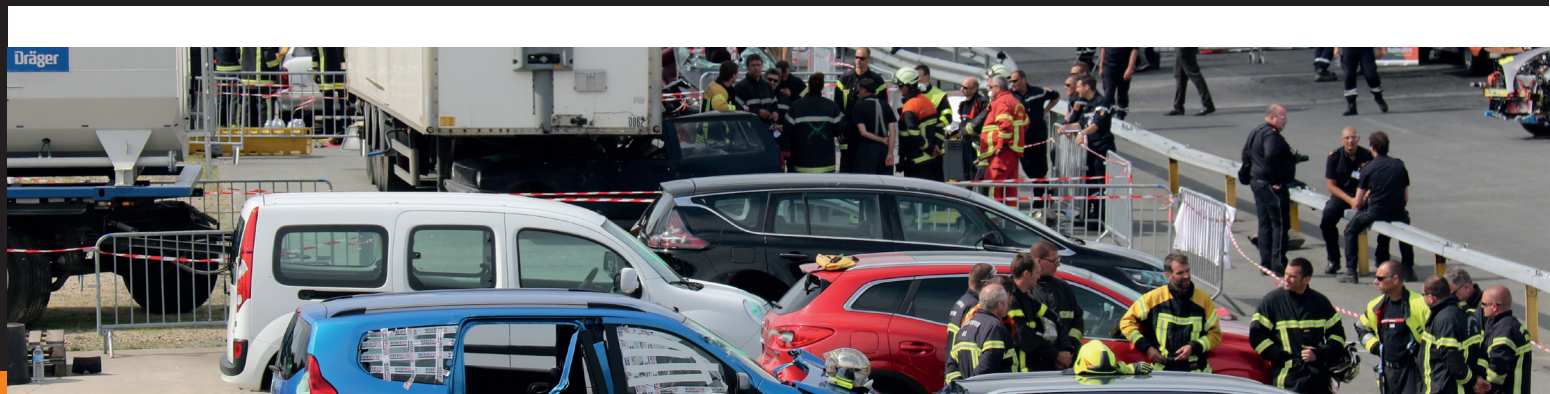


## WORKSHOP N°1 : « LIFTING WORKSHOP : VEHICLE UNDER A BUS PLACED ON THE SIDE. »



OBJECTIVES : Use different lifting methods and equipment

## WORKSHOP N°2 : « NEW TECHNOLOGY VEHICLES WORKSHOP »



OBJECTIVES : Use different rescue techniques on new technology vehicles

## WORKSHOP N°3 : « NEW TECHNOLOGY VEHICLES WORKSHOP »



OBJECTIVES : Use different rescue techniques on new technology vehicles





## WORKSHOP N°4 : « TIPS AND TRICKS FOR EXTRICATION TECNICS»



**OBJECTIVES :** present various tips and tricks, to facilitate the intervention of emergency services in traffic accidents

## WORKSHOP N°5 : « CARAMBOLAGE WORKSHOP»



**OBJECTIVES :** be integrated in a rescue sector in the context of a collision (25 vehicles involved) involving several rescue teams

## WORKSHOP N°6 : « CARAMBOLAGE WORKSHOP»



**OBJECTIVES :** be integrated in a rescue sector in the context of a collision (25 vehicles involved) involving several rescue teams



## WORKSHOP N°7 : « WORKSHOP FOR VEHICLES E UNDER HEAVY TRUCKS »



**OBJECTIVES :** Use different rescue techniques safely on a vehicle under a truck.

## WORKSHOP N°8 : « ROAD RESCUE WORKSHOP ON ELECTRIC VEHICLE »



**OBJECTIVES :** Use intervention techniques on electric vehicles, applying the vehicle safety protocol.

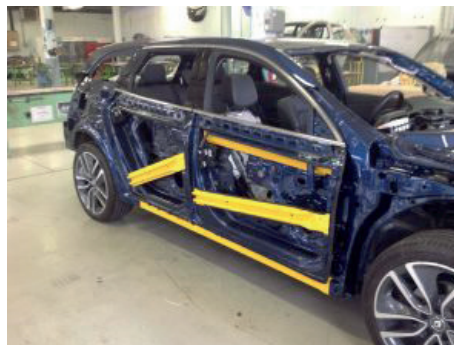


# EXPOSANTS



# EXPOSANTS

SEE THE LATEST INNOVATIONS OF THE FIREFIGHTERS SERVICES IN  
THE FIELD OF EMERGENCY RESPONSE FOR VEHICLES



Pedagogical vehicle of SDIS 19



Pedagogical vehicle of SDIS 79



Immersive online training applied to road rescue  
of SDIS 31

The smartphone: An educational tool for SDIS 61





# Notes



