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FACT SHEET

Third Status Report to the Attorney General on Body Armor Safety Initiative Testing and Activities

In 2003, a Forest Hills, Pennsylvania, police officer was shot and seriously injured when a bullet penetrated the front panel of his body armor, made of fabric woven from Zylon®, a high-strength organic fiber. This is the first case confirmed by the National Institute of Justice (NIJ) where any NIJ-compliant armor model failed to prevent penetration from a bullet it was designed to defeat.

In response to this incident and concerns from law enforcement about the effectiveness of body armor, Attorney General John Ashcroft directed NIJ to conduct an examination of Zylon®-containing bullet-resistant armor (both new and used); to analyze upgrade kits provided by manufacturers to retrofit Zylon®-containing armor; and to review the existing process by which armor is tested to determine if the process needs modification. To accomplish these goals, NIJ has worked in collaboration with its technical partners, the Office of Law Enforcement Standards at the National Institute of Standards and Technology and the National Law Enforcement and Corrections Technology Center in Rockville, Maryland.

NIJ has issued three status reports on its body armor studies, available at https://vests.ojp.gov. Although the exact cause of the penetration of the Forest Hills armor has not yet been conclusively determined, it is apparent that the ballistic performance of Zylon®-containing armor may degrade over time as a result of exposure to light and moisture.

Key NIJ findings to date include:

- Ballistic-resistant material, including Zylon®, can degrade due to environmental factors.
- Based on the ballistic/mechanical properties testing of 103 used Zylon®-containing armors (60 of which were penetrated by at least one round during a six-shot test series), it is apparent that used Zylon®-containing armor may not provide the intended level of ballistic resistance.
- Age and visual appearance do not correlate with demonstrated ballistic performance.
- If Zylon® is isolated from external sources of moisture, there is no significant change in its properties.

In response to these findings, NIJ is issuing a body armor standard advisory notice to alert law enforcement to the potential risks associated with the use of Zylon® in body armor. NIJ also is adopting the **NIJ 2005 Interim Requirements for Bullet-Resistant Body Armor** (effective September 26, 2005) set forth in detail in Section VI of the *Third Status Report to the Attorney General on Body Armor Safety Initiative Testing and Activities*.

NIJ urges officers to continue to wear the armor that is issued or authorized by their agencies. Even armor that may have degraded is better than no armor. An officer's risk of fatality is 14 times greater when not wearing body armor.

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