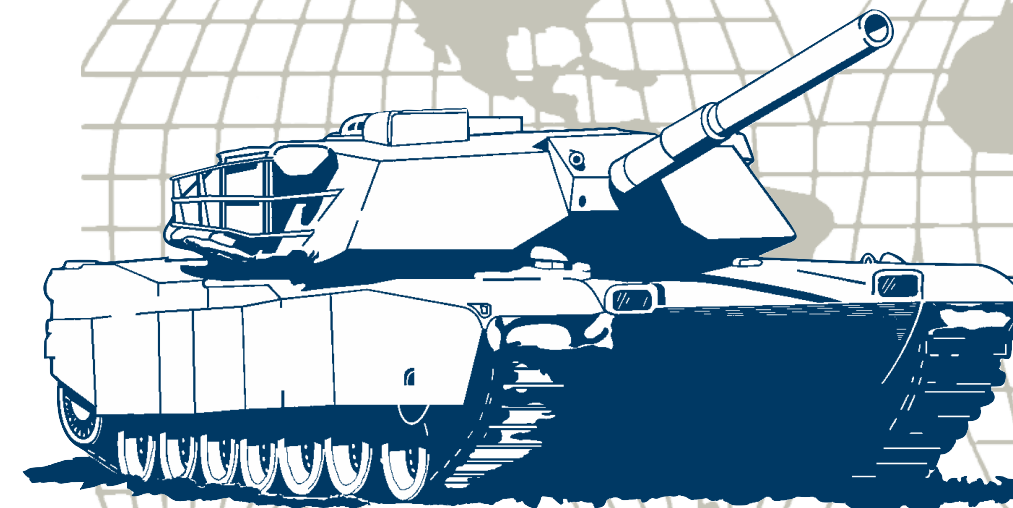


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**SAE** Presents ...  
**INTERNATIONAL**

# MILITARY AND EMERGENCY VEHICLES SAFETY

*International Military and Emergency Services Experts from countries such as Australia, Netherlands, United Kingdom, and the United States will share their expertise!*



**September 11-12, 2001**  
Tempe, Arizona  
Embassy Suites Hotel

**Register by Friday,  
August 31 for Special  
Early Bird Fee!**

## MILITARY AND EMERGENCY VEHICLES SAFETY TOPTEC REGISTRATION FORM

Register **by Friday, August 31, 2001** for the early registration fee of \$795; SAE Mbrs. \$695; U.S. Dollars. **After Friday, August 31, 2001**, TOPTEC registration fee is \$845; SAE Mbrs. \$745; U.S. Dollars. This fee will include both days' workshops, refreshment breaks, lunches, reception, and handout materials.

- Please register me to attend the Tour of Simula on Monday, September 10, 2001
- Confirming telephone reservation
- Please send SAE membership information.
- Please send information on future SAE TOPTEC Series

My Preferred Mailing Address is  Business  Home  
(Please complete both address sections.)

SAE MEMBERSHIP NUMBER (Number must be valid.)

SOCIAL SECURITY NUMBER (For use with CEU Records)

### BUSINESS ADDRESS

SURNAME \_\_\_\_\_ FIRST NAME \_\_\_\_\_  
JOB TITLE \_\_\_\_\_  
COMPANY DIVISION/DEPARTMENT \_\_\_\_\_  
COMPANY NAME \_\_\_\_\_  
STREET ADDRESS \_\_\_\_\_ MAIL STOP IF APPLICABLE \_\_\_\_\_  
CITY \_\_\_\_\_ STATE/PROVINCE \_\_\_\_\_ ZIP-4 OR POSTAL CODE \_\_\_\_\_  
COUNTRY (IF NOT USA) \_\_\_\_\_  
TELEPHONE NUMBER \_\_\_\_\_ FACSIMILE NUMBER \_\_\_\_\_  
E-MAIL ADDRESS \_\_\_\_\_  
APPROVING MANAGER \_\_\_\_\_ TITLE \_\_\_\_\_

### HOME ADDRESS

STREET ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ STATE/PROVINCE \_\_\_\_\_ ZIP-4 OR POSTAL CODE \_\_\_\_\_  
COUNTRY (IF NOT USA) \_\_\_\_\_  
TELEPHONE NUMBER \_\_\_\_\_ FACSIMILE NUMBER \_\_\_\_\_  
 Payment enclosed \$ \_\_\_\_\_  
 Bill my credit card (\$10 minimum)

CARD NUMBER

EXP. DATE



**Conditions of Sale:** Payment must accompany registration.  
No refunds or cancellations after **Friday, August 31, 2001.**

Signature \_\_\_\_\_

**Special Note:** If you have a disability that may impact your participation in this activity, please call us regarding your needs at least two weeks prior to the date of the event. Prior notification is necessary in order for us to address your needs.

The Society of Automotive Engineers reserves the right to change speakers or cancel programs due to circumstances beyond its control, and cannot be held responsible for costs incurred other than the registration fee. If you are planning to attend without registering in advance, please call Professional Development at (724) 772-7148 for the latest program information.

**Return To:** DEPT 0831/1117/0901  
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SAE  
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or CALL: (724) 772-7148 or FAX: (724) 776-4955

01-1314

**Sponsored by: SAE Continuing Professional Development Group**

# Military and Emergency Vehicles Safety TOPTEC®

## Objectives:

- Provide an international forum for military and emergency services personnel, industry, regulators, and researchers to network and share experiences
- Explore ways to improve the safety and crashworthiness of land based military and emergency vehicles
- Learn how operational conditions from on-road use to battle environments can impact crashworthiness
- Examine the crashworthiness of general service field vehicles, personnel carriers and armored vehicles under a variety of conditions

## You should attend if you are a(n):

- Military, police, fire or EMS personnel involved in vehicle specification, procurement, evaluation or design
- Specialist vehicle design engineer
- Driver trainer
- Safety specialist in crashworthiness
- Crash investigator
- Vehicle safety researcher
- Service vehicle manager (military, police, fire or EMS)
- Military or other specialist service vehicle manufacturer
- Safety systems manufacturer
- Occupational health and safety professionals involved in specialist vehicles
- University researcher, faculty, or student

## By attending this TOPTEC, you will:

- Learn of the latest international developments relating to military, police, fire and EMS vehicle safety
- Apply new approaches for driver training, accident investigations, prevention of incidents and occupant protection and safety involving service vehicles
- Learn of methods being developed for establishing and specifying performance requirements for vehicle procurement
- Learn of methods for setting performance evaluation and testing criteria for vehicle acceptance
- Develop international networks in the field
- Receive an educational reference book of the conference proceedings based on the speakers' presentations

## Organizers:

**George Rechnitzer**  
Senior Research Fellow  
Monash University  
Accident Research Centre

**Raphael Grzebieta**  
Professor  
Monash University  
Department of Civil  
Engineering

**Shane Richardson**  
Senior Project Engineer  
Land Engineering Agency  
Manoeuvre Systems

**Nadine Levick, MD MPH**  
Assistant Professor  
Columbia University

## Five Easy Ways to Register:



Mail the  
Registration Form



Phone:  
(724) 772-7148



Fax:  
(724) 776-4955



E-mail:  
profdev@sae.org



On-Line:  
www.sae.org/calendar/topreg.htm

## Registration & Fees

Register before Friday, August 31, 2001 for the early registration fee of \$795; SAE Members \$695. After Friday, August 31, 2001, TOPTEC registration fee is \$845; SAE members \$745. The fee includes refreshment breaks, lunch on Tuesday and Wednesday, reception, and handout materials.

To register use the attached Registration Form or call the SAE Professional Development Division at (724) 772-7148. Telephone reservations must be guaranteed to a credit card. Registration is limited. Those desiring to enroll after Friday, August 31, 2001 should first verify space is available by calling the above telephone number.

Due to the program format and the nature of the information presented, handout materials will only be available to registered attendees. This enables all information discussed to be taken in the context in which it is presented. Requests for handout materials by non-registrants will not be considered.

## Hotel Accommodations & Conference Site

Embassy Suites Hotel  
4400 South Rural Road  
Tempe, Arizona 85282  
Phone (480) 897-7444

SAE has reserved a block of rooms for attendees at the special rate of **\$119 (plus tax)** per night, single or double occupancy.

Be sure to mention the **SAE TOPTEC** if you make reservations by phone. The block of rooms reserved will only be held until **Tuesday, August 21, 2001**. Please make your reservation prior to this date to assure availability.

## SAE's TOPTEC Series

This TOPTEC is one of a series of technical symposia designed to provide a forum to discuss key topics in industry and government today. When attending one of these focused TOPTECs, expect a smaller audience. This enables more interaction with the invited speakers. Registration is deliberately limited.

If you would like to participate as a sponsor or an organizer for a future TOPTEC, contact Michele Matchett, TOPTEC Manager, for more information at (724) 772-8524 or via e-mail at [matchett@sae.org](mailto:matchett@sae.org).

## Tour of Simula, Inc. – Phoenix, AZ

### Monday, September 10, 2001

1:00 pm – 1:30 pm Tour Registration and Check In at Embassy Suites  
1:30 pm Bus Departs Embassy Suites Hotel  
2:00 pm Bus Arrives at Simula Technologies Inc.  
2:00 pm – 4:30 pm Tour of Simula  
4:30 pm Bus Departs for Embassy Suites

A special tour has been arranged of Simula, Inc. on **Monday afternoon, September 10, 2001**. Simula designs and manufactures occupancy safety systems and devices engineered to safeguard human life in a wide range of air, ground and sea transportation vehicles. Products and technologies include inflatable restraints, energy absorbing seating systems, advanced polymer materials, transparent and opaque armor products, personnel protective equipment and parachutes and crash sensors. Tour participants will visit Simula's test facility and receive a comprehensive explanation of the testing process including the logistics involved, data collection and interpretation of data results. The tour will include the following facility areas: indoor and outdoor drop testing; high-speed sled testing; and ballistics testing.

Transportation to the tour will be provided. **Tour registration will be on a first-come, first-served basis and will be limited to the first 40 people to register.** Please indicate your intention to attend the tour on the TOPTEC Registration Form or to the SAE Registrar when you phone in your TOPTEC registration.

## TOPTEC AGENDA

### DAY 1 – Tuesday, September 11, 2001

7:00 am Registration

8:00 am Welcome and Introduction

### SESSION: MILITARY VEHICLE SAFETY DEVELOPMENTS

8:15 am **Experience Developing and Applying Performance Requirements for Vehicle Crash Safety Systems** – Robert F. Gansman, Project Engineer, Simula, Inc., Simula Technologies, Inc.

8:45 am **Smart Truck – A Technology Tool Box for Personnel Safety** – David Sloss, Research and Development Engineer, U.S. Army Center TACOM, National Automotive Center

9:15 am **Road Safety in the UK Armed Forces** – Lt Col Michael Rust, SO1 Support Operations 4a, Defence Logistics Organisation, DGES (LAND)

9:45 am **Enhancing Heavy Truck Crew Cab Safety** – Marvin K. Richards, Senior Staff Engineer, Simula Safety Systems, Inc., Applied Technology Division and David A. Shellabarger, Project Engineer, Oshkosh Truck, Defense Engineering

10:15 am Refreshment Break

10:30 am **Using Computer Simulation for Occupant Safety in Special Purpose Vehicles** – Bill Rockwell, Senior Marketing and Sales, TNO Madymo North America

11:00 am **Thin Walled Members, Tubing, Spot Welding and Void Filling: A Technical Overview for Crashworthiness Design** – Raphael Grzebieta, Professor, Monash University, Department of Civil Engineering

11:30 am **Eye Injuries from Night Vision Goggle Impact Due to Airbag Loading** – Stefan Duma, Assistant Professor, Virginia Tech, Mechanical Engineering

12:00 pm Lunch

1:15 pm **Testing for Impact Injury Risk for Drivers Wearing NVGs** – George Rechnitzer, Senior Research Fellow, Monash University, Accident Research Centre

1:45 pm **Crashworthiness Developments in the Australian Army** – Shane Richardson, Senior Project Engineer, Land Engineering Agency, Manoeuvre Systems

2:15 pm **Vehicle Mine Protection in the Netherlands** – Ton A. Verhoeven, Ing. and Piet-Jan Leerdam, Ir., TNO Prins Maurits Laboratory, Weapons and Weapon Platforms, Group Platform Technology

2:45 pm Refreshment Break

### SESSION: POLICE VEHICLES SAFETY

3:00 pm **Advancing Safety of Police Vehicles** – Commander Gary Jamieson, Victoria Police Force

3:30 pm **Police Vehicles** – TBD

4:00 pm **Emergency Vehicle Crashes: The Officer as the Victim** – Jeffrey P. Kolts, Patrolman, Denver Police Department

### SESSION: EMERGENCY VEHICLE SAFETY RESEARCH

4:30 pm **An Overview of Current Status and History** – Nadine Levick, MD MPH, Assistant Professor, Columbia University

### PANEL SESSION: INTERNATIONAL EMERGENCY VEHICLE DESIGN

5:00 pm –

6:00 pm **The European Perspective** – John Wilby, Director, Lifenet EMS International Ltd.

**The Australian Perspective and Trauma Systems Operations and Management** – Harry Rangihutaua Dansey, Auckland and Starship Hospitals Trauma Services

6:00 pm – 7:00 pm Reception

### DAY 2 – Wednesday, September 12, 2001

8:00 am Announcements

### SESSION: THE REAL WORLD – BALANCE OF RISK IN EMERGENCY VEHICLE TRANSPORT

8:20 am **Designing for Safety – Driving for Life** – Deborah C. Lockhart, RN, Former NEMSMS Board Member 1996-2001

8:40 am **Emergency Medical Services Vehicles: Collisions and Fatalities in the U.S.** – Brian Maguire, Associate Director, University of Maryland, Baltimore County, Department of Emergency Health Services

### SESSION: INTERNATIONAL CONSIDERATIONS REGARDING EMS STANDARDS

9:00 am **Comparisons of Safety Standards and Their Development** – Joe Bourgraf, President, Ferno Washington International

9:30 am **OCCUPANT PROTECTION ISSUES IN EMERGENCY VEHICLES**  
**Crashworthiness of Emergency Vehicles and Special Safety Issues Pertaining to the EMS Environment** – Nadine Levick, MD MPH, Assistant Professor, Columbia University

10:00 am **Child Passengers in Emergency Vehicles** – Bob Waddell II, Director of EMS Systems, Emergency Medical Services for Children National Resource Center

10:20 am Refreshment Break

10:40 am **Technical Challenges in Conducting Ambulance Vehicle Safety Testing** – Alan Blatt, Vice President, Research and Transportation, Veridian

### SESSION: ALLIED EMS SUPPORT ISSUES

11:00 am **Crash Investigation for Emergency Vehicles** – Fran Bents, Vice President, Dynamic Science Inc.

11:20 am **Fire Vehicle Safety Enhancement** – TBD, VFIS

11:40 am **Evaluation of Emergency Service Vehicle Occupant Safety** – Kimberly Cortez, Safety and Occupational Health Specialist and Paul H. Moore, Safety Engineer, NIOSH, Division of Safety Research  
Lunch

### SESSION: TRAINING SIMULATION AND MODELING

1:20 pm **Emergency Vehicle Operator Course: The People Perspective of Enhancing Vehicle Safety** – Garry Criddle, Retired from NHTSA EMS Division

1:40 pm **Driver Training Simulators** – TBD

2:00 pm **Innovation in EMS Vehicle Occupant Protection and Safety** – Buzz Sanderson, Senior Account Manager, ESI Group

### SESSION: SYSTEMS INFRASTRUCTURE AND EMERGENCY VEHICLE TRANSPORT SAFETY – THE OVERSEEING BODY

2:20 pm **Legal Perspectives, Insurance Responsibility** – W.H. Bill Leonard, Executive Vice President, Medical Transport Insurance Professionals

2:40 pm **Ambulance Design/Purchase Guidelines** – TBD

3:00 pm Refreshment Break

3:20 pm **Understanding the EMS Transport Safety Industry Status, Needs and Goals** – David R. Linger, Director, Global Product Development, Ferno-Washington, Inc.

### PANEL: FUTURE DIRECTIONS AND WHO'S RESPONSIBILITY IS IT?

3:40 pm –

4:30 pm Nadine Levick, MD MPH, Assistant Professor, Columbia University  
Day Two Speakers

4:30 pm TOPTEC Concludes