



LOUISE M. SLAUGHTER
CONGRESS OF THE UNITED STATES
25TH DISTRICT, NEW YORK

September 27, 2016

The Honorable Ashton B. Carter
Secretary
United States Department of Defense
1000 Defense Pentagon
Washington, DC 20301

Dear Secretary Carter,

I appreciate you requesting the Army Surgeon General respond to my prior letter concerning Traumatic Brain Injury (TBI) and blast overpressure exposure in military combat and training environments. I'd like to raise some additional points and bring more information to your attention regarding why the Department's previous response was inadequate. I appreciate your efforts and the work of those in the armed services to protect our men and women in uniform. However, more needs be done.

The Congressional mandate in the National Defense Authorization Act of FY2006 established the Department program for Prevention, Mitigation, and Treatment of Brain Injuries. Department Directive 6025.21E includes responsibility for the Secretary of Defense to ensure that new technology developed under this Directive are effectively transitioned and integrated into Department systems.

The Department is failing to collect the blast exposure data needed to help us understand the true depth of this problem. This information is critical to understanding the relationship between routine exposures, like those in the field and training environments, and servicemembers who are suffering from Post Traumatic Stress Disorder (PTSD) and TBI. I'm left to wonder if this is because the Department simply won't like the results.

This wait-and-see approach is reminiscent of the tobacco industry's approach to cancer research and the National Football League's slow response to the brain disease CTE. Should the Department continue its current policy of denying the relationship between brain injury and primary blast exposure¹, the consequences could be equally as tragic for our brave men and women in uniform.

Every day that the Department fails to move forward with concrete steps to understand and prevent blast overpressure exposure, complex injuries become increasingly prevalent

¹ BLAST-FY15 Report to Executive Agent on Prevention, Mitigation, and Treatment of Blast Injuries

and difficult to diagnose. In some instances, exposure to blast over-pressure has resulted in the development of chronic traumatic encephalopathy (CTE), a degenerative brain disease most well-known for affecting former football players. This devastating condition, like TBI and PTSD, can result in memory loss, confusion, impaired judgment, depression, aggression, and other symptoms.

That's why the Department must start doing more now. As the New York Times recently highlighted in the article *Research Traces Link Between Combat Blasts and PTSD*, a recent study has identified evidence of brain tissue damage caused by blasts alone, not by concussions or other injuries.² This research suggests what we have feared the most: that PTSD, TBI, CTE and other neurocognitive disorders that produce devastating brain dysfunction may be due to a physical injury from blast overpressure rather than psychological stress.

The Department has a responsibility to ensure it can respond effectively to the blast related injuries suffered by servicemen and women, whether they've been exposed during routine training exercises or deployments abroad. The multifaceted and complicated nature of these conditions requires us to act decisively in the short-term to better understand these conditions while working to determine appropriate long-term measurement and response standards.

Measurement technologies are already available to the Department that can monitor and record blast overpressure and provide data that can be collected and analyzed. This is an important first step that the Department should take immediately to better inform our efforts to understand the long-term effect of this exposure.

While the department is still working to determine biomedically valid injury thresholds, it will fall deplorably short in determining those thresholds without the collection of data on the frequency and intensity of exposure to blast overpressure, which can be collected today and linked with the servicemember's medical record. Additionally, the long-term neurological impacts of these conditions not only significantly impact a servicemember's health, they also present major costs to the veterans' health care system.

A recent announcement from the U.S. Army that the 84mm, anti-armor Carl Gustaf will be a part of the standard equipment for every infantry platoon is yet another reason the Department cannot afford to drag its feet on beginning to take action. This weapon has one of the highest overpressure exposures, ranging from 5 to 13psi, where the established safe threshold – based on auditory and pulmonary damage – is 4psi. With this weapon becoming more prevalent among soldiers in both training and theater environments, it is imperative that the Department begins collecting data surrounding exposure to overpressure.

Like development of cancers from radiation exposure, development of neurologic disorders from blast exposure is progressive, often taking decades to manifest. In the 1920s radiation badges were mandated for all personnel working in environments with

² http://www.nytimes.com/2016/06/10/us/ptsd-blast-waves-research.html?_r=0

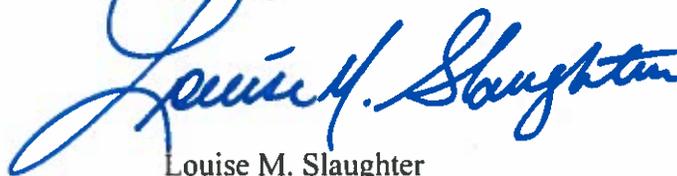
the potential for radiation exposure. This was a critical first step in developing biomedically valid injury thresholds that emerged after 40 years of monitoring. It is time that blast overpressure exposure is treated as an occupational hazard with proactive, individualized monitoring. This data will not only enable development of injury thresholds, but will also objectively document servicemembers' exposure to ensure they are provided the medical care they deserve later in life.

The approach being taken by the Department so far as outlined in the Army Surgeon General's letter falls woefully short of what our servicemembers expect and deserve. The scientific evidence will continue to mount in the face of the Department's inaction, proving the chillingly reality that trauma from blast overpressure harms the brain with long-lasting and devastating effects.

In order to live up to the commitment our nation has made to all who serve, the Department must finally use the tools available today and begin to scratch the surface of how blast exposure can contribute to these conditions.

I look forward to a prompt reply on the definitive steps you are taking to address this critical issue.

Sincerely,

A handwritten signature in blue ink that reads "Louise M. Slaughter". The signature is fluid and cursive, with a large initial "L" and "S".

Louise M. Slaughter
Member of Congress