



## New Body Armor from MSA Among the First to Meet New NIJ Standard / Establishes Several Performance Benchmarks

Jun 03,2009

- Patent-Pending Design Delivers Greater Protection for Law Enforcement Officers
- Paraclete(R) ComforTech Reinforcements Combine Flexibility with Performance

PITTSBURGH, June 3 /PRNewswire-FirstCall/ -- MSA (NYSE: MSA), the world's leading provider of safety equipment, today announced it is among the first manufacturers of ballistic body armor to have a product certified as meeting rigorous new performance standards adopted by the National Institute of Justice (NIJ). The first MSA product certified to the new standard is the company's TRP3A Templar(TM) Ballistic Package, which provides law enforcement personnel with a higher level of protection against modern-day ballistic threats including .357 SIG and 44 Magnum rounds.

(Photo: <http://www.newscom.com/cgi-bin/prnh/20090603/NE27350>)

The new NIJ standard, released in July 2008, represents the most significant change in ballistic protection performance over the past eight years. Among the many changes mandated by the NIJ are new testing protocols to simulate the effects of aging and extended wear on ballistic materials. The NIJ initiated this effort following two separate incidents in which one law enforcement officer was killed and another injured from gunfire while wearing body armor containing Zylon(R) material. The failure of the Zylon material, which has since been removed from NIJ certification, was attributed to a gradual degradation of the ballistic material which occurred over time.

The NIJ divides body armor packages into five classes according to the threat levels law enforcement personnel may encounter. Ballistic packages designated as levels IIA, II and IIIA are all soft, concealable body armor, with IIIA providing the highest level of concealable protection. Ballistic packages designated as levels III and IV are hard, tactical body armor commonly used in SWAT operations.

Under the new standard, the NIJ has heightened testing requirements for all five levels. MSA's TRP3A body armor package is a level IIIA protection package utilizing MSA's patent pending design and Paraclete(R) ComforTech Reinforcements that reduce body armor weight and deliver a greater flexibility index when compared to many other ballistic vests certified under the former NIJ standard. The end result is a ballistic package that maximizes ballistic protection and trauma reduction without adding weight or sacrificing comfort.

While the TRP3A Templar Package is the first MSA product to be certified to the new NIJ standard, the company expects to have within the next few weeks a full NIJ-compliant product line that features a broad range of ballistic material options, including DuPont Kevlar(TM), Teijin Twaron(TM), Honeywell Goldflex(TM), and DSM Dyneema(TM).

In addition to the emphasis on simulating extended wear, other significant changes to the new NIJ standard include:

- The use of substantially more rounds in testing body armor designs to increase the statistical reliability of armor certified to the new standard - 72 rounds of each caliber shot against 12 armor panels under the new requirements versus 24 rounds shot against 4 armor panels under the former standard.
- The ability to withstand higher velocity projectiles to more accurately simulate real-life threats. For example, the new certification requirements for a level IIIA ballistic package now mandate testing with a .357 SIG round instead of the 9 mm round used in the old standard. The .357 SIG is a common round issued to police forces and, unfortunately, a favorite of criminals due to its increased penetrating power.
- Tougher limitations for blunt force indentation made by a projectile during testing - referred to in the industry as a "backface signature" - as measured with a clay backface.

"Clearly the NIJ has put forth a challenging standard to meet, and that's a welcome accomplishment," said Ron Herring, MSA's Vice President of Global Product Leadership. "Ultimately these changes are going to better protect those who protect us with products that deliver superior performance and greater reliability. With almost 900,000 police officers in service throughout the U.S., we're proud to be among the first to receive certification and provide the next level of advanced protection to those who need it most."

Mr. Herring noted that MSA's team of materials scientists eagerly supported the NIJ throughout the entire development process of this new standard. "While some body armor manufacturers opposed toughening the NIJ standards, because of the difficulty and costs associated with achieving certification, MSA fully supported this initiative and, in fact, provided input into the recommended changes. Our team views the new NIJ standard as an important step to improve the overall level of protection for law enforcement officers everywhere."

While the new standard places more emphasis on the number of rounds a ballistic package can withstand during testing, Mr. Herring noted that MSA

has always maintained a more rigorous testing procedure for all of its products, including ballistic protection packages. "MSA has always utilized a 96 shot protocol during testing, which is higher than the new requirement of 72 rounds outlined in the NIJ standard, as well as applied an aging procedure during the internal verification procedure," he said.

According to FBI data, more than 500 police officers have been killed in the line of duty over the past 10 years. Of those 500-plus fatalities, more than 300 officers were wearing body armor at the time they were shot. The FBI data additionally shows that more than 20,000 officers were injured with a firearm during this same time frame. "These facts alone, combined with the recent and tragic shootings involving officers in Oakland, Cal, and here in Pittsburgh, are evidence enough of the importance of this new standard, and we at MSA are proud to support it," Mr. Herring concluded.

Note: Detailed product information on MSA's new TRP3A Templar Ballistic Package is available on MSA's Website at [www.msanet.com](http://www.msanet.com). Information on additional NIJ-compliant ballistic products will be posted as it becomes available.

Established in 1914, MSA is a global leader in the development, manufacture and supply of safety products that protect people's health and safety. Many MSA products typically integrate any combination of electronics, mechanical systems and advanced materials to protect users against hazardous or life-threatening situations. The company's comprehensive line of products is used by workers around the world in the fire service, oil, gas and petrochemical industry, homeland security, construction, mining and other industries, as well as the military. Principal products include self-contained breathing apparatus, gas masks, gas detection instruments, head protection, ballistic body armor, fall protection devices and thermal imaging cameras. The company also provides a broad range of consumer and contractor safety products through retail channels. These products are marketed and sold under the MSA Safety Works brand. MSA has annual sales of approximately \$1 billion, manufacturing operations in the United States, Europe, Asia and Latin America, and more than 40 international locations. Additional information is available on the company's Web site at [www.msanet.com](http://www.msanet.com).

SOURCE MSA

NOTE TO EDITORS: To arrange a demonstration of MSA's NIJ-compliant ballistic protection packages, or an interview with an MSA technical expert, please contact Mark Deasy or Samantha D'Uva at 412-967-3357.

CONTACT: Mark Deasy  
of MSA

+1-412-967-3357

Web Site: <http://www.msanet.com>