## INTRODUCTION AND SOME REMARKS

Mr. Chairman and Honorable Members of this Committee,

Thank you for the opportunity to come before you today to try and give you the facts and information needed to make sure that as long as we have American men and women in harm's way in Iraq, Afghanistan or anywhere else, they will have the best possible body armor protection available.

As the most technologically advanced nation in the world, we have to ask ourselves "Why are we giving our troops essentially the same body armor that was developed a decade before 9/11?"

My name is Murray Neal and I am the founder and Chief Executive Officer of Pinnacle Armor, a company started in Fresno, California, 13 years ago in the agriculturally rich Central Valley.

In addition to body armor, we manufacture armors for buildings for ballistic and explosive blast threats used in many government facilities and military bases, and it's very likely you've been in buildings protected by our products. We also make armor for vehicles, vessels and aircraft among other types of armor systems.

But we all know why I'm here today. I make Dragon Skin® and despite what you may have heard from some diehard military traditionalists, it's the best body armor technology that can be made and we have the evidence to prove it.

There was a time when the Army valued our technologies and products so much that we were chosen to design, manufacture and install an armor shield to keep the Army Chinook helicopter fleet from being grounded in 1999, due to an unusual and compelling urgency contract. This resulted in the development of a record performance armor system at a never before established low weight in a short time line never before attained for armor development.

All that I ask for today from you and your staff is a FAIR, HONEST, and UNBIASED HEARING.

I would be remiss if I didn't tell you of my deep disappointment and concern in coming here. As one of your top staff members, has put out dis-information

about our body armor. That information is included in the handout provided with all the other documentation in support of the facts that we will be presenting to you.

I am additionally concerned by the fact that I was declined a reasonable delay for 3<sup>rd</sup> party endorsements when provided less than two weeks notice, after I was notified on Tuesday May 22<sup>nd</sup> of a hearing on Thursday May 24<sup>th</sup> which was cancelled on Wednesday May 23<sup>rd</sup>. It would seem that there is a specific convenience for convening these two meetings in such short order that does not bode well for non-biased review.

Even more disheartening was finding out that subsequent to that, there was a sub-committee closed door hearing specific to this, obviously being single sided. Then there was the final decision not only to deny us the time to make appropriate arrangements for third party witnesses, but to selectively choose to not re-invite Mr. Nevin Rupert, who was invited to the original May 24<sup>th</sup> hearing. Mr. Nevin Rupert who has had over 33 years of Federal service, of which 24 years service was working with the Army in their Armor Materials Branch, was the Army's "Go-to-Specialist" for composite armors and specifically for 7 years, their selected ballistician for the Dragon Skin<sup>®</sup> technology transfer.

I am a straight-shooter and I am as forthright about that as I will be about every single thing which I tell you today.

Again, all that I ask for today from you and your staff is a FAIR, HONEST, and UN-BIASED HEARING.

Following last month's NBC expose on body armor, we saw a U.S. Army briefing at the Pentagon on May 21 in which the Dragon Skin<sup>®</sup> body armor system was ridiculed by a militia of military personnel. A battery of Army administrators chided our Dragon Skin<sup>®</sup> product and myself, because it had been featured in a series of NBC News reports that questioned whether the Army seriously was providing troops in combat the best body armor possible. The Army asked that NBC not describe the bullets and the velocities used in that test, yet General Brown himself for visual value to the Pentagon briefing specifically calls out one of the same projectiles.

You need to know that WE didn't go to NBC. They came to us after hearing about Dragon Skin<sup>®</sup> from operators in the field and learning that it had been in service for more than 10 years with outstanding results.

During the news briefing, the Army disgustingly took great liberties in deliberately stating innuendo with the focus on spreading doubt to those viewing when saying, it could not comment on how many of our brave men and women have been killed wearing Dragon Skin® even though had.

For the record, there has NEVER been a death or serious injury from anyone while wearing the Dragon Skin® body armor. And that is from those who have been shot as many as 16 times without failure, up to and including, substantial IED fragmentation resistance, up to and including, 20mm fragmentation without failure, where the soldiers and contractors are still alive and well today, solely due to the additional uninterrupted coverage and battlefield proven performance capabilities of the Dragon Skin® body armor.

We have many testimonials where the wearer did not even bruise from being shot. This is evidenced in the reduced trauma by as much as 60% below the typical plate systems today.

Pinnacle Armor is a well-respected company that has produced a wide array of protective products for the U.S. Government, Military, and private agencies since 1993, from items that protect sensitive government buildings to body armor systems used by special operations forces around the globe. Some of our products are classified, performing in the shadows of the special operations world. I am not allowed to tell you exactly which special operations groups use Dragon Skin® and/or Pinnacle products but NBC has revealed that special operatives of the Central Intelligence Agency have tested, approved, and now wear Dragon Skin® body armor. And I can tell you that those ballistic performance requirements far out weigh those of the Army.

The U.S. Government routinely comes to us to solve their protective problems – and we always do. The Army has told you that Dragon Skin<sup>®</sup> failed its test miserably and I am here to tell you it did not fail. Every agency we work for is more than satisfied with Dragon Skin<sup>®</sup> and its proven performance in combat situations. IN FACT, the Army is the only entity that has said our armor fails against the threats that it is designed to defeat.

That is specifically why we are here today. We would not be here if it was not for the capability of the Dragon Skin<sup>®</sup> body armor's ability to stand on its own, through all of the witnessed and video taped shoots by Federal, state, SWAT and local law enforcement, as well as the selected military special operations units that have shot it themselves.

If the Army is going to slander me, and deride our products, and continue to put the lives of our men and women at greater risk than necessary, I have no choice but to defend my company, my employees, my vendors and the many customers who rely upon our protective products. Of Pinnacle Armor's 23 domestic and international patents, 13 are related directly to the Dragon Skin<sup>®</sup>, with some of them being classified by the U.S. Government.

It's a sad commentary that the Army's version of the truth doesn't always jive with the facts.

A good case in point would be when General Cocolo during the May 21<sup>st</sup> briefing for the media, said: "Sir. Lets take the gloves off on this. Let's go ahead and counter". He said at the briefing that the Army had not ever revealed information on the May 2006 FAT (First Article Test). However, you will find in the documents provided to you that as far back as September 12, 2006, just 4 months after the termination of the uncompleted FAT test, the Army was sending out an "information paper" to parents trying to raise money, covering the exact issues that they have provided in their news briefing. It was not due to the "tipping the balance in favor of operational security" as General Cocolo said. They had already been disseminating the information.

Brigadier General Mark Brown, in charge of Program Executive Office Soldier, quickly recites the Army's mantra, "...our soldiers and Marines today have the best body armor in the world - bar none."

However, General Brown conveniently failed to tell you and his media audience that in several highly publicized incidents, the Army and Marines recalled FAT tested and post production approved body armor for failing to meet minimum standards. Over the last four years, more than 120,000 "approved" armor systems have been recalled, delayed, shelved and/or sent into combat after the Army issued troubling waivers. And more significantly, there never was a SOUM (Safety of Use Message) issued during those incidents of failure. That means some troops might have been sent into combat wearing body armor not completely up to standards, hardly what I'd call meeting the

mission to send our troops into battle wearing "the best body armor in the world - bar none."

I have never challenged the worth of the Army's Interceptor system. It is good and it has saved many American lives over the years. However, NBC came to Pinnacle Armor because the producers of the show had heard there might be a better system available that the government was not looking at, or avoiding. That's Dragon Skin<sup>®</sup>.

General Brown said he is always looking for better body armor, but I question if that is true.

Despite all the testing of Dragon Skin by Federal, state, local, DoD and even the Army's own Research Lab, General Brown used a single testing day in the NBC story for all his allegations regarding the Army FAT test a year ago. I don't agree with his assessment, nor with the testing procedures and protocols that went on that particular day, but all of our attempts to work with the Army to have the vests retested in a public forum have failed to move the Army from its position.

General Brown said it's personal for him and the others who decide which body armor to use.

Well, Honorable Members, it's very personal for me when I read that in a secret study of 401 Marine deaths in Iraq during 2004-2005, perhaps 80% of them might have survived if they'd had more coverage than the Interceptor offers. I am saddened that perhaps if they'd been wearing Dragon Skin®, hundreds of Marine wives and mothers wouldn't be widows or without loved ones, and sons and daughters would not be without their parents.

In other words, 80% of 401 dead Marines equals 320 of our nation's finest who should be alive today and that is the MAJOR reason I am here today to make sure you hear AND know the truth. This is only a part of that. Hold onto the 80% number, then add all of the Marines, Army, Air Force, Contractors and Media Personnel that have died to date, and then look at that now grievously staggering 80% number, it would seem that those coveting the current program have mislead you, the people of the United States and more grievously the men and women who unselfishly serve our country to protect the rights and liberties for all Americans. The Army created this issue of the lack of better body armor protection for our soldiers.

Let me tell you that I was absolutely baffled when General Brown showed you and the media, video and x-rays of Dragon Skin<sup>®</sup> that appeared to have been seriously degraded by Army testing.

Not only do our vendors guarantee our adhesives to withstand 250 degrees above and 60 degrees below zero, we've never seen such catastrophic failures in all the years we've been testing Dragon Skin<sup>®</sup>. We have decade-old vests that still look new despite beatings and hundreds of rounds of bullets fired into them. I can only assume that some of those x-rays depict manipulated armor prior to being photographed, because it is impossible, and anyone with an understanding of physics will tell you, it is impossible for the round disks in the vest to fall SIDEWAYS and stack up on each other like casino chips. The last I heard, gravity falls downward, not to the right or left.

A secondary validation of this would be to view the test shots on the video. There you will NOT see any bulges of discs turned sideways, just the flat layout of the discs with their outlines showing through the textile carrier material. It is nearly impossible to turn a 2" diameter disc on its side in such a tightly compressed, heavily-adhesive-laminated area, much less multiple rows of them. And it would most certainly show up on the video as bulges over 2" thicker in those regions. That just did not happen.

I'm sure some of you are scratching your head and asking yourself, "Why would the Army lie and why would they be telling us stories that aren't true about Dragon Skin<sup>®</sup>.

Well, Honorable Members of Congress, it is not hard to see the full picture when you notice in the document handout that the Army has sent out at least 3 different briefing papers. I imagine that it must be good to have test data that fits each end recipient, instead of one set for everyone. In that you will clearly see on the motor oil post x-ray bullet cores present where they use that x-ray to falsely claim a complete penetration, the same is true for the diesel fuel exposure and the impact drop post x-ray.

I was also disappointed that General Brown didn't explain to you or the media why the Interceptor vest tested by NBC failed after a handful of bullets were fired into it at room (Ambient) temperature. While he says body armor must pass high and low temperature tests, the Interceptor vest tested by NBC failed at room temperature while Dragon Skin® continued to perform. It performed

better than the latest and greatest designed plate for the Interceptor. Despite Army claims that the ESAPI plates used by NBC were fake, which they were not, anyone questioning that can see that the threat level color green which denotes level 4.

And by the way, we have NEVER had a problem with our bullet-defeating discs slipping after being soaked in diesel oil, or at 60° below zero where the armor is as hard as a brick, or at higher elevated temperatures or temperature variations, and there are thousands of our Dragon Skin<sup>®</sup> vests right now in theatre, many of which have been worn every day throughout numerous deployments, and for several years in multiple cases without failures.

And may I ask you as Members of Congress, has the Army ever shown you the test records for the Interceptor or allowed you to see footage of Interceptor tests? They have a pronounced aversion to that, as well as with an open, but well regulated, independent side-by-side test that meets their protocol.

Let's allow some non-Army, highly acclaimed Government or civilian ballisticians do the testing.

I must also take strong issue with General Brown's egregious assertions that Dragon Skin® weighs 20 pounds more than Interceptor does. The Army ORDERED an XL vest to see how many discs we could put into it. It was a full torso wrap with added side and upper disc coverage, one that we do not manufacture due to the weight and possible restriction of full arm motion, but we did it per the specific request of Brigadier General Moran. Then the Army holds it up against a smaller Interceptor, with substantially less rifle defeating coverage? COME ON! Our vests are proven to be comparable in a-completed-as-worn system weight and vastly more protective than anything the Army's using and General Brown knows it. It would not matter if it is our system or any other system, if you add more coverage you do add weight. However, adding flexible uninterrupted coverage is always better than rigid plate coverage with gaps, which further restricts movement.

I do agree on one point with General Brown, that the Army halted the testing in May 2006 before it was completed. But what disturbs me is that the Army showed all these x-rays of Dragon Skin<sup>®</sup> that supposedly allowed bullets to go right through, what they called FULL PENETRATIONS that could be called "kills".

That is seriously misleading. Except for the 8 rounds fired through the textile of the vest where there are no protective discs, to gather so-called data points, and that is never held against you as a failure.

Yes, I was at the test, and yes I watched the pre-x-ray session, but was only allowed to view two sets of post x-rays.

As to why there are time lapses in the video tape shown by the Army to you and the media; You will have to ask the Army. They ran cameras continuously throughout the testing. I'm sorry they didn't show the tape of the testers arguing over how to test flexible body armor. The new technology of the flexible rifle defeating Dragon Skin<sup>®</sup> body armor seems to have the Army and its testing crew confused.

No one else has a problem with this high-tech concept, even the National Institute of Justice figured out how it works, I'm sorry they just don't understand it. They still have a ceramic plate mentality.

Let me also add that I was personally perplexed at the General's claim that the testing video in Germany shows the technician holding up the armor with one hand and then saying to you the audience, "If you pick that up, I defy you to say that lab worker could have done that", Once again comparing apples to oranges, another quick innuendo and doubt setter, as it is clearly evident that the tests were conducted on 10"x12" configured armor samples. Why the meaningless and totally inaccurate dig at Dragon Skin<sup>®</sup>?

Some of the dads who have come to me seeking Dragon Skin<sup>®</sup> for their sons and daughters in harm's way believe there is some sort of conspiracy going on to keep better body armor off the market.

I don't want to believe that, but H.P. White Labs in Maryland had an explosion and fire shortly after NBC sought to get some Army test data. I do find that interesting.

General Brown has ALSO said that Pinnacle Armor has never responded to a full and open competition. That's not true. You will also find evidence of submissions that we have made in the documents provided. What he does fail to disclose to you is that in ALL cases we have been rejected as we did not want to compete with anything but a flexible panel, as they would not change the

requirements to accept an alternative armor solution to a rigid plate requirement and rejected us every time. That does not seem to be like an open and objective way to get the best armor offerings for competitive selection.

We have actually received and submitted several invitations to compete, but we were told that we would ONLY be accepted if we bring single plate body armor technology, NOT our flexible vests technology. I refuse to step back in time for the Army and fail to provide our men and women the best body armor America has to offer.

It's not that we won't compete; it's that the Army won't let us compete with our new technology against their old technology.

If the Army wants to test Dragon Skin® against any of its body armor systems or any other in the world, we're ready. Let's just make sure they're seeking the best overall protection and maneuverability for our troops, not just more of the same old plates.

During the Pentagon presentation, General Brown said, and I quote, "The design (of Dragon Skin®) is sensitive to extreme temperatures and failed to maintain ballistic integrity at temperatures below ambient in Operation Iraqi Freedom."

He said the failure mode caused the disc to delaminate and accumulate in the lower portion of the armored vest and expose the vital organs. He also said that of the thirteen first or second shots, Dragon Skin<sup>®</sup> failed four of eight initial subtests with the threat baseline, which is 7.62 by 63 millimeter armor-piercing AP M2 ammunition.

That's just not true. Again, this is only selective information mixed with misrepresentation and speculation on his part. This too could be due to the information that he was provided. However, a man in his position should verify that both sides of the coin are validated before only subscribing to one iteration of the data as presented.

What he has failed to tell you is that 88 shots were fired, not 48 as claimed. 80 of those shots were as per the shot requirements, 5 due to some shots being too low or high in velocities and thus requiring additional shots into the target, and 3 that were fired on single discs set aside and shot for R&D purposes. Hardly a failure of FAT test protocols and procedures. By the way, of the 3 individual

Congress wants to have a real independent and fair test of body armor ... well, bring it on.

I would like to close with a couple of points after all I have shared with you.

I have always self-funded all my R & D. That too is evident in the fact the technology was in the patent pending phase before we brought it to Natick and the Army Research Laboratories.

In 2003, in the spirit of teamwork and cooperation, I agreed to enter into a Preliminary Technology Transfer Program with the Army Research Laboratory and our Dragon Skin® as part of a Small Business Innovation Research project. That was designed to assist the Army in the understanding of how a flexible armor worked.

There is more information in the Army Research Lab Ballistics Library where you'll find 102 pages of documentation published in June of 2003 under ARL-CR-527.

Why does the Army attack Dragon Skin® when the Army is still buying Dragon Skin® behind the scenes through non-normal channels for its top brass? And what about the troops on the streets of Fallujah and Rimadi? Don't they also deserve the best body armor?

Dragon Skin® is truly a PROVEN commodity in combat! ALL, and I repeat, ALL of our military men and women deserve to be wearing it. It is comparable in cost and weight, but much more effective against multiple high-powered rounds and substantially so against IED threats. Dragon Skin® does not break when it hits the ground or is harshly handled in a combat environment like the ceramic plates do on the Interceptor.

In addition to my testimony, I have also provided your staff with background documentation on what I have told you today. This includes the letter response from one of your staffers that raised the concerns I mentioned at the start of my testimony, a document that shows how the Army has flip-flopped on how it feels about, and has dealt with Dragon Skin<sup>®</sup>, the Certificate of Conformance from our adhesive laminator vendor attesting to the standards that meet and exceed the temperature levels the Army has claimed failed in the testing of Dragon Skin<sup>®</sup>, a comprehensive review of Dragon Skin<sup>®</sup> by the respected

DefenseWatch on Military.com, and a detailed point-by-point response from me to the Army's briefing to the media on May 21<sup>st</sup>.

I thank you for your time, your invitation to lay out the facts and the true story of Dragon Skin®, and for giving me the opportunity to share with you my passion for protecting the lives of the men and women in service to our nation, whether in an office building here in Washington or other parts of America, or patrolling in the streets of Iraq and Afghanistan.