



# 3rd Civilian Armoured Vehicle Forum

## 22-24 October 2024

### Palexpo, Geneva, Switzerland

AidEx has teamed up again with Armoured Consulting to host CAV Forum 2024. This event is unique being the only global programme that focuses exclusively on the major issues influencing and affecting civilian armoured vehicle fleets for the aid and development community. The programme begins with a live firing demonstration on the day before AidEx, followed by a programme of discussions and learning at the AidEx Exhibition in Geneva.

**Hosted By:**



THE GLOBAL  
HUMANITARIAN AID EVENT  
23-24 OCTOBER 2024, PALEXPO, GENEVA



## Speakers Include:



**Nir Kahn**  
Head Designer  
Namiir Design



**Rob Getreu**  
Principal Consultant  
Armoured Consulting



**Kristin Pavone**  
Procurement Lead  
US Dept of State/DEAV



**Stephen Allen**  
Operations and  
Logistics Lead  
US Dept of State/DEAV



**Stephane Ostertag**  
International Road Safety  
Trainer



**Jan Bohlen**  
Project Leader  
Defence, Blast and  
Ballistic Simulation  
EDAG Engineering  
GmbH



**Chris Game**  
Chief Engineer  
UTAC - Millbrook  
Special Vehicles



**Meir Magal**  
Founder and MD  
Magal Engineering -  
Automotive Laboratory  
- Representative of  
DEKRA



**Ian Marriott**  
Managing Director  
Cre8 Associates  
Limited



**Toyota Gibraltar**  
Stockholdings



# Agenda Overview

## **Tuesday 22 October - Live fire demonstration in a secure location, 15 minutes' drive from central Geneva**

Pre-demonstration Networking Lunch, 12:30-13:45, bringing all participants together at a local restaurant, providing an opportunity to engage with fellow delegates, in preparation for an afternoon's shooting. The Live Fire element will be held at a secure location 15 minutes from central Geneva and close to the restaurant, the day before AidEx on October 22.

The Live Firing Demonstration will be held from 14:00-16:00 and provide a simulation of a ballistic attack on a vehicle by the Swiss Police. Manufacturers of glass and steel are also to provide samples of the bullet resistant glass and steel that is typically used in the construction of civilian armoured vehicles. The Swiss Police will shoot at these coupons using various different weapon calibres and from specified distances, to show their destructive capability.

**Live Fire Networking Lunch  
Sponsor:**



# Agenda Overview

## Wednesday 23 October - Conference at AidEx Palexpo, Geneva

09:30 – 10:00 Welcome Coffee, Introduction and Programme Overview

10:15 – 11:00 Armour Protection Vehicle Design - Essential Elements, Engineering Challenges and Future Opportunities.

11:00 – 11:15 Coffee Break

11:15 – 12:00 A Holistic Approach to Whole of Life Fleet Management

12:00 – 12:15 Coffee Break

12:15 – 13:00 Challenges in Managing the World's Largest Diplomatic Fleet of Civilian Armoured Vehicles

13:00 – 14:00 Lunch Break

14:00 – 14:45 Driver Training – Importance, Essentials and Challenges

14:45 – 15:00 Coffee Break

15:00 – 15:45 Toyota Base Platform and Civilian Armoured Vehicles

15:45 – 17:00 Visit Aidex Exhibition



# Agenda Overview

## Thursday 24 October - Conference at AidEx Palexpo, Geneva

09:30 – 10:00 Welcome Coffee

10:00 – 10:45 Comparison of Crash and Blast Loadings on Civilian Armoured Vehicles

10:45 – 11:00 Coffee Break

11:00 – 11:45 PAS 301 – Vehicle Mobility Standard and Testing

11:45 – 12:00 Coffee Break

12:00 – 12:45 Vehicle Mobility Testing and Certification

12:45 – 13:45 Lunch Break

13:45 – 14:30 Communications Systems and Civilian Armoured Vehicles

14:30 – 14:45 Coffee Break

14:45 – 15:30 Open Forum Discussion

15:30 – 16:00 Closing Remarks



*View detailed session breakdown on the following pages*



# Detailed Agenda - 23rd October

## **10:15 - 11:00 - Armour Protection Vehicle Design - Essential Elements, Engineering Challenges and Future Opportunities**

There are unique challenges when it comes to designing blast and ballistic protection for civilian vehicles. On one hand the vehicle needs to keep to its original civilian design so as to maintain its discrete look, occupant comfort and mobility characteristics. At the same time, the vehicles need to be suitably fitted with opaque and transparent armour so as to deliver the required level of protection.

Nir Kahn, Head Designer with Namiir, formerly Director of Design with Plasan, comes with more than 20 years design experience with armoured vehicles. In this session, he will review the key elements for effective vehicle armouring design, discuss some of the primary challenges in armouring of vehicles and finally, give some insight into the opportunities and issues for future armouring designs.

Speaker:

***Nir Kahn, Head Designer, Namiir Design***



# Detailed Agenda - 23rd October

## 11:15 - 12:00 - A Holistic Approach to Whole of Life Fleet Management

It is critical for agencies and fleet managers to understand that their Civilian Armoured Vehicle is a high cost asset that has a life span of many years...in many cases 10+ years. To keep the fleet operationally available and maintained in a fit for purpose and cost effective manner, a holistic and whole of life approach is needed.

This forum aims to provide a roadmap of the life cycle of an armoured vehicle from design through disposal. It will detail how each stage of the vehicle's life has a direct impact on the fleet management issues required to maintain the vehicles in a most cost-effective manner. Design reviews, configuration management, conformity of production, supply chain, data collection and analysis and uparmourer/user relationships will all be discussed.

Rob Getreu, Principal Consultant with Armoured Consulting will share many of his experiences and insights gained from more than 20 years in the industry and managing significant global fleets.

Speaker:

***Rob Getreu, Principal Consultant, Armoured Consulting***



# Detailed Agenda - 23rd October

## **12:15 - 13:00 - Challenges in Managing the World's Largest Diplomatic Fleet of Civilian Armoured Vehicles**

Procuring civilian armoured vehicles is one thing... keeping them operational and fit for purpose in a complex and dynamic world is something far more challenging. Such include the overall management of the procurement process, global technical support, the personnel required and the disposal process to say the least.

In this Forum, The Department of State, Defensive Equipment Armoured Vehicle (DEAV) Program will provide insight on the lifecycle and sustainment functions related to armoured vehicles for the United States Federal Government. DEAV presenters Kristin Pavone and Stephen Allen will cover an array of topics including procurement, guidance to the field, mechanical sustainment procedures, auditing functions, technician travel, and an overview of the vehicle disposal process.

Speaker:

***Kristin Pavone, Procurement Lead, US Dept of State/DEAV  
and***

***Stephen Allen, Operations and Logistics Lead, US Dept of  
State/DEAV***



# Detailed Agenda - 23rd October

## **14:00 - 14:45 - Driver Training – Importance, Essentials and Challenges**

The expertise of drivers of civilian armoured vehicle cannot be under-estimated. Driver need to be skilled security professionals and captains of their ships. The critical skills involved come through very specific intensive training not just once but on a regular basis. Importantly also, the trainers need to be suitably experienced and skilled specifically for the unique characteristics inherent in a civilian armoured vehicle

In this Forum, Stephane Ostertag from Business Risk Consulting will detail the importance of a structured and well considered driver training program, the essential elements within each of the modules of a course and also the challenges conducting the courses, particularly in more remote and hostile areas.

Speaker:

***Stephane Ostertag, International Road Safety Trainer / Subject-Matter Expert / Road Safety Prevention.***





# Detailed Agenda - 23rd October

## **15:00 – 15:45 - Toyota Base Platform and Civilian Armoured Vehicles**

The foundation of any civilian armoured vehicle is the base vehicle platform. Historically, the Toyota 4X4 platform has been the base vehicle of choice for the larger fleet operated by diplomatic missions, international agencies and NGOs. It is an important issue for all procurement and fleet managers that the base vehicle used for armoureding is best suited to the operational uses and mission scenarios.

During 2024, we will see the launch of the new TLS 250 series which will complement the recently released new TLC 70 and 300 series. Each of these platforms are well suited for a civilian armoured vehicle. The question is which one is best suited to the user's needs.

In this Forum, Toyota Gibraltar will be able to share all the available information as to these three platforms and enable users, fleet managers and procurement agencies to better compare and contrast them and so be better placed to choose the right vehicle for the right job

Speaker:

***Toyota Gibraltar Stockholdings***



# Detailed Agenda - 24th October

## **10:00 – 10:45 - Comparison of Crash and Blast Loadings on Civilian Armoured Vehicles**

Vehicles are well designed to secure and protect occupants in the event of a collision. However, the forces and load ratings placed on the vehicle are quite different in the event of blast incident. Any physical or blast impact on a vehicle will directly, and sometimes even catastrophically, affect the occupants.

Jan Bohlen, Project Leader, Defence – a blast and ballistic simulation expert from EDAG Engineering, will review these differences, reference different crash and blast scenarios, look at their load ratings, the current CAV testing standards and test specifications. Importantly, he will then bring all this together as it relates to failure of the vehicle structure and its correlation to human body injuries.

Speaker:

***Jan Bohlen, Project Leader Defence, Blast and Ballistic Simulation, EDAG Engineering GmbH***



# Detailed Agenda - 24th October

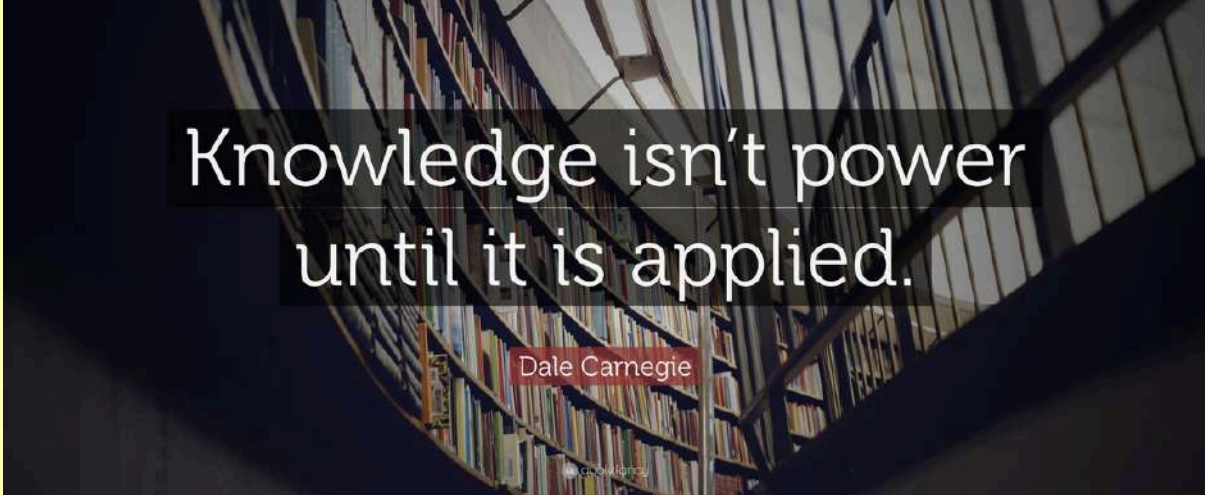
## 11:00 – 11:45 - PAS 301 – Vehicle Mobility Standard and Testing

Vehicle mobility is a critical factor in the design, development and safe operation of a civilian armoured vehicle. To verify the vehicle's mobility performance, testing against an international standard is critical. The PAS 301 standard is specifically designed for vehicle mobility testing of a civilian armoured vehicle.

Chris Game, Chief Engineer with UTAC – Millbrook Special Vehicles has considerable expertise in this field and will share his extensive knowledge in this Forum. Importantly, he will provide guidance and explanation as to the scope of the PAS 301 testing standard, his experience in conducting mobility testing and the various benefits and constraints when using the standard.

Speaker:

***Chris Game, Chief Engineer, UTAC – Millbrook Special Vehicles***



Knowledge isn't power  
until it is applied.

Dale Carnegie



# Detailed Agenda - 24th October

## 12:00 – 12:45 - Vehicle Mobility Testing and Certification

Vehicle mobility is critical for the safe and effective use of a civilian armoured vehicle. To verify that a vehicle's mobility and manoeuvring capability are up to the task, rigorous structures testing is critical. In this session, you will be briefed on the considerations of automotive modifications typically installed in a civilian armoured vehicle; the automotive implications with different operational environments; roadworthy verification for armoured vehicles - the homologation procedure; the essential components and when a re-testing is required; and the process of certification.

Speaker:

***Meir Magal - Founder and Managing Director, Magal Engineering - Automotive Laboratory - Representative of DEKRA***



# **Detailed Agenda - 24th October**

## **13:45 – 14:30 - Communications Systems and Civilian Armoured Vehicles**

Communication systems are required on all Civilian Armoured Vehicles. The issues relating to this important topic include the understanding of the different systems commonly used in the vehicles (e.g. HF, VHF, Sat Phone and Mobile Phone), the challenges relating to the installation of the systems into the vehicle and also how the other vehicle systems can interfere with their functionality. In this session, Ian Marriott will review these and other issues and provide important tips for fleets so as to maximize the efficacy of their vehicle communications systems.

Speaker:

***Ian Marriott, Managing Director, Cre8 Associates Limited***

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## **14:45 – 15:30 - Open Forum Discussion**

As with previous years, we will be opening up the floor to questions, issues and discussions of importance to attendees.

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## **15:30 – 16:00 - Closing Remarks**

# Ticket information

The Armoured Vehicle Programme is for technical specialists, procurement officers, fleet managers and end users. AidEx has the right to cancel registrations we deem not to meet this criteria. If you work for a manufacturer of vehicles or component supplier you should enquire about participation by emailing: [nicholas.rutherford@aid-expo.com](mailto:nicholas.rutherford@aid-expo.com)

Register your place:

<https://ti.to/aidex/aidex-civilian-armoured-vehicle-forum-2024>

