

## Press release

marketing communication

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### TenCate unveils industry's first available most advanced active underbody blast mitigation system during AUSA

TenCate Advanced Armor USA has unveiled at the AUSA Conference the industry's first available active underbody blast mitigation system, called TenCate ABDS™ active blast countermeasure system, to reduce casualties and injuries to troops riding in vehicles that are hit by IEDs.

Third party tests confirm that the TenCate ABDS™ active blast countermeasure system can dramatically mitigate the deadly impulse energy effects of an IED blast. Crew survivability is improved because the system minimizes the brutal launch into the air, the violent flight, and the destructive slam back down to earth associated with a vehicle experiencing an IED or mine blast event.

#### Raised IED protection

TenCate is working with several Department of Defense (DoD) agencies and US military vehicle makers to evaluate the system for use on a wide range of vehicle platforms, including a multi-year Cooperative Research and Development Agreement (CRADA) with the U.S. Army Research, Development, and Engineering Command (RDECOM). "Our talented engineering team has raised the bar on IED protection", said Mark Edwards, President of TenCate Advanced Armor USA. "The TenCate ABDS™ active blast countermeasure system is the world's first practical active underbody blast mitigation solution, and it's ready to save lives."

The system digitally senses how an IED will effect a ground vehicle and – in the fractions of a second in which an IED explodes – detects, analyzes, and directs a powerful active blast countermeasure to protect the vehicle and the troops on board. The system effectively mitigates the acceleration force that launches the vehicle into the air, the vehicle's flight, which is a major contributor to injuries, and also the vehicle's destructive crash down to the ground.

#### Retrofitted solution

The TenCate ABDS™ active blast countermeasure system is an off-the-shelf, cost-effective solution. This survivability system is lightweight, requires nominal power, and needs little space. TenCate ABDS™ active blast countermeasure system can be integrated and retrofitted onto vehicles, such as the Textron ASV (Armored Security

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Vehicle), Oshkosh M-ATV (MRAP – All Terrain Vehicle), AM General MECV-HMMWV (up-armored Hummer), GDLS Stryker, GDLS-C LAV (Light Armored Vehicle), Navistar MAXXPRO Dash, and BAE's FMTV (Family of Medium Tactical Vehicles) and Bradley products.

#### **Anthropomorphic tests**

TenCate collaborated with the DoD and US military vehicle manufacturers and performed multiple full-scale, live-fire testing (2011-2013) at the Southwest Research Institute in San Antonio, Texas, using state-of-the-art Hybrid III Anthropomorphic Test Devices (ATDs), similar to automotive crash test dummies, to capture critical human survivability metrics.

With ATDs positioned fore and aft in 18-20,000 lb 4x4 vehicles, 35 key injury parameters were measured, including head, chest, pelvis, neck, spine, femur, upper tibia, lower tibia, foot, and ankle. With the TenCate ABDS™ active blast countermeasure system turned off, tests recorded multiple injuries which collectively proved lethal to all occupants. With the TenCate ABDS™ active blast countermeasure system turned on, injuries were reduced significantly – in many cases by as much as 40-70% – and none were lethal.

The debut of the TenCate ABDS™ active blast countermeasure system ushers in an era of improved safety and survivability for all military and commercial ground vehicles and the crews and soldiers who work in harm's way each day. Mark Edwards concludes: "TenCate Advanced Armor looks forward to continuing its collaborations with US and allied Department of Defense agencies and military vehicle makers to evaluate the capabilities and survivability advantage that the system can provide on their platforms".

#### **TenCate Advanced Armor USA**

**Newark (Ohio), United States of America, Wednesday 23 October 2013**

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#### **For further information:**

No pictures available.

#### **TenCate Advanced Armor USA**

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**TenCate Advanced Armor** is a leading global supplier of a wide range of armor composite materials for ballistic protection. TenCate Advanced Armor develops and produces a portfolio of composite and ceramic materials and designs active armor solutions for the protection of police, army, air force, navy and civilian service personnel, vehicles and vessels. TenCate Advanced Armor has facilities in North America, Europe and Asia.

**Royal Ten Cate** (TenCate) is a multinational company that combines textile technology with chemical processes and material technology in the development and production of functional materials with distinctive characteristics. TenCate products are sold throughout the world.

Systems and materials from TenCate come under four areas of application: safety and protection; space and aerospace; infrastructure and the environment; sport and recreation. TenCate occupies leading positions in protective fabrics, composites for space and aerospace, antiballistics, geosynthetics and synthetic turf. TenCate is listed on NYSE Euronext (AMX).