

RECORD VERSION

STATEMENT BY

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AND

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BEFORE THE

COMMITTEE ON ARMED SERVICES

UNITED STATES HOUSE OF REPRESENTATIVES

ON THE INTERCEPTOR BODY ARMOR SYSTEM

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Introduction

Chairman Skelton, Congressman Hunter and distinguished members of the Armed Services Committee: on behalf of the Assistant Secretary of the Army for Acquisition, Logistics and Technology, the Program Executive Officer for Soldier, Brigadier General R. Mark Brown, and I thank you for the opportunity to assure you of the capability of Interceptor Body Armor (IBA) to provide the best protection for the men and women who are serving our country, specifically those serving in Iraq and Afghanistan. It is our privilege to represent the Army leadership, the military and civilian members of the Army Acquisition community. Most importantly, it is my privilege to serve our Soldiers and those who lead them who rely on us to provide them with the best force protection equipment available so they can accomplish their missions and return home safely. With us today is Specialist Gregory Miller from C Company, 2nd Battalion, 327th Infantry, 101st Airborne Division (Air Assault). SPC Miller sustained a hit by a 7.62mm round while wearing Interceptor Body Armor and was able to continue his mission as a result of the IBA protection.

Force protection is the U.S. Army's number one priority. We value the lives of each and every one of our Soldiers and the lives of all men and women who serve our country. We do everything we can to ensure that we provide them with the best protection available when they go into harm's way. Interceptor Body Armor has been proven to be the best product available, through rigorous live-fire and environmental testing, and it has been proven in combat. If we were

going to Iraq or Afghanistan tomorrow, IBA is what we would wear—not because of orders, but because we know it is the best.

Every Soldier has at least one set of body armor, and when improvements are made, we field the new equipment to our troops as soon as possible, with priority to those in combat or deploying to combat.

We are not satisfied with the status quo. We continue to seek improvements to body armor, and when we are presented with a potential improvement, we test it to the highest standards. When it meets those standards, production and fielding begin to provide the best protection available.

Today we will address the fact that the body armor we are presently fielding to our troops is the best available anywhere.

Procurement Overview

Recent media reports have called into question the Army's acquisition process as it pertains to body armor. We can assure all of you that no favoritism has been shown in the acquisition process, as has been alleged by Pinnacle Armor, a company based in Fresno, California. Dragon Skin has been rejected by the Army because it has repeatedly failed to meet our performance specifications during independent testing.

Over the last three years alone, industry has had three opportunities to compete in Army body armor solicitations. Pinnacle Armor has, to our knowledge, never participated in the full and open solicitation process.

Pinnacle Armor representatives did participate in an industry day on March 7, 2006, but did not respond to a subsequent request for information on innovations in body armor technology.

The Army also has periodic Soldier Protection Demonstrations, at which vendors may demonstrate their products. Pinnacle presented Dragon Skin for evaluation in June 2006. The user evaluation panel—consisting of three members from the Directorate of Combat Developments, U.S. Army Infantry Center, and two members from Project Manager Soldier Equipment—eliminated Dragon Skin from consideration because it was deemed to be operationally unsuitable. First, it is not a modular system and therefore cannot be configured based on threat level. Second, it weighs considerably more than our current body armor.

Potential contractors may also submit ideas through the web-based Soldier Enhancement Program, administered by the U.S. Army Infantry Center.

The Army has shown great interest in a flexible system of armor such as Dragon Skin, and we want to be apprised of any improvements that Pinnacle might make to its armor. But, any system must meet the same rigorous testing standards applied to our current products, standards that are higher than those of the National Institute of Justice. So far, Dragon Skin has not measured up in such testing.

IBA Proven in Live-Fire and Environmental Testing—and in Combat

Interceptor Body Armor is a modular system that features an outer tactical vest with hard protective plates called Enhanced Small Arms Protective Inserts

(ESAPI). The IBA system has been subjected to rigorous ballistic testing in ambient conditions and in environmental conditions that simulate those of the current theaters of operation in Iraq and Afghanistan. The testing also simulates conditions on the runway before and after transport as well as conditions in the belly of transport aircraft. The IBA system has passed those tests with no failures.

For reasons of operational security, the Army prefers not to publicize detailed results of ballistic testing. We face a media-savvy enemy, and information on test protocols can be exploited and used against our Soldiers. However, recent media reports that have questioned our armor have compelled us to release limited test data in the interest of assuring Soldiers, their families, Members of Congress, the media, and the general public that we are doing everything we can to protect the troops. Our body armor is the best that is available. We are confident in its ability to stop bullets and fragments and to save lives, and our Soldiers and their families should have every confidence in this armor.

Dragon Skin Suffers Catastrophic Failure in Testing

As stated earlier, Pinnacle Armor has never submitted a proposal to a U.S. Army solicitation for a contract for ballistic plates or soft body armor. Still, the Army has shown interest in Pinnacle's Dragon Skin product because the Army believes that a flexible system could have potential benefits in the field.

In four tests conducted from May 2004 to February 2006, Dragon Skin failed to meet Army standards. A fifth test, in December 2005, was inconclusive.

Because of reports that Soldiers may have been wearing Dragon Skin in theater, the Army issued a Safety of Use Message in March 2006 that stated that “in its current state of development, Dragon Skin’s capabilities do not meet Army requirements.” Soldiers were asked to dispose of any unauthorized body armor.

In the interest of fairness and because of intense media interest in Dragon Skin, the Army chose to run a full test of Dragon Skin last Spring. In May 2006 H.P. White Laboratory Inc., an independent facility certified by the National Institute of Justice for ballistics testing, tested Pinnacle Armor’s SOV 3000 Level IV Dragon Skin vests, using the same test protocols used with the Interceptor Body Armor system.

Tests were conducted in ambient conditions and after exposing vests to a variety of environmental conditions. Vests were exposed to extreme temperatures (-60 degrees Fahrenheit to 160 degrees Fahrenheit) to simulate the extreme conditions of transporting body armor to theater and the environment common in the Middle East. Test protocols also call for immersing vests in saltwater, oil and diesel fuel to simulate various conditions of war, an impact drop test, and a temperature shock test. Before testing was halted, the Dragon Skin vests suffered 13 of 48 first - or second - record shot complete penetrations, failing four of eight initial subtests.

Though one first shot bullet complete penetration results in automatic First Article Test (FAT) failure, the Army continued to test Dragon Skin for almost three days to eliminate any perception of bias in testing.

Dragon Skin's design was found to be sensitive to curvature induced airgaps, shot location, and extreme temperatures. Dragon Skin failed to maintain ballistic integrity after six hours at temperatures Soldiers experience in Operations Iraqi Freedom and Enduring Freedom. The adhesive used to hold the Dragon Skin discs together failed in extreme heat. The discs slipped to the lower portion of the armor panel. In actual use, this would have exposed much of the torso region.

It is important to reiterate that this was the same fair and independent testing that was passed by our current Interceptor Body Armor system with zero catastrophic failures, and zero first shot complete penetrations.

The Weight Factor

Although no body armor will be fielded to our troops until it has passed rigorous testing, there is another key factor when determining a system's operational suitability: the weight of the system. Soldiers must be able to maneuver in combat, and data from human factors engineers suggest that a Soldier's total combat load should not exceed one-third of his or her body weight. A considerably lighter load is optimal.

The current Outer Tactical Vest (OTV) with ESAPI plates, size large, weighs approximately 28 pounds. A Dragon Skin SOV 3000 that offers a comparable total area of coverage weighs 47.5 pounds. An Improved Outer

Tactical Vest that will be fielded soon is three pounds lighter than the current OTV.

Body armor is but one component that adds weight to a Soldier's combat load. We must also consider the weights of helmets, firearms, ammunition, boots, clothing, batteries, and essentials such as water.

The Army continues to look at ways to reduce the weight of body armor and all other Soldier equipment and to better distribute that weight.

The Army and Marines also continue to evaluate potential future threats so that our next-generation ballistic plates stand up to current and future threats. In a report dated April 26, 2007, the Government Accountability Office found that:

“Army and Marine Corps have taken several actions to meet theater requirements, assure testing, and share information on body armor.

We also found that contractors and non-DOD civilians receive body armor if this provision is included in a negotiated contract. Specifically, we found that the Army and Marine Corps:

- are currently meeting theater ballistic requirements and the required amount needed for personnel in theater, including the amounts needed for the surge of troops into Iraq;
- have controls in place during manufacturing and after fielding to assure that body armor meets requirements; and
- share information regarding ballistic requirements and testing, and the development of future body armor systems, although they are not required to do so. “

There have been eight improvements to the current IBA system, including four vest weight reductions; enhancements to the ballistic plates; the introduction of supplemental protection for the sides, arms, neck and groin areas; and improvements to the overall design of the outer vest.

Cost is Not an Issue

The Army fields what is best for our troops in terms of force protection. Cost and affordability are not issues. IBA has been deemed the best through testing, and that is why it is our body armor of choice. We have all of the funding support we need to make sure that every Soldier has the protection he or she needs. However, the Army is continually evaluating new technology, and additional funding for research and development would expedite that work. As a matter of fact, in the interest of fairness, the Army spent \$250,000 on the May 2006 test of Dragon Skin, which was an extra step taken to ensure our evaluation was totally objective.

Conclusion

This is one of the most dangerous times in our history, and the Army takes force protection very seriously. Body armor has come a long way since the Vietnam era, when Soldiers were provided with soft flak vests. Body armor evolved through the 1990s, and each new generation has increased coverage and ballistic protection. We are confident that our current system is the best that is available, but the Army will continue to look for ways to increase protection and

reduce weight. It is imperative that we provide our Soldiers with the best possible equipment to enable their mission success and safe return home.

We thank you for your continued leadership, sound advice, and strong support. It is a distinct honor to appear before you today, and to be able to assure the Members of Congress, the American people, and our Servicemembers and their families, that we **have** the best equipment, and that we are totally dedicated to continually improve that equipment.