DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 2013

WEDNESDAY, JUNE 6, 2012

U.S. SENATE,
COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:03 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Daniel K. Inouye (chairman) presiding.

Present: Senators Inouye and Cochran.

NONDEPARTMENTAL WITNESSES

OPENING STATEMENT OF CHAIRMAN DANIEL K. INOUYE

Chairman INOUYE. I would like to welcome our witnesses this morning to the Department of Defense subcommittee to receive public testimony pertaining to various issues related to the fiscal year 2013 Department of Defense (DOD) appropriations request. Due to the number of witnesses who wish to present testimony this morning, I'd like to remind each witness that they will be limited to no more than 4 minutes. However, your full statements will be made part of the official record, and I look forward to hearing from each of you today on the many important and serious subjects that you will address.

But before I do, I'd like to recognize the Vice Chairman of the Committee, Senator Cochran, for any comments he may wish to make.

STATEMENT OF SENATOR THAD COCHRAN

Senator COCHRAN. Mr. Chairman, I'm pleased to join you in welcoming our witnesses to the hearing today reviewing the fiscal year 2013 DOD request for appropriations. We appreciate the witnesses' interest in the subject and we look forward to hearing your testimony and hearing from each one of you.

Thank you.

Chairman INOUYE. Our first witness represents the Air Force Sergeants Association (AFSA), former Command Master Sergeant John R. "Doc" McCauslin.

STATEMENT OF CHIEF MASTER SERGEANT JOHN R. "DOC" McCAUSLIN, U.S. AIR FORCE (RETIRED), CHIEF EXECUTIVE OFFICER, AIR FORCE SERGEANTS ASSOCIATION

Sergeant MCCAUSLIN. Chairman Inouye, Ranking Member Cochran, and distinguished members of the Department of Defense subcommittee: On behalf of the 110,000 members of the Air Force Sergeants Association, thank you for this opportunity to present the views of our members on the military personnel programs that affect those serving and who have served our Nation. Your continuing efforts toward improving the quality of lives have certainly made a real difference.

In the interest of time, I will briefly touch on four specific funding goals for this subcommittee. Those goals are: military pay; healthcare; Survivor Benefit Plan (SBP) Dependency and Indemnity Compensation (DIC); and Guard and Reserve GI Bill. Three others of great importance to us—tuition assistance, final pay, and sequestration–were covered in my written testimony to you.

Thanks to the great work of your subcommittee, the Congress has made significant strides to restore military pay comparability over these past 12 years, including a statutory change that explicitly ties military pay raises to the Employment Cost Index growth. Past history has regularly and consistently demonstrated that significant problems occur when those pay and benefits are reduced or eliminated.

The very top of all discussion about earned benefits is TRICARE. Healthcare and the immediate receipt of retirement pay are the only incentives that DOD can offer to entice someone to volunteer 20 or more years of their youth to our Nation just to be eligible. Despite acknowledging this long-term commitment, DOD again reintroduced plans, rejected by the Congress in the past, to force military dependents and retirees to either pay more for their healthcare coverage or to opt out of TRICARE entirely.

AFSA considers it a supreme breach of faith to force those who serve to sacrifice even more. It denigrates the years of up-front service and the unlimited liability required of career military and their families. And if breaking faith with those currently serving is wrong, so is imposing a major bait-and-switch change on those who already completed a 20- or 30-year career induced by promises of current benefits.

Recent public statements speak to the conundrum we presently think of. President Obama has said, "As a Nation, we're facing tough choices as we put our fiscal house in order. But I want to be absolutely clear: We cannot and we must not balance the budget on the backs of our veterans." All of our military retirees are those veterans.

An appropriate quote by Senator Jim Webb recently was, "You can't renegotiate the front end once the back end is done. This is an obligation that has been made to people whose military careers are now done." Senator Webb understands that very few join the military intent on making it a career.

I am pleased to note that the 2013 National Defense Authorization Act approved by the Senate Armed Services Committee 2 weeks ago rejects many of those planned increases and the bill now awaits action on your Senate floor. I urge you to support their efforts with the necessary appropriation.

AFSA endorses the view that surviving spouses with military survivor benefit plan annuities should be able to concurrently receive earned SBP benefits and DIC payments related to their sponsor's service-connected death. We would like to thank Senator Bill Nelson for introducing S. 260 and the 50 Senators who have cosponsored this important repeal legislation.

Arguably, the best piece of legislation ever passed by the Congress, and thanks to the efforts of many of you here, the Post-9/11 GI Bill, is providing unprecedented educational opportunities for thousands of men and women who served in uniform since 9/11.

Regrettably, benefits for joining the Selective Reserve were not included in that bill. AFSA strongly recommends the Congress work to restore basic Reserve Montgomery GI Bill benefits to the historic benchmark of 47 to 50 percent of active-duty benefits. In conclusion, on behalf of all AFSA members, we appreciate your efforts and, as always, we're ready to support you in matters of mutual concern.

PREPARED STATEMENT

AFSA contends that it is of paramount importance for a Nation to provide quality healthcare and top-notch benefits in exchange for the devotion, sacrifice, and service of our military members. To quote Bob Woodward from his book "The War Within", "Those who serve and their families are the surrogates of all Americans. They bear the risk and strain of a year or more in a foreign land. So many have spent their youth and spilled their blood in a fight far from home. What do we owe them? Everything. And what do we give them? Much less than they deserve."

[The statement follows:]

PREPARED STATEMENT OF CHIEF MASTER SERGEANT JOHN R. "DOC" MCCAUSLIN

Chairman Inouye, Ranking Member Cochran, and distinguished members of the Department of Defense subcommittee: On behalf of the 110,000 members of the Air Force Sergeants Association (AFSA), thank you for this opportunity to present the views of our members on the military personnel programs that affect those serving (and who have served) our Nation. This hearing will address issues critical to those serving and who have served our Nation.

Your continuing efforts toward improving the quality of their lives have made a real difference, and our members are grateful. In this statement, I have identified specific funding goals we hope this subcommittee will consider for fiscal year 2013 on behalf of current and past enlisted members and their families. AFSA represents Active Duty, Guard, Reserve, retired, and veteran enlisted Air Force members and their families. The content of this statement reflects the views of our members as they have communicated them to us. As always, we are prepared to present more details and to discuss these issues with your staffs.

PROPOSED FISCAL YEAR 2013 FUNDING

The administration requested $525.4 billion for Department of Defense (DOD) base budget for fiscal year 2013, a $5.2 billion or 1-percent reduction from this year's spending level. We understand a plan recently approved by the House Appropriations Committee provides an increase of $1.1 billion more than the fiscal year 2012 level and $3.1 billion more than the President's request. AFSA encourages you to follow their lead to ensure the Department has sufficient funds to meet the needs of our Nation's defense.

MILITARY PAY RAISES

Thanks to the great work of this subcommittee. The Congress has made great strides to restore military pay comparability over the past 12 years, including a statutory change that explicitly ties military pay raises to Employment Cost Index (ECI) growth. The current formula provides military servicemembers with a 1.7-percent pay raise in fiscal year 2013, and we urge you to set aside the necessary funding to make certain this is so. That said, we are very concerned that the administration plans break the tie to civilian pay growth in future years by limiting military raises to 0.5 percent, 1 percent, and 1.5 percent for 2015, 2016, and 2017, respectively. Past history has clearly shown that significant retention problems will occur when pay and benefits are reduced or eliminated. Recent calls to cut back on military raises, create a new comparability standard or substitute more bonuses for pay raises in the interests of deficit reduction are exceptionally short-sighted in view of the extensive negative experience with military pay raise caps. AFSA urges the subcommittee to fully fund these important pay increases not just this year, but in future years, based on the ECI as specified in current law.

SEQUESTRATION

Our members are deeply concerned with the prospect of sequestration and how it could undermine proper defense funding in the coming years. As a result of the Budget Control Act of 2011, DOD now faces the specter of another $500 billion in defense cuts beyond $490 billion in reductions previously agreed to. That is, of course, unless the Congress intervenes. Military leaders from the top down have made it quite clear that an additional $500 billion of cuts would do catastrophic damage to our military, hollow out the force, and degrade its ability to protect the country. America's military strength exists to secure the blessings of ordered liberty for the American people. We sincerely hope Members of Congress can find an alternative to punitive reductions mandated by sequestration which would force across-the-board cuts to defense programs including pay and benefits which would threaten the future viability of the all-volunteer force. Less than 1 percent of the population is shouldering 100 percent of the burden of maintaining our national security, and we hope you will act soon so they won't be left wondering when, or if, the rug will be pulled out from underneath them.

RETIREMENT BENEFITS

The administration's proposed fiscal year 2013 budget called for the creation of a base realignment and closure-like panel that will review current military compensation and recommend changes (most likely reductions) for the Congress to consider. The commission is to be formulated on the premise that the groups agreed upon plan must save DOD money. Instead of approaching the subject with discussion on what is the Nation's obligation to those who serve, the administration plans to use a formula that lays out a predetermined result. We believe those who serve and have served in uniform deserve better. Senior military leaders often speak of the importance of "Keeping the faith" with military members, particularly where earned benefits are concerned—benefits like retired pay and healthcare. Right now, airmen are asking, "Where is the faith?" And they are looking to you, the Members of Congress, to provide that answer. "Passing the buck" to servicemembers instead fulfilling promised benefits will only serve to undermine long-term retention and readiness. Much of the success of the all-volunteer force can be directly attributed to the benefits we provide military members in return for their service and sacrifice. Not just them, but their families, too. Do we want to risk this? I urge you to resist any plan that reduces pay and benefits and fully fund the existing systems that have directly contributed to the extraordinary success of the all-volunteer force for nearly four decades.

TRICARE

No military personnel issues is more sacrosanct than pay and benefits, which is why healthcare is such a sensitive subject. It and the immediate receipt of retirement pay are the only incentives DOD can offer to entice someone to first volunteer 20 or more years of their youth to the Nation just to be eligible. Yet, despite acknowledging this long-term commitment, DOD again reintroduced plans—rejected by the Congress in the past—to force military dependents and retirees to either pay more for their healthcare coverage or to opt out of TRICARE entirely. Specifically, the department proposes to raise beneficiary costs by:

—raising annual fees by as much as $2,000 or more for retired families younger than age 65;
—establishing new annual enrollment fees of up to $950 for retired couples older than age 65;
—imposing "means testing" of military retiree health benefits based on their retired income—something no other Federal program does;
—dramatically increasing pharmacy co-pays to approach or surpass the median of current civilian plans; and
—tying future annual increases to an unspecified health cost index estimated to average more than 6 percent each year.

In announcing these so-called "modest" proposals, DOD leaders stressed their intent to "keep faith with currently serving troops" by avoiding any retirement changes that would affect the current force. But their concept of "keeping faith on retirement" apparently doesn't extend to retirement healthcare benefits, as the proposed changes would affect any currently serving member who retires the day after they were implemented. Further, the proposed pharmacy changes would affect hundreds of thousands of currently serving Guard/Reserve members and families, as well as the family members of currently serving personnel who don't have access to military pharmacies.

Modest increases? How could raising out-of pocket healthcare costs $2,000 annually or increasing pharmacy copays up to 375 percent be considered modest? And I remind the members of this panel that our more senior retirees, those in TRICARE for Life, are already required to participate in Medicare Part B in order to retain their earned healthcare coverage.

AFSA regards all efforts to force those who serve and sacrifice the most, to sacrifice even more, as a supreme breach of faith. It denigrates the years of upfront service and sacrifice required of career military and their families, plus these anti-people proposals will be perceived very negatively by future generations, who may consider civilian employment far more rewarding and safer than military service. And if breaking faith with the currently serving is wrong, so is imposing a major "bait and switch" change on those who already completed 20–30 year careers, induced by promises of current benefits.

At a recent hearing to examine the administration's proposed fee hike, Senator Jim Webb (D-VA) accurately observed, "You can't renegotiate the front end once the back end is done. This is an obligation that has been made to people whose military careers are now done." Senator Webb understands few join the military intent on making it a career which involves multiple moves and hazardous deployments, their children constantly uprooted from schools and spouses from career opportunities, virtually zero in home ownership equity, and upon military retirement, potential age discrimination entering the civilian marketplace. In fact, only 8.5 percent of those who serve in the military ever reach retirement, a percentage derived by dividing DOD's 1.9 million retirees by the Department of Veterans Affairs' (VA) 22.2 million veterans—a percentage that is even less if medical retirees are excluded.

Like Senator Webb, our greatest concern is that the continued erosion of pay and benefits could lead to the end of a professionally led, all-volunteer military that for 39 years and more than a decade of nonstop war has served the American public extremely well. We hope you believe likewise, and will fully fund the military healthcare system.

Other healthcare issues included in our priorities are listed below. Funding for each of these issues is encouraged, and we would be happy to provide additional information if requested:

—exempt those military retirees who entered service prior to December 7, 1956, from the obligation of Medicare Part B payments;
—oppose the various recommendations for retirees aged 38–64 to seek healthcare coverage from somewhere else besides TRICARE;
—include Applied Behavior Analysis (ABA) therapy as part of regular TRICARE coverage; and
—establish a full optometry benefit for military retirees.

TUITION ASSISTANCE

The discretionary Air Force Tuition Assistance program is an important quality of life program that provides tuition and fees for courses taken by Active-Duty personnel. The program is one of the most frequent reasons given for enlisting and reenlisting in the Air Force, and we urge full funding for this program.

FAMILY READINESS AND SUPPORT

A fully funded, robust family readiness program is crucial to military readiness, and especially appropriate given the continuing demands of deployments and the uncertainty of the legacy of the effects 11 years of war have had on servicemembers and their families. AFSA urges the subcommittee to continue much-needed supplemental funding authority to schools impacted by large populations of military students (Impact Aid), fully fund effective family readiness programs, and support the child care needs of our highly deployable force.

MILITARY RESALE SYSTEM

AFSA strongly believes military commissary, exchange and Morale Welfare and Recreation programs contribute significantly to a strong national defense by sustaining morale and quality of life for military beneficiaries both within the United States and around the globe. In surveys looking at the benefits of service, military servicemembers often cite access to the commissary and exchange as one of their top five benefits. With this in mind, we urge this subcommittee to resist initiatives to civilianize or consolidate DOD resale systems in any way that would reduce their value to patrons. AFSA instead urges a thorough review of the findings of an extensive and costly ($17 million) multiyear study that found consolidation is not a cost-effective approach to running these important systems.

RETIREE/SURVIVOR ISSUES

Concurrent Receipt.—AFSA continues its advocacy for legislation that provides concurrent receipt of military retired pay and veterans' disability compensation for all disabled retirees without offset. Under current statues, retirees with 50 percent or greater disabilities will receive their full-retired pay and VA disability in fiscal year 2014. The Congress should now focus on eliminating this unjust offset for veterans with lesser disabilities and in particular, individuals who were medically retired with less than 20 years of service due to a service-connected illness or injury. They are not treated equally.

Age-57 Dependency and Indemnity Compensation (DIC) Remarriage.—AFSA commends Members of Congress for previous legislation, which allowed retention of DIC, burial entitlements, and VA home loan eligibility for surviving spouses who remarry after age 57. However, we strongly recommend the age-57 DIC remarriage provision be reduced to age 55 to make it consistent with all other Federal survivor benefit programs.

Repeal Survivor Benefit Plan (SBP)/DIC Offset.—We endorse the view that surviving spouses with military SBP annuities should be able to concurrently receive earned SBP benefits and DIC payments related to their sponsor's service-connected death. We would like to thank Senator Bill Nelson (D-FL) for introducing S. 260 and the 50 Senators who have co-sponsored this important legislation to repeal the SBP–DIC offset. Despite budgetary difficulties, we sincerely hope the Congress will find the funding to eliminate this unfair offset.

Retention of Final Paycheck.—Current regulations require survivors of deceased military retirees to return any retirement payment received in the month the retiree passes away or any subsequent month thereafter. Once a retirees passes, the Defense Finance and Accounting Service stops payment on the retirement account, recalculates the final payment to cover only the days in the month the retiree was alive, and then forwards a check for those days to the surviving spouse.

Understandably, this practice can have an adverse impact on the surviving spouse. When the retirement pay is deposited, they use those funds to make payment on items such as mortgages, medical expenses, or other living expenses. Automatically withdrawing those funds can inadvertently cause essential payments to bounce and places great financial strain on a beneficiary already faced with the prospect of additional costs associated with their loved one's death. AFSA strongly encourages this subcommittee to appropriate the funds necessary to bring an end to this abhorrent practice.

GUARD AND RESERVE ISSUES

Reduce the Earliest Guard and Reserve Retirement Compensation Age From 60 to 55.—Legislation was introduced during the last Congress to provide a more equitable retirement for the men and women serving in the Guard and Reserves. The proposed legislation would have reduced the age for receipt of retirement pay for Guard and Reserve retirees from 60 to 55. Active-Duty members draw retirement pay the day after they retire. Yet, Guard and Reserve retirees currently have to wait until they reach age 60 before they can draw retirement pay. Although legislation addressing this issue does not exist in the 112th Congress, we urge the members of this subcommittee to support it when and if it is reintroduced.

Reduction of Retirement Age Due to Title 10 Service.—A provision in the fiscal year 2008 National Defense Authorization Act reduces the Reserve component retirement age requirement by 3 months for each cumulative 90 days ordered to Active Duty. However, this provision only credits active service since January 28, 2008, so it disenfranchises and devalues the service of hundreds of thousands of Guard and Reserve members who served combat tours (multiple tours, in thousands of cases) between 2001 and 2008. These contributions to national security are further demeaned by language that specifies eligible service must fall within a given fiscal year (e.g., a reservist receives no credit for a 90-day tour that began in August and ended in November because the period of service spanned 2 fiscal years).

AFSA supports full funding of initiatives that eliminate the fiscal year limitation and authorizes early retirement credit for all Guard and Reserve members who have served on Active-Duty tours of at least 90 days retroactive to September 11, 2001.

Provide Concurrent Retirement and Disability Pay (CRDP) for Service Incurred Disabilities.—National Guard and Reserve with 20 or more good years are currently able to receive CRDP; however, they must wait until they are 60 years of age and begin to receive their retirement check. This policy must be changed, and along with the reduction in retirement age eligibility, is a benefit our Guard and Reserve deserve. They have incurred a service-connected disability, and we must provide concurrent retirement and disability pay to them.

Many Guard/Reserve retirees have spent more time in a combat zone than their Active Duty counterparts. DOD has not supported legislation to provide Guard/Reserve men and women more equitable retirement pay in the past. Additional requirements and reliance has been placed on the Guard and Reserve in recent years. It is time to recognize our men and women in uniform serving in the Reserve components and provide them a more equitable retirement system.

Award Full Veterans Benefit Status to Guard and Reserve Members.—It is long overdue that we recognize those servicemembers in the Guard and Reserve who have sustained a commitment to readiness as veterans after 20 years of honorable service to our country. Certain Guard and Reserve members that complete 20 years of qualifying service for a reserve (nonregular) retirement have never been called to active-duty service during their careers. At age 60, they are entitled to start receiving their Reserve military retired pay, Government healthcare, and other benefits of service including some veterans' benefits. But, current statutes deny them full standing as a "veteran" of the Armed Forces. S. 491, the "Honor America's Guard-Reserve Retirees Act of 2011" introduced by Senator Mark Pryor (D-AR) and a House-approved bill, H.R. 1025 by Representative Tim Walz (D-MN) would change current statues to include in the definition(s) of "veteran" retirees of the Guard and Reserve components who have completed 20 years or more of qualifying service. There is little or no cost associated with this change, it's simply the right thing to do, and I encourage the members of this subcommittee to support Senator Pryor's bill.

Guard/Reserve GI Bill.—Arguably the best piece of legislation ever passed by the Congress, and thanks to the efforts of many of you here, the Post-9/11 GI Bill is providing unprecedented educational opportunities for the thousands of men and women who served in uniform since 9/11 and for many of their family members. Regrettably, many volunteers who join the Selected Reserve were left behind in this legislation because Selected Reserve Montgomery GI Bill (MGIB) Benefits were not upgraded or integrated in the Post-9/11 GI Bill as AFSA previously recommended.

AFSA supports funding of legislation that restores basic Reserve MGIB benefits for initially joining the Selected Reserve to the historic benchmark of 47–50 percent of active-duty benefits; integrates Reserve and Active Duty MGIB laws in title 38, and enacts academic protections for mobilized Guard and Reserve students, including refund guarantees and exemption of Federal student loan payments during activation.

UNIFORMED SERVICES FORMER SPOUSES PROTECTION ACT

AFSA urges this subcommittee to support some fairness provisions for the Uniformed Services Former Spouses Protection Act (USFSPA) (Public Law 97–252). While this law was passed with good intentions in the mid-1980s, the demographics of military service and their families have changed. As a result, military members are now the only U.S. citizens who are put at a significant disadvantage in divorce proceedings. Because of the USFSPA, the following situations now exist:

—A military member is subject to giving part of his/her military retirement pay (for the rest of his/her life) to anyone who was married to him/her during the military career regardless of the duration of the marriage.

—The divorce retirement pay separation is based on the military member's retirement pay—not what the member's pay was at the time of divorce (often many years later).

—A military retiree can be paying this "award" to multiple former spouses.

—It takes a military member 20 years to earn a retirement; it takes a former spouse only having been married to the member (for any duration, no matter how brief) to get a portion of the member's retirement pay.

—Under this law, in practice judges award part of the member's retirement pay regardless of fault or circumstances.

—There is no statute of limitations on this law; i.e., unless the original divorce decree explicitly waived separation of future retirement earnings, a former spouse who the military member has not seen for many years can have the original divorce decree amended and "highjack" part of the military member's retirement pay.

—The former spouse's "award" does not terminate upon remarriage of the former spouse.

—The "award" to a former spouse under this law is above and beyond child support and alimony.

—The law is unfair, illogical, and inconsistent. The member's military retired pay which the Government refers to as "deferred compensation" is, under this law,

treated as property rather than compensation. Additionally, the law is applied inconsistently from State to State.

—In most cases, the military retiree has no claim to part of the former spouse's retirement pay.

—Of all U.S. citizens, it is unconscionable that military members who put their lives on the line are uniquely subjected to such an unfair and discriminatory law.

—While there may be unique cases (which can be dealt with by the court on a case-by-case basis) where a long-term, very supported former spouse is the victim, in the vast majority of the cases we are talking about divorces that arise which are the fault of either or both parties—at least one-half of the time not the military member. In fact, with the current levels of military deployments, more and more military members are receiving "Dear John" and "Dear Jane" letters while they serve.

—This is not a male-versus-female issue. More and more female military members are falling victim to this law. These are just a few of the inequities of this law. We believe this law needs to be repealed or, at the least, greatly modified to be fairer to military members. We urge the subcommittee to support any funding requirement that may be necessary to take action on this unfair law—for the benefit of those men and women who are currently defending the interests of this Nation and its freedom.

CONCLUSION

Chairman Inouye, Ranking Member Cochran, in conclusion, I want to thank you again for this opportunity to express the views of our members on these important issues as you consider fiscal year 2013 appropriations. We realize that those charged as caretakers of the taxpayers' money must budget wisely and make decisions based on many factors. As tax dollars dwindle, the degree of difficulty deciding what can be addressed, and what cannot, grows significantly.

AFSA contends that it is of paramount importance for a nation to provide quality healthcare and top-notch benefits in exchange for the devotion, sacrifice, and service of military members. So, too, must those making the decisions take into consideration the decisions of the past, the trust of those who are impacted, and the negative consequences upon those who have based their trust in our Government. We sincerely believe that the work done by your committees is among the most important on the Hill. On behalf of all AFSA members, we appreciate your efforts and, as always, are ready to support you in matters of mutual concern.

Chairman INOUYE. I thank you very much, Sergeant. May I just assure you that we'll never forget anyone who is willing to stand in harm's way on our behalf.

Sergeant MCCAUSLIN. Thank you, Sir.

Chairman INOUYE. Our next witness, Ms. Elizabeth Vink, represents the International Foundation for Functional Gastrointestinal Disorders.

STATEMENT OF ELISABETH VINK, PROGRAM ASSISTANT, INTERNATIONAL FOUNDATION FOR FUNCTIONAL GASTROINTESTINAL DISORDERS

Ms. VINK. Chairman Inouye, Vice Chairman Cochran: Thank you for the opportunity to present testimony regarding functional gastrointestinal disorders (FGIDs) among service personnel and veterans. My name is Elisabeth Vink, and I am testifying on behalf of the International Foundation for Functional Gastrointestinal Disorders (IFFGD). IFFGD is a nonprofit organization dedicated to supporting individuals affected by functional gastrointestinal and motility disorders through education and research. I am also a proud member of a military family, with my father having served 23 years in the U.S. Air Force, and I appreciate the opportunity to present testimony in support of veterans like my dad.

FGIDs are disorders in which the movement of the intestines, the sensitivity of the nerves of the intestines, or the way in which

the brain controls intestinal function is impaired. The result is multiple, persistent, and often painful symptoms ranging from nausea and vomiting to altered bowel habit.

More than two dozen different FGIDs have been identified, ranging in severity from bothersome to disabling. One thing these conditions have in common is that little is understood about their underlying mechanisms, making them difficult to treat effectively. The onset of a functional gastrointestinal (GI) disorder can be triggered by severe stress and infections of the digestive system.

Deployed military personnel face an elevated chance of experiencing these risk factors and developing FGIDs as a result of their service. For this reason, continued research through the Department of Defense (DOD) Gulf War Illness Research Program (GWIRP) is critical in fiscal year 2013.

In 2010, the Institute of Medicine (IOM) published a report titled "Gulf War and Health, Volume 8; Update on the Health Effects of Serving in the Gulf War", which determined that there is sufficient evidence to associate deployment to the gulf war and FGIDs. According to the report, there have been a large number of FGID cases among gulf war veterans and their symptoms have continued in the years since the war. Based on the report from IOM, the Department of Veterans Affairs (VA) adopted a final rule in August 2011 stating that there is a presumptive service connection between FGIDs and service in the Southwest Asia theater of operations during the Persian Gulf war.

Our military personnel are taught to put duty first, and we have noticed that by the time they reach out to us their condition is incredibly painful or highly disruptive to their life. Not only are these disorders hard to treat, but, in the words of one retired sergeant, these sometimes very embarrassing GI disorders are just as hard to talk about.

In order to better articulate the suffering associated with FGIDs, I would like to share with you the voices of veterans affected by these disorders. This is from Steven in North Carolina, who served in the Persian Gulf theater of operations. "While there and since my return, I have been plagued with a multitude of GI problems, including irritable bowel syndrome (IBS). I suffered nearly constant diarrhea for over 10 years before the IBS was ever diagnosed. None of my GI problems existed prior to my deployment and they simply do not seem to go away afterwards."

Another veteran, Jason, mentioned the prevalence of these conditions. "While speaking with several of my former soldiers, I came to realize that they are experiencing the same signs and symptoms. I am the first one of a group of friends and veterans that is doing research to find out that we are not alone."

PREPARED STATEMENT

The DOD Gulf War Illness Research Program conducts important research on the complex set of chronic symptoms that impact gulf war veterans. Given the conclusions of the IOM report and the report's recommendations for further research on the length between FGIDs and exposures experienced by veterans in the gulf war, we ask that you continue to support the Gulf War Illness Research Program and encourage research into FGIDs through this

program, so that important research on FGIDs among veterans can be conducted.

Thank you for your time and your consideration of this request.

[The statement follows:]

PREPARED STATEMENT OF ELISABETH VINK, PROGRAM ASSISTANT, INTERNATIONAL FOUNDATION FOR FUNCTIONAL GASTROINTESTINAL DISORDERS

Thank you for the opportunity to present the views of the International Foundation for Functional Gastrointestinal Disorders (IFFGD) regarding functional gastrointestinal disorders (FGIDs) among service personnel and veterans. FGIDs are recognized by the Department of Veterans Affairs (VA) as disabling and connected to military service as a part of gulf war illness, and we request that the subcommittee continue support the Department of Defense (DOD) Gulf War Illness Research Program (GWIRP) through the Congressionally Directed Medical Research Program. I am a proud member of a military family, with my father having served 23 years in the U.S. Air Force, and I appreciate the opportunity to present testimony in support of veterans like my dad.

Established in 1991, IFFGD is a patient-driven nonprofit organization dedicated to assisting individuals affected by FGIDs, and providing education and support for patients, healthcare providers, and the public at large. Our mission is to inform and support people affected by painful and debilitating digestive conditions, about which little is understood and few (if any) treatment options exist. The IFFGD also works to advance critical research on functional gastrointestinal (GI) and motility disorders, in order to provide patients with better treatment options, and to eventually find a cure.

FGIDs are disorders in which the movement of the intestines, the sensitivity of the nerves of the intestines, or the way in which the brain controls intestinal function is impaired. People who suffer from FGIDs have no structural abnormality, which makes it difficult to identify their condition using xrays, blood tests, or endoscopies. Instead, FGIDs are typically identified and defined by the collection of symptoms experienced by the patient. For this reason, it is not uncommon for FGID suffers to have unnecessary surgery, medication, and medical devices before receiving a proper diagnosis.

More than two dozen different FGIDs have been identified. Severity ranges from bothersome to disabling and life-altering. The conditions may strike anywhere along the gastrointestinal tract, from nausea and vomiting to altered bowel habit. Examples of FGIDs include irritable bowel syndrome (IBS) and functional dyspepsia. IBS is characterized by abdominal pain and discomfort associated with a change in bowel pattern, such as diarrhea and/or constipation. Symptoms of functional dyspepsia usually include an upset stomach, pain in the belly, and bloating.

FGIDs can be emotionally and physically debilitating. Due to persistent pain and bowel unpredictability, individuals who suffer from these disorders may distance themselves from social events, work, and even may fear leaving their home. Stigma surrounding bowel habits may act as barrier to treatment, as patients are not comfortable discussing their symptoms with doctors.

The onset of a functional GI disorder can be triggered by severe stress and infections of the digestive system. Deployed military personnel face an elevated chance of experiencing these risk factors and developing FGIDs as a result of their service. In April 2010, the Institute of Medicine (IOM) published a report titled "Gulf War and Health, Volume 8: Update on the Health Effects of Serving in the Gulf War", which determined that there is sufficient evidence to associate deployment to the gulf war and FGIDs. According to the report, there have been a large number of FGID cases among gulf war veterans, and their symptoms have continued to be persistent in the years since the war. The IOM report focused on the incidence of GI disorders among veterans and did not attempt to determine causality. However, the report provides compelling evidence linking exposure to enteric pathogens during deployment and the development of FGIDs. The IOM recommended that further research be conducted on this association.

Based on the report from IOM, Department of Veterans Affairs adopted a final rule on August 15, 2011, stating that there is a presumptive service connection between FGIDs and service in the Southwest Asia theater of operations during the Persian Gulf war. This includes conditions like IBS and functional dyspepsia.

At IFFGD we hear from numerous veterans about their difficulties with FGIDs, including conditions such as IBS and cyclic vomiting syndrome. Our military personnel are taught to put duty first, and at IFFGD we have noticed that by the time they reach out to us, their situation is usually pretty bad. Not only are these dis-

orders hard to treat, but in the words of one retired Sergeant, these "sometimes very embarrassing GI disorders" are just as hard to talk about. In order to better articulate the suffering associated with FGIDs, I would like to share with you the voices of veterans affected by these disorders. This is from Stephen in North Carolina:

"I am a Desert Shield/Desert Storm veteran that served in the Persian Gulf theater of operations from August 1990 to March 1991, as the G2 Sergeant Major for the 24th Infantry Division. While there, and since my return, I have been plagued with a multitude of GI problems including IBS, a functional GI problem. I suffered nearly constant diarrhea for over 10 years before the IBS was ever diagnosed. None of my GI problems existed prior to my deployment and they simply do not seem to go away afterwards."

This is from Jason, who contacted us earlier this year:

"I am a disabled Iraq veteran that was deployed during 2003–2005 timeframe with a National Guard unit attached to Active Duty. Since returning from Iraq, I have had issues with my gastrointestinal tract. I have made a few attempts to try to pinpoint the cause of this change in my bodily function to no avail . . . While speaking with several of my former soldiers I came to realize that they are experiencing the same signs and symptoms. I am the first one of a group of friends/vets that is doing research to find out that we are not alone."

The DOD Gulf War Illness Research Program conducts important research on the complex set of chronic symptoms that impact Gulf War Veterans. Given the conclusions of the IOM report and the report's recommendations for further research on the link between FGIDs and exposures experienced by veterans in the Gulf War, we ask that you continue to support the Gulf War Illness Research Program and encourage research into FGIDs through this program so that important research on FGIDs among veterans can be conducted.

Thank you again for the opportunity to address the subcommittee.

Chairman INOUYE. Thank you very much. If this matter is service-connected, I can assure you we're morally bound to do something about it.

Thank you.

Ms. VINK. Thank you, Chairman.

Chairman INOUYE. Our next witness is Mr. Anthony Castaldo, representing the United States Hereditary Angiodema Association.

STATEMENT OF ANTHONY CASTALDO, PRESIDENT, U.S. HEREDITARY ANGIOEDEMA ASSOCIATION

Mr. CASTALDO. Chairman Inouye and Vice Chairman Cochran: I'm delighted to present testimony today on hereditary angioedema (HAE). I am Anthony Castaldo, president of the United States HAE Association, a Honolulu-based nonprofit patient services, research, and advocacy organization that represents more than 4,500 HAE patients.

Now, HAE is a rare, debilitating, and potentially life-threatening genetic condition that occurs in about 1 in 50,000 people. HAE patients experience frequent attacks of intense swelling of various body parts, including the hands, face, feet, throat, and abdomen. Abdominal attacks involve excruciating abdominal pain, nausea, and vomiting. Attacks involving the throat are particularly dangerous because the swelling can progress to the point where the airway closes and causes death by suffocation.

The historical mortality rate for HAE sufferers is well over 30 percent and, tragically, even today HAE patients continue to die from swelling attacks that close the airway. Unfortunately, according to a recent study HAE patients suffer for almost a decade before obtaining an accurate diagnosis, and are therefore often sub-

ject to unnecessary exploratory surgery and ineffective medical procedures.

Now, the swelling experienced by many HAE patients is actually caused by a genetic defect that results in deficient levels of a key blood protein. However, there are still patients in the HAE Association community who do not yet know what causes their swelling. Despite a family history of debilitating and life-threatening swelling attacks, these patients have normal levels of the protein that I mentioned earlier. This important subset of HAE sufferers represent a significant unmet medical need and research is required to identify the genetic and biochemical markers for this form of HAE.

Mr. Chairman and Vice Chairman Cochran, I'd like to share some examples of how HAE has a significant impact on the ability to serve in our country's armed services. Today, right on the island, Hawaiian island of Oahu, there was a remarkable young man, Christian Davis, whose dreams of following his father's footsteps and becoming an Air Force pilot have been dashed because his HAE symptoms prevent him from military service.

Christian, who bravely endures frequent HAE attacks involving his abdomen and throat, loved to visit Hickham Air Force Base and proudly watch his father, Lieutenant Colonel Milton Davis, take off and land Hawaii Air National Guard C–17 cargo planes. With visions of one day serving America by grasping the controls and piloting a C–17, Christian eagerly began the process of applying for military service. It did not take long, however, for this young man's aspirations to be dowsed by the reality that HEA would cause him to be rejected for military service.

My father, who experienced severe swelling attacks, yet served with distinction in the Korean war, chose to endure his excruciating swelling without seeking treatment, so he could continue to serve his country. Of course, in those days HAE had not yet been identified as a discrete disease. Indeed, my dad was so proud to serve as a U.S. military police officer that while in Korea he stopped reporting to the field hospital during swelling attacks, in an attempt to avoid a medical discharge.

PREPARED STATEMENT

Mr. Chairman and Mr. Vice Chairman, on behalf of HEA patients in the United States, including those like Christian Davis who would like to serve his country, and veterans like my dad, who remained on active duty despite suffering from debilitating HAE swelling attacks, I would like to request that the subcommittee continue—that HAE continue to be eligible for the Peer-Reviewed Medical Research Program for fiscal year 2013. There is a critical need for research in understanding all causes of HAE, including currently available treatments, and ultimately finding a cure.

Thank you for inviting me to appear today.

[The statement follows:]

PREPARED STATEMENT OF ANTHONY CASTALDO

Chairman Inouye, Vice Chairman Cochran, and distinguished members of the Defense subcommittee: Thank you for the opportunity to present testimony on Hereditary Angioedema (HAE). I am Anthony Castaldo, president of the United States Hereditary Angeioedema Association (USHAEA) and an HAE patient. USHAEA is a

nonprofit patient advocacy organization founded to provide patient support, educate patients and their families, advance HAE research, and find a cure. Our efforts include providing research funding to scientific investigators to increase the HAE knowledge base and maintaining a patient registry to support groundbreaking research efforts. Today, we would like to request the continued inclusion of HAE in the fiscal year 2013 Peer-Reviewed Medical Research Program (PRMRP) within the Department of Defense (DOD) appropriations bill.

My family has a long history of military service, my grandfather served in the Great War and my father and uncle in Korea; I grew up understanding the sacrifices and dedication of our servicemen and women. I, however, was and am unable to serve my country in the same way because of my condition. There are also a number of other men and women who were prevented from serving in the military due to an HAE diagnosis.

HAE is a rare and potentially life-threatening inherited disease with symptoms of severe, recurring, debilitating attacks of edema (swelling). HAE patients have a defect in the gene that controls a blood protein called C1-inhibitor, so it is also more specifically referred to as C1-inhibitor deficiency. This genetic defect results in production of either inadequate or nonfunctioning C1-inhibitor protein. Because the defective C1-inhibitor does not adequately perform its regulatory function, a biochemical imbalance can occur and produce an unwanted peptide—called bradykinin—that induces the capillaries to release fluids into surrounding tissues, thereby causing swelling.

People with HAE experience attacks of severe swelling that affect various body parts including the hands, feet, face, airway (throat), and intestinal wall. Swelling of the throat is the most life-threatening aspect of HAE, because the airway can close and cause death by suffocation. Studies reveal that more than 50 percent of patients will experience at least one throat attack in their lifetime.

HAE swelling is disfiguring, extremely painful, and debilitating. Attacks of abdominal swelling involve severe and excruciating pain, vomiting, and diarrhea. Because abdominal attacks mimic a surgical emergency, approximately one-third of patients with undiagnosed HAE undergo unnecessary surgery. Untreated, an average HAE attack lasts between 24 and 72 hours, but some attacks may last longer and be accompanied by prolonged fatigue.

The majority of HAE patients experience their first attack during childhood or adolescence. Most attacks occur spontaneously with no apparent reason, but anxiety, stress, minor trauma, medical, surgical, and dental procedures, and illnesses such as colds and flu have been cited as common triggers. ACE inhibitors (a blood pressure control medication) and estrogen-derived medications (birth control pills and hormone replacement drugs) have also been shown to exacerbate HAE attacks.

HAE's genetic defect can be passed on in families. A child has a 50-percent chance of inheriting the disease from a parent with HAE. However, the absence of family history does not rule out the HAE diagnosis; scientists report that as many as 25 percent of HAE cases today result from patients who had a spontaneous mutation of the C1-inhibitor gene at conception. These patients can also pass the defective gene to their offspring. Worldwide, it is estimated that this condition affects between 1 in 10,000 and 1 in 30,000 people.

PEER-REVIEWED MEDICAL RESEARCH PROGRAM

On behalf of the HAE community, including our military families, I would like to thank the subcommittee for recognizing HAE as a condition eligible for study through Peer-Reviewed Medical Research Program (PRMRP) in the committee reports accompanying the fiscal year 2012 DOD appropriations bill. The scientific community showed great interest in the program, responding to the grant announcements with an immense outpouring of proposals. We urge the Congress to maintain HAE's eligibility in the PRMRP in committee reports accompanying the fiscal year 2013 DOD appropriations bill, to help find a cure so the men and women born with HAE can serve their country in the Armed Forces and help their families with the very challenging condition.

Thank you for the opportunity to present the views of the HAE community.

Chairman INOUYE. I thank you very much, Mr. Castaldo. I assure you that we'll look into this matter.

Mr. CASTALDO. Thank you, Sir.

Chairman INOUYE. Thank you.

Our next witness is Lieutenant Colonel Carl Hicks, representing the Pulmonary Hypertension Association.

STATEMENT OF LIEUTENANT COLONEL CARL HICKS, U.S. ARMY (RETIRED), PULMONARY HYPERTENSION ASSOCIATION

Colonel HICKS. Mr. Chairman, first I'd like to acknowledge you as a personal hero. Your actions long ago set an example for bravery and sacrifice, inspiring so many young Americans who would later follow as infantrymen and earn the combat infantryman's badge. Sir, I was one of them, and I'm especially humbled to be in your presence, as any American would be. Thank you.

And thank you for having me here today to speak on behalf of hundreds of thousands of Americans impacted by pulmonary hypertension (PH). On behalf of the PH community, I am here to request that you once again include pulmonary hypertension as a condition eligible for study through the Department of Defense (DOD) Peer-Reviewed Medical Research Program.

I volunteer for a grassroots, patient-centric organization called the Pulmonary Hypertension Association (PHA). With more than 20,000 members and supporters, including more than 250 support groups across the country, PHA now is recognized worldwide. We are dedicated to improving treatment options and finding cures for PH and supporting affected individuals through coordinated research, education, and advocacy activities.

PH is a debilitating and usually fatal condition where blood pressure in the lungs rises to dangerously high levels. In PH patients, the walls of the arteries that take the blood from the side of the heart to the lungs thicken, scar, and constrict, and as a result the right side of the heart has to pump harder to move blood into the lungs, causing it to enlarge and ultimately fail.

Symptoms of PH include shortness of breath, fatigue, chest pain, dizziness, and fainting. The stricken feel, even at rest, as though they are suffocating, because they are. The only way to ultimately survive being stricken with PH is to undergo a lung or a heart-lung transplant.

August 16, 1981, was one of the happiest days of my life. I was a young airborne Ranger infantry captain who had worked his way up from private. I felt pretty tough. Holding my first-born Meaghan in my arms moments after she was born, I looked down into her beautiful little face and vowed these arms would protect her from everything, and there was no doubt that I could.

Fast-forward 13 happy years and our little happy family had grown to three healthy, beautiful Army brats. I had been promoted rapidly, and we were on our way back from Germany to assume the command of the 10th Mountain Division. Life could not have been better.

Days away from leaving, Meaghan, who was a fit, healthy young gymnast of 13, fainted and complained of shortness of breath. Initially misdiagnosed, we were soon at Walter Reed, where I was confident they could solve the problem. After 3 days of testing, an Army doctor asked me to join him around the corner, where he said: "Colonel Hicks, I regret to inform you, but your daughter, Meaghan, has a terminal illness. She has less than a year to live and there is nothing we can do for her."

I was not such a tough warrior any more. Little did they know that Meaghan was a tough warrior, though, and with the combined help and prayers of many she lived another 12 years before declin-

ing precipitously. Finally, the only hope for Meaghan was a dangerous heart and lung transplant, which she fearlessly endured. But there were serious complications. Undaunted, she fought on, never quitting or giving up.

As she once again began to decline, helpless to find ways to comfort her, I offered her an old Ranger tee shirt to wear as she lay in bed. She was so proud that she rallied briefly. Yet, 48 hours later we lost her. I had failed my most important mission, that promise to protect her from everything. She was the bravest person I have ever known.

PREPARED STATEMENT

Distinguished members, while new treatment options have been developed for PH in recent years, they are limited and there remains no cure. For the members of our military and their families who are struggling with PH, the hope for a better quality of life depends on advancements made through biomedical research. It is important to note that research in this area has a potential to yield additional benefits toward the study of America's number one killer, heart disease, as well as other lung illnesses.

Pulmonary hypertension was included as a condition eligible for study through DOD Peer-Reviewed Medical Research Program in 2009. I respectfully request once again that we renew that commitment toward a better tomorrow made through this important research by including pulmonary hypertension as a condition eligible for fiscal year 2013.

Thank you.

[The statement follows:]

PREPARED STATEMENT OF LIEUTENANT COLONEL CARL HICKS

Chairman Inouye, Ranking Member Cochran, and distinguished members of the subcommittee: Thank you for having me here today to speak on behalf of the hundreds of thousands of Americans impacted by pulmonary hypertension (PH). As a military veteran and as a veteran of the ongoing battle against PH, it is my honor to appear before you as a representative of the Pulmonary Hypertension Association (PHA). On behalf of the PH community, I am here to request that you once again include PH as a condition eligible for study through the Department of Defense (DOD) Peer-Reviewed Medical Research Program (PRMRP) as you work to complete fiscal year 2013 Defense appropriations.

PHA has served the PH community for more than 20 years. In 1990, three PH patients found each other with the help of the National Organization for Rare Disorders and shortly thereafter founded PHA. At that time, the condition was largely unknown amongst the general public and within the medical community; there were fewer than 200 diagnosed cases of the disease. Since then, PHA has grown into a nationwide network of more than 20,000 members and supporters, including more than 250 support groups across the country. PHA is dedicated to improving treatment options and finding cures for PH, and supporting affected individuals through coordinated research, education, and advocacy activities. We now have an international presence and reputation around the world for which I am deeply proud.

PH is a debilitating and often fatal condition where the blood pressure in the lungs rises to dangerously high levels. In PH patients, the walls of the arteries that take blood from the right side of the heart to the lungs thicken and constrict. As a result, the right side of the heart has to pump harder to move blood into the lungs, causing it to enlarge and ultimately fail. Symptoms of PH include shortness of breath, fatigue, chest pain, dizziness, and fainting. The only way to ultimately survive being stricken with PH is a lung or heart-lung transplant.

On August 16, 1981, I was a young Airborne Ranger Infantry captain who'd worked his way up from private and felt pretty tough. As I held my firstborn child, Meaghan, in my arms moments after she was born, I looked down into her beautiful little face and knew these arms could protect her from anything, and I lovingly told

her so in front of her beaming mother. Fast forward 13 happy years and our little family had grown to three happy, healthy, beautiful Army brats. I had been promoted multiple times below the zone, and we were on our way back from Europe so I could assume a new command in the 10th Mountain Division. Life couldn't have been better, or so I thought.

Days away from leaving, Meaghan, a super fit healthy gymnast of 13, fainted and complained of shortness of breath. Initially misdiagnosed as are almost all, we eventually ended up at Walter Reed. Two days later a young Army doctor asked me to join him around the corner where he said, "Colonel Hicks, I regret to inform you that your daughter, Meaghan, has a terminal illness, and there is nothing we can do for her. She has less than a year to live at best." I was no longer the tough battle-hardened Ranger that moments before I was.

Little did they know that Meaghan was tough, and combined with the help of a civilian physician, she lived another 12 years before declining precipitously. Finally the only hope was a dangerous heart-lung transplant which she fearlessly endured. But there were complications. Undaunted, she fought on, never quitting or giving up. As she again began to decline and she asked for my Ranger t-shirt to wear. Forty-eight hours later, with all of us around her, she lost her last fight. I had failed my mission and didn't keep that promise to protect from everything, but Meaghan, she never gave up. Rangers both retired and Active Duty came from around the world for her celebration of life, and we did a Ranger "roll-call" for her and stood to salute when she didn't respond. She was the bravest person I ever knew, and she never, ever quit.

Gentlemen, while new treatment options have been developed for PH in recent years, these treatment options are limited and there remains no cure. For the members of our military and their families who are struggling with PH, the hope for a better quality of life depends on advancements made through biomedical research. It is important to note that research in this area has the potential to yield additional benefits towards the study of America's number one killer, heart disease. PH was included as a condition eligible for study through the DOD's Peer-Reviewed Medical Research Program as recently as 2009. I ask that this subcommittee renew the commitment towards a better tomorrow made through this important research by including pulmonary hypertension as a condition eligible for study through the Peer-Reviewed Medical Research Program in fiscal year 2013.

PHA Fiscal Year 2013 DOD Appropriations Recommendations

Peer-Reviewed Medical Research Program (PRMRP):

—Please, once again, include pulmonary hypertension (PH) on the list of conditions deemed eligible for study through the DOD PRMRP as you continue your important work on the fiscal year 2013 Defense appropriations bill.

—In addition, please provide $50 million for PRMRP, which is housed within the DOD Congressionally Directed Medical Research Program, so that this program may continue to advance important research activities focused on a number of conditions.

Thank you for your time and your consideration of this request.

Chairman INOUYE. I thank you very much and thank you for your kind words. We will make certain that this matter is continued.

Colonel HICKS. Thank you, Sir.

Chairman INOUYE. Thank you.

The next group of witnesses: Mr. Neal Thompson of the Interstitial Cystitis Association; Mr. Danny Smith of the Scleroderma Foundation; Ms. Dee Linde, the Dystonia Medical Research Foundation; and Ms. Joy Simha, National Breast Cancer Coalition.

I call upon Mr. Thompson.

STATEMENT OF F. NEAL THOMPSON, TREASURER, BOARD OF DIRECTORS, INTERSTITIAL CYSTITIS ASSOCIATION

Mr. THOMPSON. Thank you. Chairman Inouye, Vice Chairman Cochran, distinguished members of the subcommittee: Thank you for the opportunity to present testimony before you today. My name is Neal Thompson. I'm speaking on behalf of the Interstitial Cystitis Association (ICA). The ICA advocates for interstitial cys-

titis (IC) research, raises awareness, and serves as a center hub for healthcare providers, researchers, and millions of patients with IC.

I'm also a lieutenant colonel in the Virginia Defense Force, which is a voluntary military organization set up to provide support for the Department of Military Affairs, which is the Virginia National Guard and Army Guard.

I was a high-level insurance executive, but my life came to a screeching halt when I got this IC base. I couldn't travel. I couldn't sleep. Fortunately, I was able to get a diagnosis from the Medical College of Virginia, from a doctor there who was also working at the Department of Veterans Affairs (VA) hospital. So that changed my life and I was able to get some treatment.

IC is a chronic condition characterized by recurring pain, pressure, and discomfort of the bladder and pelvic region. It's often associated with urinary frequency and urgency. The cause of IC is still unknown and the diagnosis is made only after excluding other urinary and bladder conditions.

Misdiagnosis is very common, and when healthcare providers are not properly educated about IC patients may suffer for years before receiving an accurate diagnosis, often as long as 5 years. IC is often considered a woman's disease, but, while it is more common in women, scientific evidence shows that all demographic groups are affected by IC. It is estimated that 12 million Americans have IC symptoms.

The effects of IC are damaging to work life, psychological well-being, personal relationships, and general health. The impact on IC quality of life is equally as severe as rheumatoid arthritis and end stage renal disease. IC can cause patients to suffer from sleep dysfunction, high rates of depression, anxiety, sexual dysfunction, and in some cases, suicide.

The burden of IC on our military, the Nation's military members and veterans, is significant. The Urological Disease of America Project conducted between 1999 and 2002 found that approximately 1.4 of all veterans who utilized the Veterans Health Administration (VHA) have been treated for IC. This study also showed a 14-percent increase in IC patients within the VHA over the same period.

The ICA has also heard from many service men and women about their struggles with IC, including a woman who is just currently in field training, who experienced severe pain every time she fired her weapon. Several individuals, such as former Navy Captain Gary Monray, were forced to retire from their military career due to pain and limitations imposed by IC.

IC research through the Department of Defense Peer-Reviewed Medical Research Program remains essential for expanding our knowledge of this painful condition. This program is an indispensable resource for studying emerging areas of IC research, such as prevalence in men, the role of environmental conditions, and development and diagnosis and various treatments.

PREPARED STATEMENT

Senator, I've read your Medal of Honor designation in 1945 and I read the actions taken in Northern Italy. It's chilling just to read that, but at the time I'm sure you knew what was happening and

you knew the cause and you knew what the treatment. What is so insidious about IC is you don't see it externally and we still need more research to find the cure.

On behalf of IC patients, including many veterans, we request IC continue to be eligible for the Peer-Reviewed Medical Research Program for fiscal year 2013.

Thank you for your time and consideration.

[The statement follows:]

PREPARED STATEMENT OF F. NEAL THOMPSON

Chairman Inouye, Vice Chairman Cochran, and distinguished members of the subcommittee: Thank you for the opportunity to present information on interstitial cystitis (IC). I am Neal Thompson, treasurer of the board of directors of the Interstitial Cystitis Association (ICA). ICA provides advocacy, research funding, and education to ensure early diagnosis and optimal care with dignity for people affected by IC. Until the biomedical research community discovers a cure for IC, our primary goal remains the discovery of more efficient and effective treatments to help patients live with the disease.

I am a member of the Virginia Defense Forces, a volunteer military reserve set up to provide back up for the Virginia National Guard. This group, when called to active duty, is trained to secure any Federal and State property left in place in the event of the mobilization of the Virginia National Guard. I was a high-level financial executive, but my life came to a complete stop because of IC. I struggled for many years to get a diagnosis while trying to keep an active travel schedule and meet the demands of a high-level position. The challenges of being diagnosed and finding an effective treatment eventually forced me to leave work due to disability.

IC is a chronic condition characterized by recurring pain, pressure, and discomfort in the bladder and pelvic region. The condition is often associated with urinary frequency and urgency, although this is not a universal symptom. The cause of IC is unknown. Diagnosis is made only after excluding other urinary and bladder conditions, possibly causing 1 or more years of delay between the onset of symptoms and treatment. Men suffering from IC are often misdiagnosed with bladder infections and chronic prostatitis. Women are frequently misdiagnosed with endometriosis, inflammatory bowel disease (IBD), irritable bowel syndrome (IBS), vulvodynia, and fibromyalgia, which commonly co-occur with IC. When healthcare providers are not properly educated about IC, patients may suffer for years before receiving an accurate diagnosis and appropriate treatment.

Although IC is considered a "women's disease", scientific evidence shows that all demographic groups are affected by IC. Women, men, and children of all ages, ethnicities, and socioeconomic backgrounds develop IC, although it is most commonly found in women. It is estimated that as many as 12 million Americans have IC symptoms, more people than Alzheimer's, breast cancer, and autism combined.

The effects of IC are pervasive and insidious, damaging work life, psychological well-being, personal relationships, and general health. The impact of IC on quality of life is equally as severe as rheumatoid arthritis and end-stage renal disease. Health-related quality of life in individuals with IC is worse than in individuals with endometriosis, vulvodynia, and overactive bladder. IC patients have significantly more sleep dysfunction, higher rates of depression, anxiety, and sexual dysfunction.

The burden of IC among our Nation's servicemembers and veterans is significant. The Urologic Diseases in America Project, conducted between 1999 and 2002, found that approximately 1.4 percent of all veterans utilizing the Veterans Health Administration (VHA) had been treated for IC. This study also showed a 14-percent increase in IC patients within VHA over the same period.

Navy Captain Gary Mowrey (Retired) was forced to cut his naval career short as a result of IC. Captain Mowrey was in the Navy for 25 years and has served as commander of the VAQ133 Squadron, operations officer on the USS *Dwight D. Eisenhower*, chief of the Enlisted Performance Division in the Bureau of Naval Personnel, and earned a Southwest Asia service medal with two stars for his service in Operation Desert Storm. In 1994, he began to experience significant pain, could not always make it to the restroom, and was not even able to sit through normal meetings. After months of unsuccessful antibiotic treatments for urinary tract infections, Captain Mowrey was diagnosed with IC, and retired due to the pain and limitations imposed by IC. He then attempted to teach high school math, but had to

retire from this position as well due to the pain and frequent urination associated with his IC.

Although IC research is currently conducted through a number of Federal entities, including the National Institutes of Health and the Centers for Disease Control and Prevention (CDC), the DOD's Peer-Reviewed Medical Research Program (PRMRP) remains essential. The PRMRP is an indispensable resource for studying emerging areas in IC research, such as prevalence in men, the role of environmental conditions such as diet in development and diagnosis, barriers to treatment, and IC awareness within the medical military community. Specifically, IC education and awareness among military medical professionals takes on heightened importance, as the President's fiscal year 2013 budget request did not include renewed funding for the CDC's IC Education and Awareness Program.

On behalf of the IC community, including our veterans, I would like to thank the subcommittee for recognizing IC as a condition eligible for study through the DOD's PRMRP in the committee reports accompanying the fiscal years 2010, 2011, and 2012 DOD appropriations bills. The scientific community showed great interest in IC research through this program. We urge the Congress to maintain IC's eligibility in the PRMRP in committee report accompanying the fiscal year 2013 DOD appropriations bill, as the number of current military members, family members, and veterans affected by IC is increasing.

Chairman INOUYE. Sir, I can assure you that we'll do our best to maintain the eligibility of IC patients. Thank you very much.

Now may I call upon Mr. Danny L. Smith.

STATEMENT OF DANNY L. SMITH, U.S. ARMY (RETIRED), SCLERODERMA FOUNDATION

Mr. SMITH. Chairman Inouye, Ranking Member Cochran, and distinguished members of the Defense subcommittee: Thank you for the opportunity to talk to you today about scleroderma. I'm Danny Smith from Saginaw, Michigan. I have been a scleroderma patient since 1999. Before my battle with scleroderma started, I was in the U.S. Army—Hawaii 1965 and Vietnam 1966.

The word "scleroderma" literally means "hard skin", which is one of the most manifestations of the disease. The cause of scleroderma is unknown, although it involves an overproduction of collagen. This can cause the hardening of the internal organs. Serious complications of the disease include pain, skin ulcers, pulmonary hypertension, disorders of the digestive system, and others.

For me, it began with my hands. They turned blue, stiffened up. I could not move my fingers. I went to my doctor. She sent me to a rheumatologist. They sent me to a rheumatologist. He diagnosed me with scleroderma eventually. I had just gotten a new job working for the United Auto Workers (UAW), and I didn't get to sit in that chair because they put me on disability right away and I never got there.

But as time went on, the skin on my arms and my hands got tighter. I could not even close my hands. A few months later, I began an experimental treatment called cytoxin infusion for scleroderma, taken once a month for 2 years. My scleroderma began impacting my right lung. Breathing became difficult. I was losing weight and coloration of my skin was changing.

The rheumatologist referred me to a lung specialist at the University of Michigan. The lung specialist said that my right lung was not fluctuating. It was beginning to harden and turn to stone, which is a term used in scleroderma. After many tests, counseling on risk, I decided to go ahead with the lung transplant. On September 20, 2004, at 11 p.m., I got a phone call that a lung was

available. I was on the operating table the next morning at 7:30 a.m.

PREPARED STATEMENT

As I said before, the exact cause of scleroderma is not known. However, it is suspected that an unknown inciting event can trigger autoimmune reactions. Additionally, toxic agents soldiers may be exposed to on a battlefield have often proved to cause lung injury and fibrosis. The successful completion of studies being done by DOD will bring us much closer to being able to treat scleroderma, lung disease, and other diseases involving lung injury and fibrosis to human patients. This is very important because there are currently no effective FDA-approved treatments for these diseases.

On behalf of scleroderma patients, we request scleroderma continue to be eligible for the Peer-Reviewed Medical Research Program for fiscal year 2013.

Thank you very much.

[The statement follows:]

PREPARED STATEMENT OF DANNY L. SMITH

Chairman Inouye, Ranking Member Cochran, and distinguished members of the subcommittee: As a military veteran, it is my honor to appear before you as a representative of the Scleroderma Foundation and on behalf of those living with scleroderma. My name is Danny L. Smith. I live in Saginaw, Michigan and I was in the U.S. Army from September 1964 until September 1967. I was discharged at Fort Lewis, Washington and was stationed in Hawaii in 1965 and Vietnam in 1966 at Cu Chi. I was diagnosed with scleroderma in 1999. I also have had lupus since the mid-1970s. I am here to request that you continue to include scleroderma as a condition eligible for study through the Department of Defense's (DOD) Peer-Reviewed Medical Research Program (PRMRP) as you work to complete fiscal year 2013 Defense appropriations.

The Scleroderma Foundation is a national organization for people with scleroderma and their families and friends. The Foundation's mission is threefold:

—support to help patients and their families cope with scleroderma through mutual support programs, peer counseling, physician referrals, and educational information;

—education to promote public awareness and education through patient and health professional seminars, literature, and publicity campaigns; and

—research to stimulate and support research to improve treatment and ultimately find the cause of and cure for scleroderma and related diseases.

Systemic sclerosis (scleroderma) is a chronic autoimmune disorder marked by early skin lesions and the progressive tissue fibrosis. More than skin deep, this thickening and hardening of connective tissue affects the blood capillaries, the gastrointestinal tract, the lungs, and the heart. In scleroderma patients, fibrosis frequently leads to organ dysfunction, serious illness, and death. Researchers have yet to determine the underlying cause of this disfiguring, debilitating condition or find an effective antifibrotic remedy. Scleroderma impacts approximately 300,000 Americans; 80 percent of whom are women diagnosed during their child-bearing years. Scleroderma also has a highly disproportionate impact on Native American, African-American, and Hispanic populations. These groups tend to exhibit more rapidly progressing and severe cases of the disease. Scleroderma lung disease is categorized as an interstitial lung disease (ILD). ILD refers to a broad category of lung diseases, of which scleroderma is one among nearly 150 conditions, marked by fibrosis or scarring of the lungs. The net result of the fibrosis is ineffective respiration or difficulty breathing. Lung fibrosis occurs in nearly all patients with systemic sclerosis and for reasons that are not clear, severe lung scarring is seen more frequently in men and in African-American scleroderma patients. I was one of these men. Lung disease is the number one cause of death in scleroderma patients.

It began with trouble with my hands at work. They were turning blue and I could not flex them. I went to my family doctor and she referred me to a rheumatologist who subsequently diagnosed me with Raynaud's (the blue color) and scleroderma.

As time went on the skin was getting tighter on my arms and so tight on my hands that I could not even close them. The doctor started me on an exercise program for my arms and hands. A few months later I began an experimental treatment, Cytoxin Infusion, for the scleroderma, taken once a month. I was on it for 2 years. After 2 years, my scleroderma began impacting my right lung. Breathing became difficult, I was losing weight, and the coloration of my skin was changing. The rheumatologist then referred me to a lung specialist at the University of Michigan. The lung specialist said that my right lung was not fluctuating and was beginning to harden or turn to stone—a term used with scleroderma.

When I inquired about a transplant I was tested and counseled by multiple doctors because the operation would be experimental. There were considerable risks. I was finally put on the transplant list. On September 20, 2004, I got a phone call at 11 p.m. that a lung was available. They said I needed to get to Ann Arbor as quickly as possible. When I got there they checked to make sure I was healthy enough for the operation and ran tests for infection. I was on the operating table the next morning, September 21, at 7:30 a.m. I was in the hospital for a week. Having become so weak being on oxygen for 2 years, I also required extensive physical therapy. Since the operation I have been doing well. The lung is still functioning as well today as the day I received it.

Since my operation I have joined a Scleroderma Foundation support group and found out there is so much we don't know about scleroderma. We all differ in our degrees of the illness. I have learned that none of us are the same or have the same outcomes. For example, I knew a young lady, 17 years old, who had scleroderma. Her one wish was to go to Disney World. A trip was arranged for her and her family. She was not doing well but wanted to go anyway. She made it to Florida and to the hotel but then needed to go to the hospital. She passed away the next day without getting to see Disney World. The doctors here in Saginaw used some of the treatments on her that were used on me. The treatments worked for me but not for her.

As I stated before, I am a veteran of the United States Army and a Vietnam Vet. Scleroderma research is of utmost importance to the military. The exact cause of scleroderma is not known; however, it is suspected that an unknown inciting event triggers injury, probably to cells lining the blood vessels. There are also changes in the body's immune system that cause the immune cells to react to body components including the connective tissue. A major consequence of these so-called "autoimmune reactions" is stimulation of fibroblasts (cells that make collagen and other connective tissue components). The net result is excessive accumulation of collagen and other connective tissue components in parts of the body such as skin, lungs, and walls of the arteries. A veteran's immune system disability may be related to his in-service chemical exposure. Systemic sclerosis and systemic lupus have been reported in patients exposed to TCE.

Additionally, toxic agents soldiers may be exposed to on the battlefield have also proved to cause lung injury/fibrosis. The successful completion of studies will bring us much closer to being able to treat scleroderma lung disease and other diseases involving lung injury/fibrosis in human patients. This is of the utmost urgency because there are currently no effective, U.S. Food and Drug Administration-approved treatments for these diseases.

On behalf of the scleroderma community, including our veterans, I would like to thank the subcommittee for recognizing scleroderma as a condition eligible for study through the DOD's PRMRP in the committee reports accompanying the fiscal years 2010, 2011, and 2012 DOD appropriations bills. The scientific community showed great interest in the program, responding to the grant announcements with an immense outpouring of proposals. We urge the Congress to maintain scleroderma's eligibility in the PRMRP.

Chairman INOUYE. We'll do our best to make certain that it's eligible for research.

Thank you very much, Sir.

Our next witness is Ms. Dee Linde, representing the Dystonia Medical Research Foundation.

STATEMENT OF DEE LINDE, PATIENT ADVOCATE, DYSTONIA ADVOCACY NETWORK

Ms. LINDE. Mr. Chairman, Mr. Vice Chairman: Thank you for the opportunity to testify here today. My name is Dee Linde and I'm a dystonia patient and volunteer with the Dystonia Advocacy

Network (DAN). As a veteran and former Navy petty officer, I am honored to testify before this subcommittee.

The DAN is comprised of five dystonia patient groups and works to advance dystonia research, increase dystonia awareness, and provide support for dystonia patients. Dystonia is a rare neurological movement disorder that causes muscles to contract and spasm involuntarily. Dystonia is a chronic disorder whose symptoms vary in degrees of frequency, intensity, disability, and pain. Dystonia can be generalized or focal. Generalized dystonia affects all major muscle groups, resulting in twisting, repetitive movements, and abnormal postures. Focal dystonia affects a specific part of the body, such as the legs, arms, eyelids, or vocal cords.

Dystonia can be hereditary or caused by trauma, and it affects approximately 300,000 persons in the United States. At this time there is no cure for dystonia and treatment is highly individualized. Patients frequently rely on invasive therapies.

In 1995, after my Navy career, I started feeling symptoms from what would later be diagnosed as tardive dystonia, which is medication-induced dystonia. The symptoms started as an uncontrollable shivering sensation. Over the next 2 years, the symptoms continued to worsen and I started feeling like I was being squeezed in a vise. My diaphragm was constricted and I couldn't breathe. I also had blepharospasm, a form of dystonia that forcibly shut my eyes, leaving me functionally blind even though there was nothing wrong with my vision.

My dystonia affected my entire upper body and for years my spasms didn't allow me to sit in a chair or sleep safely in bed with my husband. I spent those years having to sleep and even eat on the floor. I was also forced to give up my private practice as a psychotherapist.

In 2000, I underwent surgery to receive deep brain stimulation (DBS). The neurosurgeon implanted leads into my brain that emit constant electrical pulses which interrupt the bad signals and help control my symptoms. Thanks to DBS, I have gone from being completely nonfunctional to having the ability to walk and to move like a healthy individual and I am now almost completely symptom-free. But DBS is not a cure.

The Dystonia Medical Research Foundation (DMRF) has received reports that the incidence of dystonia in the United States has noticeably increased since our military forces were deployed to Iraq and Afghanistan. An article in Military Medicine titled "Post-Traumatic Shoulder Dystonia in an Active Duty Soldier" stated that, "Dystonia after minor trauma can be as crippling as a penetrating wound, with disability that renders the soldier unable to perform his duties."

Awareness of this disorder is essential to avoid mislabeling and possibly mistreating a true neurological disease.

In addition, a study published this month in "Science Translational Medicine" found that blast exposures can cause structural problems in the brain. We believe these structural problems will lead to increased dystonia.

The Department of Defense Peer-Reviewed Medical Research Program is critical to developing a better understanding of the mechanisms connecting trauma and dystonia.

PREPARED STATEMENT

The dystonia community would like to thank the subcommittee for adding dystonia to the list of conditions eligible for study under this program since fiscal year 2010. We're excited to report that dystonia researchers have competed successfully within the peer-reviewed system every year thus far. We urge the subcommittee to maintain dystonia as an eligible condition in the Defense Peer-Reviewed Medical Research Program in fiscal year 2013.

Thank you again for your time and interest.

[The statement follows:]

PREPARED STATEMENT OF DEE LINDE

Mr. Chairman and members of the Senate Department of Defense Appropriations subcommittee, thank you for the opportunity to testify today. My name is Dee Linde, and I am a dystonia patient and volunteer with the Dystonia Advocacy Network (DAN). I am also a former Navy servicemember, and I am honored to testify before this subcommittee. The DAN is comprised of five dystonia patient groups working collaboratively to meet the needs of those affected:

—the Benign Essential Blepharospasm Research Foundation (BEBRF);
—the Dystonia Medical Research Foundation (DMRF);
—the National Spasmodic Dysphonia Association (NSDA);
—the National Spasmodic Torticollis Association (NSTA); and
—ST/Dystonia, Inc.

The DAN works to advance dystonia research, increase dystonia awareness, and provide support for those living with the disorder. On behalf of the dystonia community, I am here to request that you include dystonia as a condition eligible for study through the Peer-Reviewed Medical Research Program as you work to complete fiscal year 2013 Department of Defense appropriations.

Dystonia is a rare neurological movement disorder that causes muscles to contract and spasm involuntarily. It is a chronic disorder whose symptoms vary in degrees of frequency, intensity, disability, and pain. Dystonia can be generalized or focal. Generalized dystonia affects all major muscle groups, resulting in twisting repetitive movements and abnormal postures. Focal dystonia affects a specific part of the body such as the legs, arms, hands, eyelids, or vocal chords. Dystonia can be hereditary or caused by trauma such as a car crash or a blast exposure as experienced by military personnel. At this time, there is no cure for dystonia and treatment is highly individualized. Patients frequently rely on invasive therapies like botulinum toxin injections or deep brain stimulation (DBS) to help manage their symptoms.

In 1995, after my Navy career, I started feeling symptoms for what would later be diagnosed as tardive dystonia, which is medication-induced dystonia. The symptoms started as an uncontrollable shivering sensation that often prompted people to ask me if I was cold. Over the next 2 years, the symptoms continued to worsen, and I started feeling like I was being squeezed: my diaphragm was constricted and I couldn't breathe. I also had belpharospasm which meant that my eyes would shut forcibly and uncontrollably, leaving me functionally blind even though there was nothing wrong with my vision.

The tardive dystonia affected my entire upper body and for years my spasms didn't allow me to sit in a chair, or sleep safely in the bed with my husband. As a family joke, my mother made my husband a nose guard to wear because I kept hitting him during the night. We made light of the situation when we could, but I was facing much hardship and loneliness. I spent those years having to sleep and even eat on the floor. Before I developed dystonia, I had my own private practice as a licensed psychotherapist which I had to give up as a result of my spasms.

Because I have other service-connected disabilities and am considered 100-percent unemployable, I receive care at the Veterans hospital in Portland, Oregon. In 2000, I underwent surgery to receive DBS. The surgeons implanted leads into my basil ganglia, the part of the brain that controls movement. The DBS therapy delivers constant electrical stimulation that interrupts the bad signals and helps control the involuntary movements. Thanks to DBS, I have gone from being completely nonfunctional, to having the ability to walk and to move like a healthy individual. I am happy to say that I am now almost completely symptom free. Many dystonia patients who undergo DBS do not experience the positive results on the scale that I have, and some undergo brain surgery only to find that the DBS has no effect. Moreover, DBS is a treatment—not a cure.

The DAN has received reports that the incidence of dystonia in the United States has noticeably increased since our military forces were deployed to Iraq and Afghanistan. This recent increase is widely considered to be the result of a well-documented link between traumatic injuries and the onset of dystonia. A June 2006 article in "Military Medicine" entitled "Post-Traumatic Shoulder Dystonia in an Active Duty Soldier" reported on dystonia experienced by military personnel and concluded the following:

"Dystonia after minor trauma can be as crippling as a penetrating wound, with disability that renders the soldier unable to perform his duties . . . awareness of this disorder [dystonia] is essential to avoid mislabeling, and possibly mistreating, a true neurological disease."

More recently, a study published in the May 16, 2012 issue of "Science Translational Medicine" led by Dr. Lee E. Goldstein of Boston University's School of Medicine found that blast exposures can cause structural problems in the brain that we believe will lead to increased dystonia. As military personnel remain deployed for longer periods, we can expect dystonia prevalence in military and veterans populations to continue to rise.

Although Federal dystonia research is conducted through a number of medical and scientific agencies, the Department of Defense (DOD) Peer-Reviewed Medical Research Program remains the most essential program studying dystonia in military and veteran populations. This program is critical to developing a better understanding of the mechanisms connecting trauma and dystonia. For the past 2 years, I have been a consumer reviewer on this panel. The DAN would like to thank the subcommittee for adding dystonia to the list of conditions eligible for study under the DOD Peer-Reviewed Medical Research Program in the fiscal year 2010, fiscal year 2011, and fiscal year 2012 Defense Appropriation bills. The DAN is excited to report that dystonia researchers have competed successfully within the peer-reviewed system every year which underscores the important nature of their work. We urge the subcommittee to maintain dystonia as a condition eligible for study through the Peer-Reviewed Medical Research Program in fiscal year 2013.

Thank you again for allowing me the opportunity to address the subcommittee today. I hope you will continue to include dystonia as a condition eligible for study under the DOD Peer-Reviewed Medical Research Program.

DAN Fiscal Year 2013 Defense Appropriations Recommendations

Peer-Reviewed Medical Research Program (PRMRP):

—Include "dystonia" as a condition eligible for study through the PRMRP.

—Provide $50 million for PRMRP, which is housed within the Congressionally Directed Medical Research Program.

Chairman INOUYE. If this matter is service-connected, I can assure you that we'll do our best to make certain your organization continues its research.

Ms. LINDE. Thank you.

Chairman INOUYE. Thank you.

Our next witness is Ms. Joy Simha, representing the National Breast Cancer Coalition.

STATEMENT OF JOY SIMHA, MEMBER, BOARD OF DIRECTORS, NATIONAL BREAST CANCER COALITION

Ms. SIMHA. Thank you very much. I am Joy Simha, an 18-year breast cancer survivor, co-founder of the Young Survival Coalition and a member of the board of directors of the National Breast Cancer Coalition, which is an organization made up of hundreds of grassroots organizations from across the country.

Chairman Inouye, Ranking Member Cochran, members of the subcommittee: We thank you for your longstanding support for the Department of Defense Peer-Reviewed Breast Cancer Research Program (BCRP). You know the importance of this program to women and their families both within and outside the military across the country, to the scientific and healthcare communities, and to the Department of Defense, because much of the progress

that has been made in the fight against breast cancer is due to your investment in this important program.

The vision of the Department of Defense Peer-Reviewed BCRP is to eradicate breast cancer by funding innovative, high-impact research through the unique partnership of the Congress, the Army, scientists, and consumers.

The Department of the Army must be applauded for overseeing this unique program. It's established itself as a model medical research program, respected throughout the cancer and broader medical communities for its innovative, transparent, and accountable approach. This program is incredibly streamlined. The flexibility of the program has allowed the Army to administer it with unparalleled efficiency and effectiveness. It is lauded worldwide and others try to emulate the program.

Its specific focus on breast cancer allows it to rapidly support innovative proposals that reflect the most recent discoveries in the field. It is responsive not just to the scientific community, but also to the public. The pioneering research performed through the program and the unique vision it maintains have the potential to benefit not just breast cancer, but all cancers, as well as other diseases. Biomedical research is literally being transformed by the Department of Defense BCRP, 90 percent of the funds appropriated go to research.

Advocates bring a necessary perspective to the table, ensuring that the science funded by the program is not only meritorious, but also relevant to the women whose lives are affected by this disease.

You may remember Karen Moss, a retired Air Force Lieutenant Colonel who served almost 21 years on active duty and she chaired the integration panel. Karen passed away in September 2008. She was committed to making a difference and ensuring that the voices of consumer advocates were heard by the scientific community, challenging scientists to always think differently.

Her legacy reminds us that breast cancer is not just a struggle for scientists; it's a disease of the people. She chaired the integration panel the year that she died. The consumers who sit alongside the scientists at the vision-setting peer review and programmatic review stages of the BCRP are there to ensure that no one forgets the women who have died from this disease and to keep the program focused on its vision.

PREPARED STATEMENT

This is research that will help us win a very real and devastating war against a very vicious enemy. You and your subcommittee have shown great determination and leadership in funding the DOD Peer-Reviewed BCRP at a level that has brought us closer to ending this disease. I am hopeful that you will continue that determination and leadership.

Thank you again for the opportunity to submit testimony and represent all the people across this country who care about ending this disease. Thank you.

[The statement follows:]

PREPARED STATEMENT OF JOY SIMHA

Thank you, Mr. Chairman and members of the Appropriations Subcommittee on the Department of Defense, for the opportunity to submit testimony today about a program that has made a significant difference in the lives of women and their families.

I am Joy Simha, an 18-year breast cancer survivor, communications consultant, a wife and mother, co-founder of The Young Survival Coalition, and a member of the board of directors of the National Breast Cancer Coalition (NBCC). I am also a member of the Integration Panel of the Department of Defense (DOD) Breast Cancer Research Program (BCRP). My testimony represents the hundreds of member organizations and thousands of individual members of the NBCC. NBCC is a grassroots organization dedicated to ending breast cancer through action and advocacy. Since its founding in 1991, NBCC has been guided by three primary goals:

—to increase Federal funding for breast cancer research and collaborate with the scientific community to implement new models of research;
—improve access to high-quality healthcare and breast cancer clinical trials for all women; and
—expand the influence of breast cancer advocates wherever breast cancer decisions are made.

In September 2010, in order to change the conversation about breast cancer and restore the sense of urgency in the fight to end the disease, NBCC launched Breast Cancer Deadline 2020®—a deadline to end breast cancer by January 1, 2020.

Chairman Inouye and Ranking Member Cochran, we appreciate your longstanding support for the Department of Defense (DOD) Peer-Reviewed Breast Cancer Research Program. As you know, this program was born from a powerful grassroots effort led by NBCC, and has become a unique partnership among consumers, scientists, Members of Congress and the military. You and your subcommittee have shown great determination and leadership in funding DOD Peer-Reviewed BCRP at a level that has brought us closer to ending this disease. I am hopeful that you and your subcommittee will continue that determination and leadership.

I know you recognize the importance of this program to women and their families across the country, to the scientific and healthcare communities and to DOD. Much of the progress that has been made in the fight against breast cancer is due to the Appropriations Committee's investment in breast cancer research through the DOD BCRP. To support this progress moving forward, we ask that you support a $150 million appropriation for fiscal year 2013. In order to continue the success of the program, you must ensure that it maintains its integrity and separate identity, in addition to this funding. This is important not just for breast cancer, but for all biomedical research that has benefited from this incredible Government program.

VISION AND MISSION

The vision of DOD Peer-Reviewed BCRP is to "eradicate breast cancer by funding innovative, high-impact research through a partnership of scientists and consumers". The meaningful and unprecedented partnership of scientists and consumers has been the foundation of this model program from the very beginning. It is important to understand this collaboration:

—consumers and scientists working side-by-side;
—asking the difficult questions;
—bringing the vision of the program to life;
—challenging researchers and the public to do what is needed; and
—then overseeing the process every step of the way to make certain it works.

This unique collaboration is successful: every year researchers submit proposals that reach the highest level asked of them by the program and every year we make progress for women and men everywhere.

And it owes its success to the dedication of the U.S. Army and their belief and support of this mission. And of course, to you. It is these integrated efforts that make this program unique.

The Department of the Army must be applauded for overseeing the DOD BCRP which has established itself as a model medical research program, respected throughout the cancer and broader medical community for its innovative, transparent, and accountable approach. This program is incredibly streamlined. The flexibility of the program has allowed the Army to administer it with unparalleled efficiency and effectiveness. Because there is little bureaucracy, the program is able to respond quickly to what is currently happening in the research community. Its specific focus on breast cancer allows it to rapidly support innovative proposals that reflect the most recent discoveries in the field. It is responsive, not just to the scientific community, but also to the public. The pioneering research performed

through the program and the unique vision it maintains have the potential to benefit not just breast cancer, but all cancers as well as other diseases. Biomedical research is literally being transformed by the DOD BCRP.

CONSUMER PARTICIPATION

Advocates bring a necessary perspective to the table, ensuring that the science funded by this program is not only meritorious, but that it is also meaningful and will make a difference in people's lives. The consumer advocates bring accountability and transparency to the process. They are trained in science and advocacy and work with scientists willing to challenge the status quo to ensure that the science funded by the program fills important gaps not already being addressed by other funding agencies. Since 1992, more than 700 breast cancer survivors have served on the BCRP review panels.

Four years ago, Karin Noss, a retired Air Force Lieutenant Colonel who served almost 21 years on active duty as a missile launch officer and intelligence analyst, chaired the Integration Panel. Karin was 36 years old when she discovered a lump that was misdiagnosed by mammography and clinical exam; just more than 1 year later, however, she was diagnosed with Stage II breast cancer. Her diagnosis inspired her to become knowledgeable about her disease, and as a trained consumer advocate she began participating as a consumer reviewer on BCRP scientific peer-review panels in 1997. Karin was committed to making a difference and ensuring that the voice of consumer advocates was heard by the scientific community, challenging scientists to think differently.

Karin worked tirelessly in support of the BCRP through the pain and fatigue of metastatic breast cancer. She died of the disease in September 2008. Just a few weeks before her passing, Karin served what would be her final role for the BCRP when she chaired the fiscal year 2008 Vision Setting Meeting, an important milestone at which the program determines which award mechanisms to offer in order to move research forward. She said that:

"Consumer involvement in all facets of the BCRP has proven crucial to ensuring not only that the best and most innovative science gets funded, but that the science will really make a difference to those of us living with the disease."

Karin demonstrated an amazing strength, determination, and commitment to eradicating breast cancer. She was an optimist, determined to make things better for women with breast cancer whose legacy reminds us that breast cancer is not just a struggle for scientists; it is a disease of the people. The consumers who sit alongside the scientists at the vision setting, peer review and programmatic review stages of the BCRP are there to ensure that no one forgets the women who have died from this disease and to keep the program focused on its vision.

For many consumers, participation in the program is "life changing" because of their ability to be involved in the process of finding answers to this disease. In the words of one advocate:

"Participating in the peer review and programmatic review has been an incredible experience. Working side by side with the scientists, challenging the status quo and sharing excitement about new research ideas . . . it is a breast cancer survivor's opportunity to make a meaningful difference. I will be forever grateful to the advocates who imagined this novel paradigm for research and continue to develop new approaches to eradicate breast cancer in my granddaughters' lifetime."——Marlene McCarthy, three-time breast cancer "thriver", Rhode Island Breast Cancer Coalition.

Scientists who participate in the Program agree that working with the advocates has changed the way they do science. Let me quote Greg Hannon, the fiscal year 2010 DOD BCRP Integration Panel Chair:

"The most important aspect of being a part of the BCRP, for me, has been the interaction with consumer advocates. They have currently affected the way that I think about breast cancer, but they have also impacted the way that I do science more generally. They are a constant reminder that our goal should be to impact people's lives."——Greg Hannon, Ph.D., Cold Spring Harbor Laboratory.

UNIQUE STRUCTURE

The DOD BCRP uses a two-tiered review process for proposal evaluation, with both steps including scientists as well as consumers. The first tier is scientific peer review in which proposals are weighed against established criteria for determining scientific merit. The second tier is programmatic review conducted by the Integration Panel (composed of scientists and consumers) that compares submissions across

areas and recommends proposals for funding based on scientific merit, portfolio balance, and relevance to program goals.

Scientific reviewers and other professionals participating in both the peer review and the programmatic review process are selected for their subject matter expertise. Consumer participants are recommended by an organization and chosen on the basis of their experience, training, and recommendations.

The BCRP has the strictest conflict of interest policy of any research funding program or institute. This policy has served it well through the years. Its method for choosing peer and programmatic review panels has produced a model that has been replicated by funding entities around the world.

It is important to note that the Integration Panel that designs this program has a strategic plan for how best to spend the funds appropriated. This plan is based on the state of the science—both what scientists and consumers know now and the gaps in our knowledge—as well as the needs of the public. While this plan is mission driven, and helps ensure that the science keeps to that mission of eradicating breast cancer in mind, it does not restrict scientific freedom, creativity, or innovation. The Integration Panel carefully allocates these resources, but it does not predetermine the specific research areas to be addressed.

DISTINCTIVE FUNDING OPPORTUNITIES

The DOD BCRP research portfolio includes many different types of projects, including support for innovative individuals and ideas, impact on translating research from the bench to the bedside, and training of breast cancer researchers.

Innovation

The Innovative Developmental and Exploratory Awards (IDEA) grants of the DOD program have been critical in the effort to respond to new discoveries and to encourage and support innovative, risk-taking research. Concept awards support funding even earlier in the process of discovery. These grants have been instrumental in the development of promising breast cancer research by allowing scientists to explore beyond the realm of traditional research and unleash incredible new ideas. For example, in fiscal year 2009, Dr. Seongbong Jo of the University of Mississippi was granted a concept award to develop a multifunctional nanoparticle that can selectively recognize breast cancer and specifically inhibit the growth of cancer cells, while minimally affecting normal cells. This has the potential to significantly improve the delivery of breast cancer chemotherapy, increase its efficiency, and contribute to the reduction of breast cancer mortality rates.

IDEA and concept grants are uniquely designed to dramatically advance our knowledge in areas that offer the greatest potential. In fiscal year 2006, Dr. Gertraud Maskarinec of the University of Hawaii received a synergistic IDEA grant to study effectiveness of the Dual Energy Xray Absorptiometry (DXA) as a method to evaluate breast cancer risks in women and young girls. Such a method, which could possibly be used to prevent breast cancer during adulthood, is currently not available because the risk of xray-based mammograms is considered too high in that age group. Such grants are precisely the types that rarely receive funding through more traditional programs such as the National Institutes of Health and private research programs. They, therefore, complement and do not duplicate other Federal funding programs. This is true of other DOD award mechanisms as well.

Innovator awards invest in world renowned, outstanding individuals rather than projects, by providing funding and freedom to pursue highly creative, potentially groundbreaking research that could ultimately accelerate the eradication of breast cancer. Dr. Dennis Slamon of the University of California, Los Angeles was granted an innovator award in fiscal year 2010 to develop new insights that will result in the development of novel treatment initiatives for all of the current therapeutic subtypes of breast cancer. This research builds upon the past gains in understanding of the molecular diversity of human breast cancer which has led treatment away from the "one-size-fits-all" therapeutic approaches, and the success of existing treatments of specific breast cancer subtypes.

The Era of Hope Scholar Award supports the next generation of leaders in breast cancer research, by identifying the best and brightest scientists early in their careers and giving them the necessary resources to pursue a highly innovative vision of ending breast cancer. Dr. Stuart S. Martin of the University of Maryland, Baltimore received a fiscal year 2010 Era of Hope Scholar Award to build an international consortium to define a molecular framework that governs the mechanical properties of a certain type of tumor cell which, because of its shape, poses a greater metastatic risk than other cells.

One of the most promising outcomes of research funded by the DOD BCRP was the development of the first monoclonal antibody targeted therapy that prolongs the

lives of women with a particularly aggressive type of advanced breast cancer. Researchers found that over-expression of HER–2/neu in breast cancer cells results in very aggressive biologic behavior. The same researchers demonstrated that an antibody directed against HER–2/neu could slow the growth of the cancer cells that over-expressed the gene. This research, which led to the development of the targeted therapy, Herceptin, was made possible in part by a DOD BCRP-funded infrastructure grant. Other researchers funded by the DOD BCRP are identifying similar targets that are involved in the initiation and progression of cancer.

These are just a few examples of innovative funding opportunities at the DOD BCRP that are filling gaps in breast cancer research.

Translational Research

The DOD BCRP also focuses on moving research from the bench to the bedside. DOD BCRP awards are designed to fill niches that are not addressed by other Federal agencies. The BCRP considers translational research to be the process by which the application of well-founded laboratory or other pre-clinical insight results in a clinical trial. To enhance this critical area of research, several research opportunities have been offered. Clinical Translational Research Awards have been awarded for investigator-initiated projects that involve a clinical trial within the lifetime of the award. The BCRP has expanded its emphasis on translational research by also offering five different types of awards that support work at the critical juncture between laboratory research and bedside applications.

The Multi Team Award mechanism brings together the world's most highly qualified individuals and institutions to address a major overarching question in breast cancer research that could make a significant contribution towards the eradication of breast cancer. Many of these Teams are working on questions that will translate into direct clinical applications. These Teams include the expertise of basic, epidemiology, and clinical researchers, as well as consumer advocates.

Training

The DOD BCRP is also cognizant of the need to invest in tomorrow's breast cancer researchers. Erin McCoy of the University of Alabama, Birmingham received a fiscal year 2010 Predoctoral Traineeship Award for work on the potential role a certain protein, CD68, plays in breast cancer cells attaching themselves to bone which allows metastatic growth to take place. The bone is the most common site for breast cancer metastasis. In fiscal year 2011, Dr. Julie O'Neal of the University of Louisville received a Postdoctoral Fellowship Award to study breast cancer biology with an emphasis on identifying enzymes that are required for breast cancer growth.

Dr. John Niederhuber, former Director of the National Cancer Institute (NCI), said the following about the program when he was Director of the University of Wisconsin Comprehensive Cancer Center in April, 1999:

"Research projects at our institution funded by the Department of Defense are searching for new knowledge in many different fields including: identification of risk factors, investigating new therapies and their mechanism of action, developing new imaging techniques and the development of new models to study [breast cancer] . . . Continued availability of this money is critical for continued progress in the nation's battle against this deadly disease."

Scientists and consumers agree that it is vital that these grants continue to support breast cancer research. To sustain the program's momentum, $150 million for peer-reviewed research is needed in fiscal year 2013.

OUTCOMES AND REVIEWS OF THE DEPARTMENT OF DEFENSE BREAST CANCER RESEARCH PROGRAM

The outcomes of the BCRP-funded research can be gauged, in part, by the number of publications, abstracts/presentations, and patents/licensures reported by awardees. To date, there have been more than 14,724 publications in scientific journals, more than 19,013 abstracts and nearly 643 patents/licensure applications. The American public can truly be proud of its investment in the DOD BCRP. Scientific achievements that are the direct result of the DOD BCRP grants are moving us closer to eradicating breast cancer.

The success of the DOD Peer-Reviewed BCRP has been illustrated by several unique assessments of the program. The Institute of Medicine (IOM), which originally recommended the structure for the program, independently re-examined the program in a report published in 1997. They published another report on the program in 2004. Their findings overwhelmingly encouraged the continuation of the program and offered guidance for program implementation improvements.

The 1997 IOM review of the DOD Peer-Reviewed BCRP commended the program, stating, "the Program fills a unique niche among public and private funding sources for cancer research. It is not duplicative of other programs and is a promising vehicle for forging new ideas and scientific breakthroughs in the nation's fight against breast cancer." The 2004 report spoke to the importance of the program and the need for its continuation.

The DOD Peer-Reviewed BCRP not only provides a funding mechanism for high-risk, high-return research, but also reports the results of this research to the American people every 2 to 3 years at a public meeting called the Era of Hope. The 1997 meeting was the first time a federally funded program reported back to the public in detail not only on the funds used, but also on the research undertaken, the knowledge gained from that research and future directions to be pursued.

Sixteen hundred consumers and researchers met for the sixth Era of Hope meeting in August 2011. As MSNBC.com's Bob Bazell wrote, this meeting "brings together many of the most committed breast cancer activists with some of the nation's top cancer scientists. The conference's directive is to push researchers to think 'out of the box' for potential treatments, methods of detection and prevention . . ." He went on to say "the program . . . has racked up some impressive accomplishments in high-risk research projects . . ."

During the 2011 Era of Hope, investigators presented work that challenged paradigms and pushed boundaries with innovative, high-impact approaches. Some of the research presented looked at new ways to treat the spread of breast cancer, including a vaccine for HER2+ breast cancer that has stopped responding to treatment, and an innovative treatment using nanoparticles of HDL cholesterol tied to chemotherapy drugs to more directly zero in on cancer cells.

The DOD Peer-Reviewed BCRP has attracted scientists across a broad spectrum of disciplines, launched new mechanisms for research and facilitated new thinking in breast cancer research and research in general. A report on all research that has been funded through the DOD BCRP is available to the public. Individuals can go to the Department of Defense Web site and look at the abstracts for each proposal at http://cdmrp.army.mil/bcrp/.

COMMITMENT OF THE NATIONAL BREAST CANCER COALITION

The National Breast Cancer Coalition is strongly committed to the DOD BCRP in every aspect, as we truly believe it is one of our best chances for reaching Breast Cancer Deadline 2020®'s goal of ending the disease by the end of the decade. The Coalition and its members are dedicated to working with you to ensure the continuation of funding for this program at a level that allows this research to forge ahead. From 1992, with the launch of our "300 Million More Campaign" that formed the basis of this program, until now, NBCC advocates have appreciated your support.

Over the years, our members have shown their continuing support for this program through petition campaigns, collecting more than 2.6 million signatures, and through their advocacy on an almost daily basis around the country asking for support of the DOD BCRP.

Consumer advocates have worked hard over the years to keep this program free of political influence. Often, specific institutions or disgruntled scientists try to change the program though legislation, pushing for funding for their specific research or institution, or try to change the program in other ways, because they did not receive funding through the process; one that is fair, transparent, and successful. The DOD BCRP has been successful for so many years because of the experience and expertise of consumer involvement, and because of the unique peer review and programmatic structure of the program. We urge this subcommittee to protect the integrity of the important model this program has become.

There are nearly 3 million women living with breast cancer in this country today. This year, approximately 40,000 will die of the disease and more than 260,000 will be diagnosed. We still do not know how to prevent breast cancer, how to diagnose it in a way to make a real difference or how to end it. It is an incredibly complex disease. We simply cannot afford to walk away from this program.

Since the very beginning of this program in 1992, the Congress has stood with us in support of this important approach in the fight against breast cancer. In the years since, Chairman Inouye and Ranking Member Cochran, you and this entire subcommittee have been leaders in the effort to continue this innovative investment in breast cancer research.

NBCC asks you, the Department of Defense Appropriations subcommittee, to recognize the importance of what has been initiated by the Appropriations Committee. You have set in motion an innovative and highly efficient approach to fighting the breast cancer epidemic. We ask you now to continue your leadership and fund the

program at $150 million and maintain its integrity. This is research that will help us win this very real and devastating war against a cruel enemy.

Thank you again for the opportunity to submit testimony and for giving hope to all women and their families, and especially to the nearly 3 million women in the United States living with breast cancer and all those who share in the mission to end breast cancer.

Chairman INOUYE. I thank you for your testimony and I can assure you that we'll do our very best to maintain the funding. Thank you.

Next panel.

Our next panel consists of: the Honorable Charles Curie, American Foundation for Suicide Prevention; Captain Charles D. Connor, United States Navy, Retired, representing the American Lung Association; Dr. William Strickland, representing the American Psychological Association; and Mr. Robert Ginyard, ZERO—the Project to End Prostate Cancer.

May I call upon Mr. Curie.

STATEMENT OF HON. CHARLES CURIE, MEMBER, NATIONAL BOARD OF DIRECTORS AND PUBLIC POLICY COUNCIL, AMERICAN FOUNDATION FOR SUICIDE PREVENTION

Mr. CURIE. Chairman Inouye, Vice Chairman Cochran: Thank you for providing the American Foundation for Suicide Prevention (AFSP) with the opportunity to present testimony on the needs of programs within the Department of Defense (DOD) that play a critical role in suicide prevention efforts among our Nation's military personnel. I respectfully submit my written comments for the record.

Chairman INOUYE. Without objection.

Mr. CURIE. My name is Charles Curie. I'm a member of AFSP's Public Policy Council and I serve on its National Board of Directors. AFSP is the leading national not-for-profit grassroots organization exclusively dedicated to understanding and preventing suicide through research, education, and advocacy, and to reaching out to people with mental disorders and those impacted by suicide.

My professional experience spans 30 years in the mental health and substance use services field. I was nominated by President George W. Bush and confirmed by the U.S. Senate from 2001 to 2006 to head the Substance Abuse and Mental Health Services Administration (SAMHSA). As SAMHSA Administrator, I led the $3.4 billion agency responsible for improving the accountability, effectiveness, and capacity of the Nation's substance abuse prevention, addictions treatment, and mental health services, including the President's New Freedom Commission on Mental Health, the Strategic Prevention Framework, Access to Recovery, National Outcome Measures, and work with postconflict and war-torn countries' mental health service systems, including Iraq and Afghanistan.

At the outset, I would like to thank the DOD and specifically the Department of the Army for the tremendous strides they have taken in recent years to not only understand suicide, but for the concrete steps they have taken to prevent suicide among their ranks. The DOD message that it's okay to seek help and that getting help is the courageous thing to do certainly saves lives and brings a new level of attention to the problem of suicide.

Today, more than 1.9 million warriors have deployed for Operation Iraqi Freedom and Operation Enduring Freedom, two of our Nation's longest conflicts. The physical and psychological demands on both the deployed and nondeployed soldiers have been enormous. These demands are highlighted by the steady increases in suicides among Army personnel since 2005.

Consider these facts: From 2005 to 2011, more than 927 active-duty Army personnel took their own lives; in 2008, estimates of the rate of suicide among active-duty soldiers began to surpass the suicide rate among U.S. civilians; 278 active-duty Army personnel, National Guard members, and Army reservists died by suicide in 2011; and year-to-date data indicates that so far 2012 is on track to be a record-high year for suicides in the Army.

While access to affordable and quality treatment of mental disorders is critical in preventing suicide, public health efforts to get in front of suicide prevention are equally, if not more, important than healthcare efforts, because we know it is far more difficult to change behavior once someone has already attempted suicide or has received treatment in an inpatient treatment facility.

Last year, the Congress appropriated an $8.1 million increase for the suicide prevention program under the Defense Health Program. While AFSP appreciates the Congress's commitment to preventing suicide among our Nation's military personnel, this funding sits largely unused because of restrictions on how those dollars must be spent. According to the Office of the Secretary of Defense, Defense Health Program dollars must be used for healthcare delivery programs and services, not for prevention, education and training, or research and development programs.

PREPARED STATEMENT

Requiring additional funding to be spent on treatment is not going to help get in front of the problem. The services should have the authority to spend it on prevention efforts and not just healthcare delivery. Therefore, AFSP requests that this subcommittee add clarifying language to the fiscal year 2013 Defense appropriations bill that would allow for these dollars to be spent on pre-medical related prevention, education, and outreach programs.

Thank you, Mr. Chairman, Mr. Vice Chairman, for the opportunity.

[The statement follows:]

PREPARED STATEMENT OF CHARLES CURIE

Chairman Inouye, Ranking Member Cochran, and members of the subcommittee: Thank you for providing the American Foundation for Suicide Prevention (AFSP) with the opportunity to provide testimony on the needs of programs within the Department of Defense (DOD) that play a critical role in suicide prevention efforts among our Nation's military personnel.

At the outset, I would like to thank the DOD, and specifically the Department of the Army, for the tremendous strides they have taken in recent years to not only understand suicide, but for the concrete steps they have taken to prevent suicide among their ranks. Military leaders are now more willing to openly talk about suicide within the military, as well as among veterans and the civilian population. The DOD message that it is okay to seek help, that getting help is the courageous thing to do, has certainly saved lives and brought a new level of attention to the problem of suicide. But we cannot wait for one minute, nor soften our collective resolve, in-

side and outside of Government, to help active duty military, veterans, and their families understand the warning signs of suicide, or where to get help.

AFSP is the leading national not-for-profit, grassroots organization exclusively dedicated to understanding and preventing suicide through research, education, and advocacy, and to reaching out to people with mental disorders and those impacted by suicide. You can see more at www.afsp.org.

My name is Charles Curie. I am member of AFSP's Public Policy Council, and I serve on the AFSP National Board of Directors. I am also the Principal and Founder of The Curie Group, LLC, a management and consulting firm specializing in working with leaders of the healthcare field, particularly the mental health services and substance use treatment and prevention arenas, to facilitate the transformation of services and to attain increasingly positive outcomes in the lives of people worldwide. I currently reside in Rockville, Maryland.

My professional experience spans 30 years in the mental health and substance use services fields. I was nominated by President George W. Bush and confirmed by the U.S. Senate from 2001 to 2006 to head the Substance Abuse and Mental Health Services Administration (SAMHSA). As SAMHSA Administrator, I led the $3.4 billion agency responsible for improving the accountability, capacity, and effectiveness of the Nation's substance abuse prevention, addictions treatment, and mental health services, including The President's New Freedom Commission on Mental Health, the Strategic Prevention Framework for substance use prevention, Access to Recovery, National Outcome Measures and work with post-conflict and war-torn countries metal health and substance use treatment service systems, including Iraq and Afghanistan.

More than 1.9 million warriors have deployed for Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF), two of our Nation's longest conflicts (IOM, 2010). The physical and psychological demands on both the deployed and non-deployed soldiers have been enormous. These demands are highlighted by the steady increase in suicides among Army personnel since 2005.

Consider these facts:

—From 2005 through 2011, more than 927 active duty Army personnel took their own lives.

—In 2008, estimates of the rate of suicide among active duty soldiers in the regular Army, Army Reserve, and Army National Guard began to surpass the suicide rate among U.S. civilians.[1]

—Two hundred seventy-eight active duty Army personnel, National Guard members, and Army reservists died by suicide in 2011.

—Year-to-date data indicates that 2012 is on track to be a record-high year for suicides in the Army.

In light of studies that have shown more than 90 percent of people who die from suicide have one or more psychiatric disorders at the time of their death; critical context for these alarming suicide numbers was provided in the April edition of the Medical Surveillance Monthly Report (MSMR).

The MSMR showed that in 2011 mental disorders accounted for more hospital bed days than any other medical category, and substance abuse and mood disorder admissions accounted for 24 percent of the total DOD hospital bed days.

This report also stated that outpatient behavioral health treatment was the third highest workload category, and that the largest percentage increase in workload between 2007 and 2011 was for mental disorders (99-percent increase or 943,924 additional medical encounters).

While access to affordable and quality treatment of mental disorders is critical in preventing suicide, public health efforts to "get in front" of suicide prevention are equally, if not more, important than healthcare efforts because we know that it is far more difficult to change behavior once someone has already attempted suicide or has received treatment in an inpatient treatment facility.

Last year, the Congress appropriated an $8,158,156 program increase for suicide prevention under the Defense Health Program. While AFSP appreciates the Congress's commitment to preventing suicide among our Nation's military personnel, this funding sits largely unused because of restrictions on how those dollars must be spent.

According to the Office of the Secretary of Defense, Defense Health Program dollars must be used for healthcare delivery programs and services and not for education and training or research and development programs.

Requiring additional funding to be spent on treatment is not going help the services get in "front" of this problem. The services should have the authority to spend

[1] Kuehn BM. Soldier suicide rates continue to rise: military, scientists work to stem the tide. JAMA 2009; 301: 1111–13.

it on "program evaluation" and prevention efforts and not just on healthcare delivery.

Therefore, AFSP requests that this subcommittee add clarifying language to the fiscal year 2013 Defense appropriations bill that would allow for these dollars to be spent on pre-medical related prevention, education, and outreach programs.

Chairman Inouye, Ranking Member Cochran, and members of the subcommittee: AFSP once again thanks you for the opportunity to provide testimony on the funding needs of programs within the Department of Defense that play a critical role in suicide prevention efforts. With your help, we can assure those tasked with leading the Department of Defense's response to the unacceptably high rate of suicide among our military personnel will have the resources necessary to effectively prevent suicide.

Chairman INOUYE. I'm certain you're aware that this subcommittee is deeply concerned about the rising rate of suicides. We will make certain that these funds are used for research and prevention.

Thank you very much.

Mr. CURIE. Thank you.

Chairman INOUYE. Our next witness is Captain Charles D. Connor, representing the American Lung Association.

STATEMENT OF CAPTAIN CHARLES D. CONNOR, U.S. NAVY (RETIRED), PRESIDENT AND CHIEF EXECUTIVE OFFICER, AMERICAN LUNG ASSOCIATION

Captain CONNOR. Thank you very much, Mr. Chairman, Mr. Vice Chairman. It's an honor to be here before you today to discuss important matters such as the health of our Armed Forces. As a retired Navy captain myself, it's very important to me as well.

The American Lung Association, as you know, was founded in 1904 to fight tuberculosis. Today, our mission is to save lives by improving lung health and fighting lung disease. We accomplish this through three research, advocacy, and education.

All of us here, of course, recognize the importance of keeping our military people healthy. Tobacco's adverse impact on health is well known and extensively documented. Accordingly, our view is that tobacco is an insidious enemy of combat readiness.

Additionally, as this subcommittee well knows, healthcare costs for our troops and their families continue to rise, both for the Department of Defense (DOD) and the Veterans Administration (VA). More than a billion dollars of this healthcare bill is being driven by tobacco use annually. We owe it to our military people and their families and the taxpayers to prioritize the lung health of our troops.

The American Lung Association wishes to invite your attention to three issues today for the DOD fiscal year 2013 budget: Number one, the terrible burden on the military caused by tobacco use and the need for the Department to aggressively combat it; the importance of restoring funds for the Peer-Reviewed Lung Cancer Research Program to $20 million; and finally, the health threat posed by soldiers' current and past exposure to toxic pollutants in Iraq and Afghanistan.

The first subject is tobacco, briefly. Tobacco is a significant public health problem for the Defense Department, and it's not a problem that DOD simply inherited. More than 1 in 7 active duty personnel begin smoking after joining the service.

The American Lung Association recognizes the Department of the Navy's recent efforts to reduce tobacco use in their branch,

such as the Navy's 21st Century Sailor and Marine Initiative announced just in the past few weeks. This initiative will help sailors and marines quit tobacco and promote tobacco-free environments. It also puts in place environmental changes that will reduce tobacco use throughout the Navy and Marine Corps.

Likewise, the American Lung Association also recognizes the Air Force for its March 26 instruction on tobacco use. The instruction states that, "The goal is a tobacco-free Air Force." It lays out strong policies on tobacco-free facilities and workplaces, tobacco use in formal training programs, and tobacco cessation programs. The document also establishes clear responsibilities within the Air Force chain of command to accomplish these goals and enforce their policies.

So these steps are really the first signal from the military that tobacco use is disfavored. Both of these efforts, the Departments of the Navy and the Air Force, are unprecedented investments in the comprehensive health of sailors, marines, airmen, and their families. So the American Lung Association hopes these initiatives expand quickly to cover all military personnel.

Also in 2011, DOD released a proposed rule implementing coverage of tobacco cessation treatment through TRICARE. When finalized, this new coverage will give soldiers and their families the help they need to quit tobacco.

All of these actions follow recommendations in the Institute of Medicine's report "Combatting Tobacco Use in Military and Veterans Populations", which is now as of this month 3 years old. The American Lung Association urges the DOD and VA to fully implement all the recommendations in the report and, importantly, we urge the Congress to remove any legislative barriers that exist to implementing these recommendations.

I'd like to leave for the record two articles from the American Journal of Public Health that fully document the extent to which the tobacco industry through their friends in the Congress over decades past have enshrined into law impediments that will impede the elimination of tobacco in the military.

Just to wind up, we strongly support the Lung Cancer Research Program and Congressionally Directed Medical Research Program and its original intent to research the scope of lung cancer in our military. We urge the subcommittee to restore the funding level to $20 million and make sure the program is returned to its original intent as directed by the 2009 program, which states, "These funds shall be used for competitive research. Priority shall be given to the development of integrated components to identify, treat, and manage early curable lung cancer."

Last, respiratory item, the American Lung Association continues to be troubled by reports of soldiers and civilians returning from Iraq and Afghanistan with lung illness. Research is beginning to show that the air our troops breathe in the war theater can have high concentrations of particulate matter, which can cause or worsen lung disease.

PREPARED STATEMENT

Data from a 2009 study of soldiers deployed in Iraq and Afghanistan found that 14 percent of them suffered new-onset respiratory

symptoms. This is a much higher rate than their nondeployed colleagues. So we urge that immediate steps be taken to minimize troop exposure to pollutants and that DOD investigate pollutants in the air our troops breathe.

Thank you very much for your time today.

[The statement follows:]

PREPARED STATEMENT OF CAPTAIN CHARLES D. CONNOR

The American Lung Association is pleased to present this testimony to the Senate Appropriations subcommittee on the Department of Defense (DOD). The American Lung Association was founded in 1904 to fight tuberculosis and today, our mission is to save lives by improving lung health and preventing lung disease. We accomplish this through research, advocacy, and education.

I have no doubt you recognize the importance of keeping our soldiers' lungs healthy. A soldier who uses tobacco or has asthma or other lung disease is a soldier whose readiness for combat is potentially compromised. Additionally, healthcare costs for these troops continue to rise, both for DOD and for the Veteran's Administration (VA). We owe it to our soldiers, their families, and taxpayers to prioritize troops' lung health.

The American Lung Association wishes to invite your attention to three issues for the DOD fiscal year 2013 budget:

—the terrible burden on the military caused by tobacco use and the need for the Department to aggressively combat it;
—the importance of restoring funding for the Peer-Reviewed Lung Cancer Research Program to $20 million; and
—the health threat posed by soldiers' exposure to toxic pollutants in Iraq and Afghanistan.

TOBACCO USE IN THE MILITARY

Tobacco use is a significant public health problem for DOD. And it is not a problem DOD has simply inherited. More than 1 in 7 (approximately 15 percent) of active duty personnel begin smoking after joining the service.

The American Lung Association recognizes the Department of the Navy's recent efforts to reduce tobacco use in the military, such as the Navy's 21st Century Sailor initiative. This initiative will help sailors and marines quit tobacco, promote tobacco-free environments, and put in place environmental changes that will reduce tobacco use throughout the Navy and Marine Corps.

The American Lung Association also recognizes the Department of the Air Force for its March 26 Air Force Instruction (AFI 40–102) on Tobacco Use in the Air Force. The Instruction states that "the goal is a tobacco-free Air Force," and lays out strong policies on tobacco-free facilities and workplaces, tobacco use in formal training programs, and tobacco cessation programs. The document also establishes clear responsibilities within the Air Force chain of command to accomplish its goal and enforce the policies. Both of these efforts are unprecedented investments in the comprehensive health of sailors, marines, and airmen and their families. The American Lung Association hopes these initiatives expand to other military branches.

In 2011, DOD released a proposed rule implementing coverage of tobacco cessation treatment through TRICARE. When finalized, this new coverage will give soldiers and their families the help they need to quit tobacco.

All of these actions follow recommendations in the Institute of Medicine's report Combating Tobacco Use in Military and Veterans Populations. The American Lung Association urges DOD and VA to fully implement all recommendations included in the report.

LUNG CANCER RESEARCH PROGRAM

The American Lung Association strongly supports the Lung Cancer Research Program (LCRP) in the Congressionally Directed Medical Research Program (CDMRP), and its original intent to research the scope of lung cancer in our military. In fiscal year 2012, LCRP received $10.2 million. We urge this subcommittee to restore the funding level to $20 million and that the LCRP be returned to its original intent, as directed by the 2009 program: "These funds shall be for competitive research . . . Priority shall be given to the development of the integrated components to identify, treat, and manage early curable lung cancer".

In August 2011, the National Cancer Institute released results from its National Lung Screening Trial (NLST), a randomized clinical trial that screened at-risk

smokers with either low-dose computed tomography (CT) or standard chest xray. The study found that screening individuals with low-dose CT scans could reduce lung cancer mortality by 20 percent compared to chest xray. These are exciting results, but conclusions can only be drawn for the segment of the population tested by the NLST:

—current or former smokers aged 55 to 74 years;

—a smoking history of at least one pack a day for at least 30 years; and

—no history of lung cancer. As the report made clear, CT scans should be recommended for this narrowly defined population of patients—but evidence does not support recommending them for everyone.

The American Lung Association recently endorsed screening for this defined population.

The Lung Cancer Research Program has the potential to further knowledge on the early detection of lung cancer. The program recently funded an exciting study at Boston University aimed at discovering biomarkers to improve the accuracy of lung cancer diagnoses. We encourage the DOD to continue its research into lung cancer.

RESPIRATORY HEALTH ISSUES

The American Lung Association is troubled by reports of soldiers and civilians returning from Iraq and Afghanistan with lung illnesses. Research is beginning to show that the air troops breathe in the war theater can have high concentrations of particulate matter, which can cause or worsen lung disease. Data from a 2009 study of soldiers deployed in Iraq and Afghanistan found that 14 percent of them suffered new-onset respiratory symptoms, a much higher rate than their non-deployed colleagues. The American Lung Association urges that immediate steps be taken to minimize troop exposure to pollutants and that the DOD investigate pollutants in the air our troops breathe.

CONCLUSION

In summary, this Nation's military is the best in the world, and we should do whatever necessary to ensure that the lung health needs of our armed services are fully met. Troops must be protected from tobacco and unsafe air pollution and the severe health consequences.

Thank you.

Chairman INOUYE. The matter that you have discussed is very serious and we look upon it as very serious. I can assure you that we'll continue funding this.

Thank you.

Our next witness is Dr. William Strickland, representing the American Psychological Association.

STATEMENT OF WILLIAM J. STRICKLAND, Ph.D., AMERICAN PSYCHOLOGICAL ASSOCIATION

Dr. STRICKLAND. Good morning, Mr. Chairman and Mr. Vice Chairman. I'm Dr. Bill Strickland from the Human Resources Research Organization (HumRRO). I'm submitting testimony today on behalf of the American Psychological Association (APA), which is a scientific and professional organization of more than 137,000 psychologists.

For decades, psychologists have played vital roles within the Department of Defense (DOD) as providers of clinical services to military personnel and their families and as scientific researchers investigating mission-targeted issues ranging from airplane cockpit design to counterterrorism. My own military-oriented research and consulting focus on recruiting, selecting, and training enlisted members of the Army and the Air Force.

My testimony this morning will focus on reversing administration-proposed cuts to the DOD science and technology (S&T) budget. In terms of the overall DOD S&T budget, the President's request for fiscal year 2013 represents another step backward for de-

fense research. Defense S&T would fall from an enacted fiscal year 2012 level of $12.3 billion to $11.9 billion.

APA urges the subcommittee to reverse this cut to the critical Defense Science Program by providing a total of $12.5 billion in Defense S&T funds in fiscal year 2013. APA also encourages the subcommittee to provide increased funding to reverse specific cuts to psychological research throughout the military research laboratories. This human-centered research is vital to sustaining warfighter superiority and both the national academies and the Defense Science Board recommend that DOD fund priority research in the behavioral sciences in support of national security.

In the President's proposed fiscal year 2013 budget, the Army and Air Force basic and applied research accounts all would be reduced. The Air Force Research Laboratory's Human Effectiveness Directorate is an example of a vital DOD human-centered research program slated for dramatic cuts. Headquartered at Wright-Paterson Air Force Base in Ohio, with additional research sites in Texas and Arizona, the Human Effectiveness Directorate's mission is to provide science and leading-edge technology to define human capabilities, vulnerabilities and effectiveness, to train warfighters, to integrate operators and weapons systems, and to protect Air Force personnel while sustaining aerospace operations.

The directorate is the heart of human-centered science and technology in the Air Force as it integrates both biological and cognitive technologies to optimize and protect airmen's capabilities to fly, fight, and win in air, space, and cyberspace. Proposed cuts to this directorate would cripple the Air Force's to optimize the human elements of warfighting capability.

PREPARED STATEMENT

We urge you to support the men and women on the front lines by reversing yet another round of cuts to the overall Defense S&T account, and specifically to the human-oriented research projects within the military laboratories.

Thank you and I'd be happy to answer any questions.

Chairman INOUYE. We will most certainly look into these cuts. I've been told that you have some report language you'd like to recommend.

Dr. STRICKLAND. Yes, Sir, we do. It's in my written statement.

Chairman INOUYE. Will you submit that, Sir?

Dr. STRICKLAND. Yes, Sir.

Chairman INOUYE. I thank you very much, Doctor.

[The statement follows:]

PREPARED STATEMENT OF WILLIAM J. STRICKLAND, PH.D.

The American Psychological Association (APA) is a scientific and professional organization of more than 137,000 psychologists and affiliates.

For decades, psychologists have played vital roles within the Department of Defense (DOD), as providers of clinical services to military personnel and their families, and as scientific researchers investigating mission-targeted issues ranging from airplane cockpit design to counterterrorism. More than ever before, psychologists today bring unique and critical expertise to meeting the needs of our military and its personnel. APA's testimony will focus on reversing administration cuts to the overall DOD Science and Technology (S&T) budget and maintaining support for important behavioral sciences research within DOD.

The President's budget request for basic and applied research at DOD in fiscal year 2013 is $11.9 billion, a significant cut from the enacted fiscal year 2012 level of $12.3 billion. APA urges the subcommittee to reverse this cut to the critical Defense Science Program by providing a total of $12.5 billion for Defense S&T in fiscal year 2013.

APA also encourages the subcommittee to provide increased funding to reverse specific cuts to psychological research through the military research laboratories. This human-centered research is vital to sustaining warfighter superiority.

DEPARTMENT OF DEFENSE RESEARCH

"People are the heart of all military efforts. People operate the available weaponry and technology, and they constitute a complex military system composed of teams and groups at multiple levels. Scientific research on human behavior is crucial to the military because it provides knowledge about how people work together and use weapons and technology to extend and amplify their forces."——Human Behavior in Military Contexts; Report of the National Research Council, 2008.

Just as a large number of psychologists provide high-quality clinical services to our military servicemembers stateside and abroad (and their families), psychological scientists within DOD conduct cutting-edge, mission-specific research critical to national defense.

BEHAVIORAL RESEARCH WITHIN THE MILITARY SERVICE LABS AND DEPARTMENT OF DEFENSE

Within DOD, the majority of behavioral, cognitive, and social science is funded through the Army Research Institute for the Behavioral and Social Sciences (ARI) and Army Research Laboratory (ARL); the Office of Naval Research (ONR); and the Air Force Research Laboratory (AFRL), with additional, smaller human systems research programs funded through the Office of the Secretary of Defense (OSD) and the Defense Advanced Research Projects Agency (DARPA).

The military service laboratories provide a stable, mission-oriented focus for science, conducting and sponsoring basic (6.1), applied/exploratory development (6.2), and advanced development (6.3) research. These three levels of research are roughly parallel to the military's need to win a current war (through products in advanced development, 6.3) while concurrently preparing for the next war (with technology "in the works," 6.2) and the war after next (by taking advantage of ideas emerging from basic research, 6.1). All of the services fund human-related research in the broad categories of personnel, training, and leader development; warfighter protection, sustainment, and physical performance; and system interfaces and cognitive processing.

National Academies Report Calls for Doubling Behavioral Research

A recent National Academies report on "Human Behavior in Military Contexts" recommended doubling the current budgets for basic and applied behavioral and social science research "across the U.S. military research agencies." It specifically called for enhanced research in six areas:

—intercultural competence;
—teams in complex environments;
—technology-based training;
—nonverbal behavior;
—emotion; and
—behavioral neurophysiology.

Behavioral and social science research programs eliminated from the mission labs due to cuts or flat funding are extremely unlikely to be picked up by industry, which focuses on short-term, profit-driven product development. Once the expertise is gone, there is absolutely no way to "catch up" when defense mission needs for critical human-oriented research develop. As DOD noted in its own Report to the Senate Appropriations Committee:

"Military knowledge needs are not sufficiently like the needs of the private sector that retooling behavioral, cognitive and social science research carried out for other purposes can be expected to substitute for service-supported research, development, testing, and evaluation . . . our choice, therefore, is between paying for it ourselves and not having it."

Defense Science Board Calls for Priority Research in Social and Behavioral Sciences

This emphasis on the importance of social and behavioral research within DOD is echoed by the Defense Science Board (DSB), an independent group of scientists and defense industry leaders whose charge is to advise the Secretary of Defense and the Chairman of the Joint Chiefs of Staff on "scientific, technical, manufacturing, acquisition process, and other matters of special interest to the Department of Defense".

In its report on "21st Century Strategic Technology Vectors", the DSB identified a set of four operational capabilities and the "enabling technologies" needed to accomplish major future military missions (analogous to winning the Cold War in previous decades). In identifying these capabilities, DSB specifically noted that "the report defined technology broadly, to include tools enabled by the social sciences as well as the physical and life sciences." Of the four priority capabilities and corresponding areas of research identified by the DSB for priority funding from DOD, the first was defined as "mapping the human terrain"—understanding the human side of warfare and national security.

FISCAL YEAR 2013 DEPARTMENT OF DEFENSE BUDGET FOR SCIENCE AND TECHNOLOGY

Department of Defense

In terms of the overall DOD S&T budget, the President's request for fiscal year 2013 again represents a step backward for defense research. Defense S&T would fall from an enacted fiscal year 2012 level of $12.3 to $11.9 billion. The military service labs and Defense-wide research offices would see variable decreases, but also in some cases increases, to their accounts. The Army and Air Force 6.1, 6.2, and 6.3 accounts all would be reduced in the proposed budget. Navy's basic research account (6.1) would remain funded at the fiscal year 2012 level, but its 6.2 and 6.3 applied research portfolios each would see decreases. DOD's OSD Defense-wide account would get increased funding in fiscal year 2013 for both its basic 6.1 and advanced development 6.3 research, whereas its 6.2 applied research account would be cut.

AFRL's Human Effectiveness Directorate is an example of a vital DOD human-centered research program slated for dramatic cuts in the President's fiscal year 2013 budget. Headquartered at Wright-Patterson Air Force Base in Ohio (with additional research sites in Texas and Arizona), the 711th Human Performance Wing's Human Effectiveness Directorate's mission is to provide "science and leading-edge technology to define human capabilities, vulnerabilities and effectiveness; train warfighters; integrate operators and weapon systems; protect Air Force personnel; and sustain aerospace operations. The directorate is the heart of human-centered science and technology for the Air Force", and integrates "biological and cognitive technologies to optimize and protect the Airman's capabilities to fly, fight and win in air, space and cyberspace". Proposed cuts to this Directorate would cripple the Air Force's ability to optimize the human elements of warfighting capability.

Defense Advanced Research Projects Agency

Defense Advanced Research Projects Agency (DARPA) is slated for a slight agency-wide increase over its fiscal year 2012 level, increasing from $2.74 to $2.75 billion in fiscal year 2013.

SUMMARY

The President's budget request for basic and applied research at DOD in fiscal year 2013 is $11.9 billion, a significant cut from the enacted fiscal year 2012 level of $12.3 billion. APA urges the subcommittee to reverse this cut to the critical Defense Science Program by providing a total of $12.5 billion for Defense S&T in fiscal year 2013.

APA also encourages the subcommittee to provide increased funding to reverse specific cuts to psychological research through the military research laboratories. This human-centered research is vital to sustaining warfighter superiority.

Within the S&T program, APA encourages the subcommittee to follow recommendations from the National Academies and the Defense Science Board to fund priority research in the behavioral sciences in support of national security. Clearly, psychological scientists address a broad range of important issues and problems vital to our national defense, with expertise in modeling behavior of individuals and groups, understanding and optimizing cognitive functioning, perceptual awareness, complex decisionmaking, stress resilience, recruitment and retention, and human-systems interactions. We urge you to support the men and women on the front lines by reversing another round of cuts to the overall Defense S&T account and the human-oriented research projects within the military laboratories.

As our Nation continues to meet the challenges of current engagements, asymmetric threats, and increased demand for homeland defense and infrastructure protection, enhanced battlespace awareness and warfighter protection are absolutely critical. Our ability to both foresee and immediately adapt to changing security environments will only become more vital over the next several decades. Accordingly, DOD must support basic S&T research on both the near-term readiness and modernization needs of the Department and on the long-term future needs of the warfighter.

Below is suggested appropriations report language for fiscal year 2013 which would encourage the DOD to fully fund its behavioral research programs within the military laboratories and the Minerva Initiative:

DEPARTMENT OF DEFENSE

Research, Development, Test, and Evaluation

Warfighter Research.—The subcommittee notes the increased demands on our military personnel, including high operational tempo, leadership and training challenges, new and ever-changing stresses on decisionmaking and cognitive readiness, and complex human-technology interactions. To help address these issues vital to our national security, the subcommittee has provided increased funding to reverse cuts to psychological research through the military research laboratories:

—the Air Force Office of Scientific Research and Air Force Research Laboratory;
—the Army Research Institute for the Behavioral and Social Sciences and Army Research Laboratory; and
—the Office of Naval Research.

The Committee also notes the critical contributions of behavioral science to combating counterinsurgencies and understanding extremist ideologies, and renews its strong support for the DOD Minerva Initiative.

Chairman INOUYE. Our next witness is Mr. Robert Ginyard, ZERO—the Project to End Prostate Cancer.

STATEMENT OF ROBERT GINYARD, MEMBER, BOARD OF DIRECTORS, ZERO—THE PROJECT TO END PROSTATE CANCER

Mr. GINYARD. Good morning, Mr. Chairman. Good morning, Vice Chairman. Thank you for the opportunity to speak to you about the prostate cancer research program and the Congressionally Directed Medical Research Programs at the Department of Defense.

My name is Robert Ginyard. I am a member of the Board of Directors of ZERO—The Project to End Prostate Cancer, but I'm also a prostate cancer survivor.

ZERO is a patient advocacy organization that raises awareness and educates men and their families about prostate cancer. Of particular importance to us is the issue of early detection. It is a fact that early detection of prostate cancer increases the likelihood that a man will survive prostate cancer. In fact, if caught early the cancer—surviving cancer at least 5 years is nearly 100 percent. If the cancer spreads outside of the prostate into other organs, the chances drop to 29 percent. This is why I'm here today.

The recent actions taken by the United States Preventative Service Task Force (USPSTF) threaten men's access to care and makes it more important than ever for us to protect critical research dollars that will help doctors make better decisions about the diagnosis and treatment.

Two years ago my life was changed forever when I heard the words: "You have prostate cancer." Because my father also had prostate cancer, I began having my prostate checked at age 40. I am now 49. During my annual checkup, my doctor noticed that my prostate-specific antigen (PSA) level was high, and it had been rising in recent years. After the results of this PSA, however, my doctor suggested that I see a urologist.

A few days after, I received a call that I would never want to wish on anyone else. The doctor said: You do have prostate cancer. I recall the doctor mentioning that he hated to give this news on a Monday morning and, quite frankly, it wouldn't have mattered what day he had given me this news.

I remember crying in the stairwell outside of my office. The only thing I thought about was death, how long do I have to live, will I see my daughters go to their prom, will I see them go off to college, how will my beautiful wife and children make out without me if something happens to me?

After getting over my diagnosis, it was time to take action. I elected to receive a radical prostatectomy in 2010, but because there were positive margins I had to undergo 4 months of radiation treatment and 4 months of hormone treatment. Thirteen months afterwards, I'm proud to say, I'm happy to say, I'm blessed to say, I am cancer-free with a great quality of life.

But one of the most important things that came out of my experiences things. During my daily treatments, most of the men that I was in treatment with would always talk about their wives. They would talk about them with hope in their voices. They talked about how they wanted to enjoy life rather than focus on death. It is my hope that we find a cure for prostate cancer so that every day will be a father's day, a son's day, a brother's day, a good friend's day.

I'm here today because prostate cancer affects the family, not just the man. I am here today because I want the important research at the Congressionally Directed Medical Research Program, and particularly the Prostate Cancer Research Program.

Prostate cancer is a disease that is diagnosed in more than 240,000 American men each year and will kill 28,000 men in 2012. It is the second leading cause of cancer deaths among men. One in six men—1 in 4 African-American men—will get prostate cancer. Some will only be in their 30s.

The recent recommendation change by the USPSTF has highlighted the issue of early detection for prostate cancer. However, the issue is not whether we should be trying to detect prostate cancer early, but how we can do it most effectively and identify what cancers should be treated versus the ones that shouldn't. The only way that doctors will know the answer to this question is through advances that may be closer than we think.

In 2010, research partially funded by the Prostate Cancer Research Program identified 24 types of prostate cancer. Each of these are aggressive forms of the disease. If we could identify what type of cancer a man has, we could more effectively determine if he needs treatment and how aggressive treatment should be. This would render moot the argument some make that the disease is overtreated and ultimately save men's lives.

The Prostate Cancer Research Program is funding some of the most critical research in cancer today. I ask that the committee continue to fund this important, important research. Many men will count on you. Many women will count on you. Their family members will count on you.

PREPARED STATEMENT

It is one day that I can always look back and say: Hey, look, I was there with you. I hope we get through this together. I just ask for your continued support in this initiative. There are many men who are really hoping that you make the right decision to allocate the proper resources for this research.

I thank you for your time and I thank you for your efforts and all that you've done. Thank you.

[The statement follows:]

PREPARED STATEMENT OF ROBERT GINYARD

Mr. Chairman and members of the subcommittee: Thank you for the opportunity to speak to you about the Prostate Cancer Research Program (PCRP) and the Congressionally Directed Medical Research Programs (CDMRP) at the Department of Defense. My name is Robert Ginyard—I am a member of the Board of Directors of ZERO—The Project to End Prostate Cancer. Many people can speak effectively about the research this program has done or is doing, about its history, funding levels, and accomplishments, but I want to tell you about my experience with prostate cancer and how you are having an impact on the lives of patients and will continue to impact the lives of men and their families through the research funded by the PCRP.

ZERO is a patient advocacy organization that raises awareness and educates men and their families about prostate cancer. Of particular importance to us is the issue of early detection. It is a fact that early detection of prostate cancer increases the likelihood that a man will survive prostate cancer. In fact, if caught early, a man's chances of surviving cancer at least 5 years is nearly 100 percent—if the cancer spreads outside of the prostate into other organs those chances drop to 29 percent. This is why I am here today—recent actions by the United States Preventive Services Task Force (USPSTF) threaten men's access to care and makes it more important than ever for us to protect critical research dollars that will help doctors make better decisions about diagnosis and treatment.

Two years ago, my life was changed forever by three words I thought I would never hear: "You have cancer." Prior to receiving the news that I had prostate cancer, I was engaged in another sort of battle—seeking investors to raise capital for my tote bag company. And then things came to an unexpected halt.

Because my father also had prostate cancer, I began having my prostate checked at age 40; I am now 49. During my annual check up my doctor noticed that my prostate specific antigen (PSA) level was high—it had been rising in recent years. After the results of this PSA, however, my doctor suggested I see a urologist for a biopsy. After a few days, I received a call that I thought I would never receive—we did find cancer in your prostate. I recall the doctor mentioning that he hated to deliver this type of news on a Monday morning. Quite frankly, with this type of news, it would not have made a difference what day I received it. I remember crying in a stairwell outside of my office. The only thing I thought of was death. How long do I have to live? Will this mean I won't get to see my beautiful daughters go to their high school prom, or graduate from college? How will my wife and daughters make it without me?

After getting over the shock of my diagnosis, it was time to take action and research the treatment options that were available to me. I elected to have a radical prostatectomy in August 2010. Because there were positive margins after my surgery, I underwent 4 months of hormone therapy and 8 weeks of radiation treatments. Thirteen months after treatment, I am happy to be cancer-free with a great quality of life.

One of the most interesting things that came out of my prostate cancer experience was the power of hope. During my daily radiation treatments, many of the men who I got to know on a very personal basis always had a look of hope in their eyes. Going through with their treatments they always talked about their wives. They talked about it with hope in their voices—hope that their treatment will cure them, or keep the cancer away long enough to be more engaged in living rather than focusing on dying. It is with this hope that we must continue to fund prostate cancer research so that everyday will be father's day, son's day, grandfather's day, uncle's day, brother's day, or simply a good friend's day.

I am here today because prostate cancer affects the family, not just the man. I am here today because I want to stress the importance of research at the CDMRP and particularly the PCRP.

Prostate cancer is a disease that is diagnosed in more than 240,000 American men each year and will kill more than 28,000 men in 2012. It is the second-leading cause of cancer related deaths among men. One in six men—1 in 4 African-American men—will get prostate cancer and some will only be in their 30s. It's not just an old man's disease.

The recent recommendation change by the USPSTF has highlighted the issue of early detection for prostate cancer. However, the issue is not whether we should be trying to detect prostate cancer early, but how can we do it most effectively and identify the cancers that should be treated versus the ones that shouldn't.

The only way doctors will ever really know the answer to this question is through advances that may be closer than we think. In 2010, research partially funded by the PCRP identified 24 different types of prostate cancer. Eight of these are aggressive forms of the disease. If we could identify what type of prostate cancer a man has, we could more effectively determine if he needs treatment and how aggressive that treatment should be. This would render moot the argument some make that the disease is over-treated, and ultimately save men's lives.

Another innovative funding mechanism of the PCRP is the Clinical Trials Consortium. To address the significant logistical challenges of multicenter clinical research, the clinical trials consortium was started to promote rapid Phase I and Phase II trials of promising new treatments for prostate cancer.

Since 2005, nearly 90 trials with more than 2,600 patients have taken place, leading to potential treatments that will soon be available to patients. Two recently approved drugs, XGEVA and ZYTIGA, benefited from the consortium, accelerating their approval time by more than 2 years.

The PCRP is funding some of the most critical work in cancer today. The program uses innovative approaches to funnel research dollars directly into the best research to accelerate discovery, translate discoveries into clinical practice, and improve the quality of care and quality of life of men with prostate cancer.

It is the only federally funded program that focuses exclusively on prostate cancer, which enables them to identify and support research on the most critical issues facing prostate cancer patients today. The program funds innovative, high-impact studies—the type of research most likely to make a difference.

I understand that the subcommittee is working under extremely tight budgetary constraints this year and that many tough decisions are ahead. This program is important to the millions of men who are living with the disease, those who have survived the disease and those who are at risk for the disease, including our veterans and active duty military personnel.

Active duty males are twice as likely to develop prostate cancer as their civilian counterparts. While serving our country, the United States Armed Forces are exposed to deleterious contaminants such as Agent Orange and depleted uranium. These contaminants are proven to cause prostate cancer in American veterans. Unfortunately, the genomes of prostate cancer caused by Agent Orange are the more aggressive strands of the disease, and they also appear earlier in a man's life. In addition, a recent study showed that Air Force personnel were diagnosed with prostate cancer at an average age of just 48.

There are many men that will be diagnosed with cancer this year. These men are placing their hope in this subcommittee that you will consider them as you make the decision to allocate the proper resources to help find a cure for this disease that not only affects men, but their families and other loved ones.

Thank you very much for your time.

Chairman INOUYE. I thank you very much, Mr. Ginyard, and I can assure you we'll do our best to continue funding.

Mr. GINYARD. Thank you, Sir.

Chairman INOUYE. I'd like to thank the panel.

Our next panel consists of: Captain Marshall Hanson, U.S. Navy, Retired, representing Associations for America's Defense; Major General Andrew "Drew" Davis, United States Marine Corps, Retired, representing the Reserve Officers Association; Ms. Karen Goraleski, representing the American Society for Tropical Medicine and Hygiene; and Mr. John Davis, representing the Fleet Reserve Association.

May I call upon Captain Hanson.

STATEMENT OF CAPTAIN MARSHALL A. HANSON, U.S. NAVY (RETIRED), ACTING CHAIRMAN, ASSOCIATIONS FOR AMERICA'S DEFENSE

Captain HANSON. Thank you, Mr. Chairman, Senator Cochran. It's nice to be back in this seat after an absence before this subcommittee of a couple of years.

The Associations for America's Defense (A4AD) is again honored to testify. A4AD represents 13 associations that share a concern for our national security.

While the subcommittee is recognized for its stewardship on the defense issues, the challenges being faced this year seem almost insurmountable. The administration's new defense strategy guidance realigns national security with a tighter Federal budget. Scheduled personnel cuts that start in 2015 will be used to pay for future investments in intelligence, surveillance, reconnaissance, cyberspace, and counterterrorism. The resulting reduction in force is supposed to be offset by building partner capacity and by employing the concept of reversibility.

While this may look good on paper, one can question the substance. Not only is the Nation's security at risk of being hollowed out from underbudgeting, but with the incomplete strategy the United States might not be planning for a potential threat.

The Pentagon will rely on traditional and new allies to complement the U.S. force structure. Yet, European defense plans will still rely on the United States. With military budgets being cut in nearly all North Atlantic Treaty Organization (NATO) countries, there is little promise that Europe is ready to pick up the slack.

The defense guidance also states that the concept of reversibility is a key part of the U.S. decision calculus, placing emphasis on quickly restarting the industrial base and relying on the right Active-to-Reserve component balance. This is akin to building our defense foundation on quicksand. Reversibility will take time, which may not be available in a crisis.

The Pentagon has warned the Congress that there is no room for modification of their budget or their strategy. This was emphasized by the lack of submission of unfunded priority lists. A4AD agrees with those Senators who wrote the service chiefs that, without the military's budgetary needs, the Congress cannot accurately determine the resources necessary for our Nation's defense.

Normally, A4AD's testimony would include an unfunded list for both the active and Reserve components which were submitted by member associations. But the blackout of information has affected us as much as it has this subcommittee.

When the Air Force suggested hasty cuts to its infrastructure, the Congress wisely questioned this hurriedness. The Senate Armed Services Committee has suggested a commission to study the makeup of the Air Force. A4AD shares the concern over the lack of analysis and justification and suggests that this type of study needs to be done for all of the services.

The Armed Forces need a critical surge capacity for domestic and expeditionary support to national security in response to domestic disasters. A strategic surge construct needs to include manpower, airlift, and air refueling, sealift inventory, logistics, and commu-

nications to provide a surge-to-demand operation. This capacity requires funding for training, equipment, and maintenance of a mission-ready strategic reserve composed of both active and Reserve units.

PREPARED STATEMENT

This in itself is formidable, only complicated further by budget control. The specter of sequestration only multiplies the complexity of the puzzle that needs to be solved. The disastrous consequences of automatic cuts to defense have been documented in earlier hearings. A4AD asks this subcommittee to work toward resolving sequestration prior to a lame duck session, before the meat cleaver chops into the military and the defense industry.

Thank you again for the opportunity to testify.

[The statement follows:]

PREPARED STATEMENT OF CAPTAIN MARSHALL HANSON, USN (RETIRED)

ASSOCIATIONS FOR AMERICA'S DEFENSE

Founded in January 2002, the Associations for America's Defense (A4AD) is an ad hoc group of military and veteran service organizations that have concerns about National Security issues that are not normally addressed by The Military Coalition (TMC) and the National Military Veterans Alliance (NMVA), but participants are members from each. Members have developed expertise in the various branches of the Armed Forces and provide input on force policy and structure. Among the issues that are addressed are equipment, end strength, force structure, and defense policy. A4AD also cooperatively works with other associations, who provide input while not including their association name to the membership roster.

PARTICIPATING ASSOCIATIONS

American Military Society
Army and Navy Union
Association of the U.S. Navy
Enlisted Association of the National Guard of the United States
Hispanic War Veterans of America
Marine Corps Reserve Association
Military Order of World Wars
National Association for Uniformed Services
Naval Enlisted Reserve Association
Reserve Enlisted Association
Reserve Officers Association
The Flag and General Officers' Network
The Retired Enlisted Association

INTRODUCTION

Mr. Chairman and distinguished members of the subcommittee, A4AD is again very grateful for the invitation to testify before you about our views and suggestions concerning current and future issues facing the Department of Defense Subcommittee Appropriations.

A4AD is an ad hoc group of 13 military and veteran associations that have concerns about national security issues. Collectively, we represent Armed Forces members and their families, who are serving our Nation, or who have done so in the past.

CURRENT VERSUS FUTURE: ISSUES FACING DEFENSE

A4AD would like to thank this subcommittee for the on-going stewardship that it has demonstrated on issues of defense. While in a time of war, this subcommittee's pro-defense and nonpartisan leadership continues to set an example.

Force Structure: The Risk of Erosion in Capability

Last January, the Obama administration announced a new Defense Strategy Guidance, which has been a driving force in current budget talks. The new strategy realigns national security with a tighter Federal budget. Not only is the Nation's security at risk of being hollowed out from being under budgeted, but with an incomplete strategy the United States might not be planning for a potential future threat.

Not surprisingly, a lot of the aspects about this plan are not new. The new strategy for the United States has evolved from fighting and quickly winning two major wars simultaneously into winning one war while "deterring" or "dismantling" the designs of a second potential adversary.

Part of the "revolution" in military thinking justifying a new strategy is a refocus from Europe to "rebalance toward the Asia-Pacific region". It requires a shift of power to the Pacific, with military end-strength reductions in Europe. But rather than build up garrisoned forces in the Far East, this plan calls upon the mobility of the Navy and Air Force to project power.

With a leaner defense strategy, the Pentagon will rely on traditional and new allies to complement U.S. force structure. With the U.S. planning to reduce its financial and military presence in Europe, the Department of Defense (DOD) will expect Europe to take the lead. Yet with military budgets being cut in nearly all North Atlantic Treaty Organization (NATO) countries, there is little promise that Europe is ready to pick up the slack.

Six years ago, Admiral Mike Mullen, then Chief of Naval Operations, envisioned a thousand-ship Navy, where the U.S. and other navies worldwide would partner to improve maritime security and information sharing. "For it to work, explicit and implicit references to U.S. security concerns have to go", warned one unnamed, former military officer in an "Armed Forces Journal" article.

The risk of basing a national security policy on foreign interests and good world citizenship is increasingly uncertain because their national objectives can differ from our own. Alliances should be viewed as a tool and a force multiplier, but not the foundation of National Security.

In many ways, the new strategy is "back to the future", with DOD constructing a strategy on old tactics and untried concepts, in order to save money. This strategy is building a force structure on a shaky foundation. Rather than rushing into this unknown, the Congress needs to examine this plan closer.

BUDGETARY CONSTRAINTS

A4AD strongly disagrees with placing budgetary constraints on defense, especially in light of the fact that under the Budget Control Act of 2011 (BCA) defense will take 50 percent of the cuts despite being less than 20 percent of the overall budget. Member associations also question the current administration's spending priorities, which place more importance on the immediate future rather than a longer-term approach.

DOD faces a trigger of an additional $500 billion in budget reduction starting on January 1, 2013, that is in addition to the $587 billion already planned by DOD as cuts over the next 10 years, unless something is done by the Congress.

"Historically we've run about 20 percent reductions after these conflicts", warned General James E. "Hoss" Cartwright, USMC (Retired), former Vice Chairman of the Joint Chiefs at the Joint Warfighting Conference. "We are about halfway there . . . If you take another two hundred billion out of this budget, we're going to start to run into a problem if you don't start thinking about strategy."

At a time when strategy is being shaped by budget, election posturing, and an authority squabble between the Congress and the Secretary of Defense, national security is being held hostage.

AUTHORITY OVER FORCE STRUCTURE AND STRATEGY

A conflict has arisen over who maintains force structure. Defense Secretary Leon Panetta has objected to additional defense funding in the House National Defense Authorization Act, emphasizing that every $1 added to the defense authorization will come at the expense of other critical national security programs. House Armed Services Committee chairman Representative Buck McKeon responded that increases were offset while complying with the overall BCA budget targets, which specify $487 billion in cuts.

This exchange reflects an ongoing tension between the Pentagon and the Congress over defense budgeting. The new Defense Strategy Guidance warns "as a result of a thorough process that was guided by the strategy and that left no part of the budget unexamined, we have developed a well-rounded, balanced package. There is no room for modification if we are to preserve the force and capabilities that are needed to protect the country and fulfill the missions of the Department of Defense." The Pentagon is frustrated with any amount of control by the Congress over the department's business.

A4AD understands that the Congress takes seriously their constitutional responsibility to raise and maintain the Armed Forces. This is interpreted as congressional

authority to fund, equip, and train the military and give committees, such as this, oversight on the force structure, including nonfunded items.

RISK OF SEQUESTRATION

As sequestration automatically cuts the Federal budget, DOD faces a trigger of an additional $500 billion in budget reduction starting on January 1, 2013 unless the Congress finds an offset or agrees to reconciliation.

Secretary of Defense Panetta has warned the Congress that if the automatic cuts of sequestration are allowed to take effect then the number of U.S. ground troops would fall to pre-1940 levels; the Navy would have the smallest number of ships since 1915; and the Air Force would be the smallest ever.

If the President exempts personnel accounts, Secretary Panetta warns that sequestration could require a 23-percent cut across the military's budget for fiscal year 2013.

Some are suggesting that reconciliation can wait until after the election, but the lame duck session schedule is already full. Among things needing to be considered by December 31, 2012, are reversing cuts to doctors' Medicare payments, Bush tax rates, 2-percent Social Security payroll-tax cut, increasing the debt-ceiling negotiations, expiration of the payroll tax cut, extending unemployment benefits, rises in the Alternative Minimum Tax and the estate tax rates, tax cuts from the 2009 economic-growth/stimulus law, the 100-percent write-off for business investment, transportation and farm bill reauthorizations, and 12 appropriations bills.

A4AD takes a position that it is vital that reconciliation is reached prior to the national election. The House has already passed its version. A4AD hopes that the Senate develops and passes its own version of a balanced deficit reduction package, thus permitting the two chambers to conference.

END STRENGTH

The administration already proposes cutting 100,000 troops. End-strength cuts need to be made cautiously.

The deployment of troops to Iraq and Afghanistan proved that the pre-9/11 end strengths left the Army and Marine Corps undermanned, which stressed the force. Sequestration would double the reductions for these two services.

The goal for active duty dwell time is 1:3, and 1:5 for the Reserve component. After 10 years of war, this has yet to be achieved under current operations tempo, and end-strength cuts will only further impact dwell time.

Trying to pay the defense bills by premature manpower reductions will have consequences.

REVERSIBILITY?

President Obama made the point that an important goal of his Defense strategy guidance was to avoid the mistakes made in previous downsizings. He suggested that this could be done by designing reversibility into the drawdown.

"The concept of 'reversibility'—including the vectors on which we place our industrial base, our people, our Active-Reserve component balance, our posture and our partnership emphasis—is a key part of our decision calculus," states the new DOD strategy.

This concept should be approached cautiously. If manpower is drawndown and industry production lines are shut down, either will take years to recover.

Adequate training for an infantry warrior can take a year and more, and even then they lack the field experience. DOD's solution is to keep midgrade officers and enlisted that can mature into the next-generation leadership. Unfortunately, this is where shortages currently exist.

If industry is shutdown, skilled labor is laid off, and without incentives tooling is destroyed. A restart is neither quick nor inexpensive. Even with equipment back online, the skilled labor has left for other work opportunities.

Without question, DOD needs to plan how it can sustain basic proficiencies needed to battle emerging threats before relying on reversibility. A4AD questions this strategy.

MAINTAINING A SURGE CAPABILITY

The Armed Forces need to provide critical surge capacity for homeland security, domestic, and expeditionary support to national security and defense, and response to domestic disasters, both natural and man-made that goes beyond operational forces. A strategic surge construct includes manpower, airlift and air refueling, sealift inventory, logistics, and communications to provide a surge-to-demand operation.

This capability requires funding for training, equipping, and maintenance of a mission-ready strategic reserve composed of Active and Reserve units.

The budget will drive changes to the Armed Forces structure. The National Guard and Reserve are in a position to fulfill many of the missions, while remaining an affordable alternative.

BASE CLOSURE OR DEFENSE REALIGNMENT?

The President's budget recommends two more rounds of base closures. A4AD does not support such a base realignment and closure (BRAC) recommendation.

—BRAC savings are faux savings as these savings are outside the accounting cycle; with a lot of additional $1 expenses front-loaded into the DOD budget for infrastructure improvements to support transferred personnel.

—Too much base reduction eliminates facilities needed to support surge capability. Some surplus is necessary.

Instead, A4AD recommends that the Congress consider an independent Defense Realignment Commission that would examine the aggregate national security structure. The commission could examine:

—Emerging threats;

—Foreign defense treaties and alliance obligations;

—Overseas and forward deployment requirements;

—Foreign defense aid;

—Defense partnerships with the State Department and other agencies, as well as nongovernmental organizations;

—Requisite missions and elimination of duplicity between the services;

—Current and future weapon procurement and development;

—Critical industrial base;

—Surge capability and contingency repository;

—Best utilization and force structure of Active and Reserve components;

—Regional or centralized training, and dual-purpose equipment availability; and

—Compensation, recruiting and retention, trends, and solutions.

In a time of war and force rebalancing, it is wrong to make cuts to the end strength of the Reserve components. We need to pause to permit force planning and strategy to take precedence over budget reductions.

COMPENSATION COMMISSION

Another recommendation in the President's budget is a commission to review deferred compensation. As structured, A4AD does not support this proposal either, but if considered:

—This should not be a BRAC-like commission. The Congress should not give up its authority.

—In one section of the President's budget, it suggests that the President will appoint all of the members on the commission. The Congress should share in appointments.

—While alternatives to current military retirement should be explored, A4AD does not support a two-tiered system where two generations of warriors have different benefit packages.

—An incentivized retirement option could be offered, rather than making any new mandatory system.

—Should a task force be appointed, A4AD recommends that individuals with military experience in both the Active and Reserve component compensation be among those appointed, as the administration has suggested that both regular and nonregular (Reserve) retirement should be the same.

UNFUNDED REQUIREMENTS

Earlier this year, the Joint Chiefs of Staff announced its decision to discontinue the practice of providing the Congress with formal lists of programs that were excluded from the President's budget request.

A4AD concurs with those Senators who wrote to the Secretary of Defense that the military's budgetary needs cannot be determined without the lists, known formally as the Unfunded Priorities Lists. These lists, which have effectively been an extension of the Pentagon's annual spending request for more than a decade, provide insight that may otherwise be overlooked.

In the past, A4AD has submitted unfunded recommendations for the service components of the Active and Reserve forces. Without such lists, it is difficult to make recommendations that provide the committee with additional information that spans even beyond the list.

NATIONAL GUARD AND RESERVE EQUIPMENT REQUIREMENTS

A4AD asks this subcommittee to continue to provide appropriations for unfunded National Guard and Reserve Equipment Requirements. The National Guard's goal is to make at least one-half of Army and Air assets (personnel and equipment) available to the Governors and Adjutants General at any given time. To appropriate funds to Guard and Reserve equipment would provide Reserve Chiefs with a flexibility of prioritizing funding.

FORCE STRUCTURE FUNDING

U.S. Army

Much of the media attention has been on the manpower cuts which could be between 72,000–80,000 soldiers over the next 6 years, along with a minimum of eight brigade combat teams. If sequestration occurs reports are that another 100,000 personnel could be cut. The problem faced by the Army is balancing between end strength, readiness, and modernization.

Examples of Army reductions in procurement are its M1A1 Abrams upgrade and Stryker vehicle program taking 84 percent and 57-percent cuts, respectively, in planned spending. Army cuts create strategic vulnerabilities.

To ignore the risk of a protracted ground campaign is a security gamble. The Army has provided between 50 to 70 percent of the U.S. deployable forces over the last 10 years.

Yet, 1 in 3 Active Army units do not have sufficient personnel to perform its missions, requiring personnel to be cross-assigned from one unit to another to accomplish missions. The Army Reserve and National Guard face similar challenges. Defense cuts will further impact the Army's ability to train and be ready. The Army needs $25 billion to reset its force.

Air power and technology may be a critical part of a strategy, but America's enemies won't fight the way America expects them to. Boots on the ground will remain a critical part of this Nation's defense.

U.S. Marine Corps

Proposed budget cuts and mission resets could clip USMC's triphibious flexibility. The USMC's capability to perform a combined mission of land, naval, and air attack could become unbalanced with the administration's plan to reset funding and missions to pre-war strategies, and build-down the Armed Forces.

A change in strategy announced by Secretary of Defense Leon Panetta would cut the USMC further than the 20,000 announced by the administration. Under consideration is the elimination of another infantry battalion and reducing some light-armored reconnaissance capability.

A4AD supports the House V–22 proposal to procure under a multiyear procurement contract that will save a proposed $852 million versus single-year contracts.

The USMC is facing critical shortages of stockpiled equipment such as radios, small arms, and generators. It needs about $12 billion to reset its force.

The past three Marine Commandants have emphasized that the USMC needs to get back to its naval roots as an amphibious force. The associations have concerns that the stated need for amphibious warships is a minimum of 33, and the likely cap is 30 ships.

U.S. Navy

Proposed defense cuts could reduce the number of navy ships to the point that China will become dominant in the Western Pacific. This reduction undercuts the new Defense Strategy Guidance.

Rather than growing the fleet to 330 ships, under sequestration analyst warns that the fleet could drop to as few than 230 ships. The Navy is tempted to retire ships early to reduce manpower requirements, but this reduction also will reduce capability.

One in five ships when inspected is found not to be combat ready or is severely degraded. The combatant commanders ask for 16 attack submarines on a daily basis, but the USN can only provide 10. USN's repair backlog is $367 million.

The Navy could lose some of its most important shipbuilding industry partners if it slows down construction schedules.

A4AD applauds the House for reinstating 3 of the 4 cruisers scheduled to be retired. These are cruisers with the Aegis Combat System that is suitable for the at-sea missile defense mission. This provides a flexible option to a land-based site.

U.S. Air Force

The U.S. Air Force's (USAF) fleet is now the oldest it has ever been, and sequestration cuts will either reduce the number of units sharply, or eliminate the USAF modernization. Defense cuts will affect more than 20 USAF acquisition programs. Sequestration will have a detrimental effect on all of the Air Force's procurements, including new refueling tankers, tactical fighter jets, remotely piloted aircraft, and long-range strike bombers.

The average age of a strategic bomber is 34 years. Cutting funds for a new USAF bomber would seriously setback the progress of a replacement.

The Air Force plans to drop 500 aircraft from its inventory in the near future. This is caused by retirement of airplanes, elimination of close combat missions, and delays in procuring replacements. The USAF is cutting F–15 and F–16 fighters by more than 200 aircraft before replacement F–35s are available.

The majority of these cuts are from the Air National Guard and Air Force Reserve, affecting air sovereignty and surge capability.

The "Air Force Magazine" reports that the USAF's end-strength is 7-percent smaller than it was 7 years ago, yet the personnel costs for this smaller force have risen 16 percent. USAF would have to cut 47,000 airmen out of its total force just to hold personnel spending at a constant rate between fiscal year 2011 and fiscal year 2017. The Air Force showed that a high percentage of the cuts would be taken out of its Reserve components.

A4AD commends the House Armed Services Committee for delaying the proposed cuts to the Air Reserve Components until the Secretary of the Air Force provides supporting data, and details as to the affects of such cuts on National Security. A4AD hopes that Senate will provide similar direction to DOD.

According to Pentagon reports, the proposed fiscal year 2013 budget calls for a 12-percent cut in aircraft programs. Aircraft procurement for the Air Force, Navy, and Marine Corps, and the Army decreased from $54.2 billion in fiscal year 2012 to a budget request of $47.6 billion in fiscal year 2013.

CONCLUSION

A4AD is a working group of military and veteran associations looking beyond personnel issues to the broader issues of National Defense. This testimony is an overview, and expanded data on information within this document can be provided upon request.

Thank you for your ongoing support of the Nation, the Armed Services, and the fine young men and women who defend our country. Please contact us with any questions.

Chairman INOUYE. Thank you very much, Captain. I can assure you that we are doing our very best to avoid sequestration, because if that ever happens then this hearing is for naught, and in the process we may have to take some painful cuts, make some painful decisions. But I can assure you we'll do our best.

Thank you very much.

Now may I call upon Major General Andrew Davis.

STATEMENT OF MAJOR GENERAL ANDREW DAVIS, U.S. MARINE CORPS (RETIRED), EXECUTIVE DIRECTOR, RESERVE OFFICERS ASSOCIATION OF THE UNITED STATES

General DAVIS. Chairman Inouye and Senator Cochran: The Reserve Officers Association (ROA) thanks you for the invitation to appear and give testimony. I am retired Marine Major General Drew Davis, the Executive Director of Reserve Officers Association. I am speaking on behalf of the Reserve Enlisted Association (REA).

ROA and REA are concerned about how the Congress and the Pentagon will meet the requirements set by the Budget Control Act of 2011 and the resulting cuts to the Defense budget. With the Pentagon looking to reduce the Defense budget, a risk is that the services will make disproportionate cuts to the Reserve component to protect active duty roles, missions, and end strengths.

Army Vice Chief of Staff General Lloyd Austin told the Senate that with sequestration the Army would likely lose another 100,000 troops on top of the 72,000 cuts already planned. He said that one-half of these cuts would be in the National Guard and the Army Reserve.

Cutting one reservist only provides 35 percent of the cost savings when compared to the reduction of an active duty rifleman, airman, or sailor.

As they have shown after 10 years of war, Reserve and Guard perform their missions on par with active duty, at less overhead and infrastructure cost. They require no base housing and no medical care, and their retirement benefit is deferred to age 60. To ignore the cost efficiencies of the Reserve component is a disservice to the American taxpayer and violates the axioms of strategic planning for our Nation's defense.

Additional further cost savings are found when civilian knowledge and proficiencies can be called upon at no training cost to the military.

With the Pentagon and the Congress examining our Nation's security, it would be incorrect to discount the Reserve components' abilities and cost efficiencies. The Reserve strength of these part-time warriors provides a cost-saving solution and are an area to retain competencies for missions not directly embodied in the administration's new strategic guidance.

For reversibility to succeed we will need a viable Reserve component. The Reserve and National Guard are no longer just a part-time strategic force, but contribute to our Nation's operational ability to defend itself, project power, and perform needed noncombat missions.

Nearly 850,000 Reserve and Guard members have been activated and deployed since September 11, 2001, with more than 275,000 having done so two times or more. By throwing away this required expertise and can-do attitude, we undermine the total force at the same time.

Already, the Air Force and Navy are using their Reserve components as bill-payers. ROA and REA thank those members of this committee who delayed the recommended cuts by the Air Force of Reserve component aircraft and facilities. Experienced warriors are returning to their Reserve component training sites and are finding aging facilities and obsolete and battle-damaged equipment. To remain robust and relevant, they need to have the same type of equipment or simulators for training that they used during overseas missions. If the Reserve component is simply put on the shelf, these volunteer young men and women will walk away.

ROA and REA's written testimony includes lists of unfunded requirements that we hope this subcommittee will fund. But we also urge this subcommittee to specifically identify funding for both the services' Reserve forces and the National Guard exclusively to train and equip the Reserve components by providing funds for the National Guard and Reserve equipment appropriation. Just because the services did not submit a wish list does not mean there are no wishes or needs.

PREPARED STATEMENT

In addition, we hope that the chairman reconsiders the military construction appropriations to the Reserve components, even though that subcommittee has marked up its bill. Our written testimony includes dollar recommendations.

ROA and REA thank you again for your consideration of our testimony and we look forward to working with this committee.

[The statement follows:]

PREPARED STATEMENT OF MAJOR GENERAL ANDREW DAVIS

The Reserve Officers Association of the United States (ROA) is a professional association of commissioned and warrant officers of our Nation's seven uniformed services and their spouses. ROA was founded in 1922 during the drawdown years following the end of World War I. It was formed as a permanent institution dedicated to national defense, with a goal to teach America about the dangers of unpreparedness. When chartered by the Congress in 1950, the act established the objective of ROA to: ". . . support and promote the development and execution of a military policy for the United States that will provide adequate National Security". The mission of ROA is to advocate strong Reserve components and national security and to support Reserve officers in their military and civilian lives.

The Association's 58,000 members include Reserve and Guard soldiers, sailors, marines, airmen, and coastguardsmen, who frequently serve on active duty to meet critical needs of the uniformed services and their families. ROA's membership also includes officers from the U.S. Public Health Service and the National Oceanic and Atmospheric Administration, who often are first responders during national disasters and help prepare for homeland security. ROA is represented in each State with 54 departments plus departments in Latin America, the District of Columbia, Europe, the Far East, and Puerto Rico. Each department has several chapters throughout the State. ROA has more than 450 chapters worldwide.

ROA is a member of The Military Coalition, where it co-chairs the Guard and Reserve Committee. ROA is also a member of the National Military/Veterans Alliance. Overall, ROA works with 75 military, veterans, and family support organizations.

The Reserve Enlisted Association (REA) is an advocate for the enlisted men and women of the United States Military Reserve Components in support of national security and homeland defense, with emphasis on the readiness, training, and quality-of-life issues affecting their welfare and that of their families and survivors. REA is the only joint reserve association representing enlisted reservists—all ranks from all five branches of the military.

INTRODUCTION

On behalf of the 1.1 million members of the Reserve and National Guard, the ROA and the REA thank the subcommittee for the opportunity to submit testimony on budgeting issues affecting serving members, retirees, their families, and survivors.

The associations would like to further thank those Senators who have been working to postpone planned cuts to Reserve component (RC) aircraft by the Air Force. A proper analysis needs to be done before premature action is taken that could encumber our national security.

The title 10 Reserve and National Guard are no longer just a part-time strategic force but are an integral contributor to our Nation's operational ability to defend itself, assist other countries in maintaining global peace, and fight against overseas threats. They are an integrated part of the total force, yet remain a surge capability as well.

At a time that the Pentagon and the Congress are examining our Nation's security, it would be incorrect to discount the RC abilities and cost efficiencies. Instead, these part-time warriors provide a cost-savings solution and an area to retain competencies for missions not directly embodied in the administration's new strategic policy, "Sustaining U.S. Global Leadership: Priorities for a 21st Century Defense".

ROA and REA are concerned that as the Pentagon strives to achieve the administration's goals for this new strategic policy, it is not seriously considering the available assets and cost efficiencies of the RC, and that it views the Reserve and National Guard as a bill payer instead.

The Congress, starting with the leadership of this subcommittee, should insist on a methodical analysis of suggested reductions in missions and bases before budgeting for such changes. Haste creates mistakes.

PROVIDE AND EXECUTE AN ADEQUATE NATIONAL SECURITY

The ROA is chartered by the Congress "to support and promote the development and execution of a military policy for the United States that will provide adequate national security".

Requested action:

—Hold congressional hearings on the new policy of "Sustaining U.S. Global Leadership: Priorities for the 21st Century Defense".

—Seek reconciliation to offset Defense sequestration budget cuts.

—Study the impact of manpower cuts to Army and Marine Corps on national security.

—Avoid simple parity cuts of components without analyzing the best Active-Reserve balance.

—Maintain robust and versatile all-volunteer Armed Forces that can accomplish its mission to defend the homeland and U.S. interests overseas.

ROA and REA question the current spending priorities that place more importance on the immediate future, rather than first doing a short- and long-term threat analysis. The result of such a budget-centric policy could again lead to a hollow force whose readiness and effectiveness is degraded.

ROA and REA share concerns about reductions in the Department of Defense, while proposed budgets for other Federal agencies increase. An example of this is the $13.4 billion budget increase for the Department of Veteran Affairs (VA). Of this, $10.6 billion is an increase in mandatory funding. When ROA asked the VA's Chief Financial Officer, Todd Grams, what offset is being made to allow this increase, his response was that no offset was needed as all but $1 billion were for existing programs.

While some VA increase is obviously needed with the ever increasing number of service-connected veterans who are disabled, injured, or ill, every agency should be fiscally responsible to help balance the budget and reduce the ever-growing deficit.

Serving members, retirees, families, and survivors are in effect being taxed by defense reductions to be the dollar offsets for other departments. Not only is this unfair, but by making cuts to national security, it puts future warriors at a greater risk.

RESERVE STRENGTH THRU EFFICIENCY

"With roughly 1.4 [million] Active-Duty servicemembers, 1.2 million Reserve-component members and likely future missions worldwide," Dennis McCarthy, then-Assistant Secretary of Defense for Reserve Affairs told ROA, "the military will need to continue to rely on reserve strength."

The Reserve forces are no longer a part-time strategic force but are an integral contributor to our Nation's operational ability to defend our soil, assist other countries in maintaining global peace, and fight in overseas contingency operations, as demonstrated by the last 10 years of war. The Reserve and National Guard should not be arbitrarily cut from the defense strategy.

Rather than be limited by historical thinking, and parochial protections, creative approaches should be explored. The RC needs to continue in an operational capacity because of cost efficiency and added value. The cost of the Reserve and National Guard should not be confused with their value, as their value to national defense is incalculable.

The RCs remain a cost-efficient and valued force. It is just a small percentage of the total services budget:

—Army Reserve: 7 percent of the Army budget; 18 percent of the force.

—Army National Guard: 14 percent of the Army budget; 32 percent of the force.

—Marine Forces Reserve: 6 percent of the United States Marine Corps (USMC) budget; 16.5 percent of the force.

—Navy Reserve: 7 percent of the United States Navy budget; 17 percent of the force.

—Air Force Reserve: 4 percent of the Air Force (AF) budget, 14 percent of the force, and 20 percent of the capability.

—Air National Guard: 6 percent of the AF budget and 21 percent of the force.

Value, on the other hand, is more intangible to calculate. The RC fills an ongoing need for a surge capability as an insurance policy against worse-case scenario's. Reserve and National Guard members give the armed forces access to civilian skills that would prove too expensive for the uniformed services to train and maintain.

With less than 1 percent of the U.S. population serving in uniform, the RC also provides a critical link to American communities.

The Reserve and National Guard should also be viewed as a repository for missions and equipment that aren't addressed in the administration's new strategic policy. They can sustain special capabilities not normally needed in peacetime.

Part of the President's budget includes planned end-strength reductions for both the Army and Marine Corps, by 80,000 and 20,000, respectively. It should be remembered that individuals cannot be brought quickly on to active duty on a temporary basis, as it is an accumulation of experience and training that is acquired over years that becomes an asset for the military. The Reserve is also a repository for these skills.

To maintain a strong, relevant, and responsive Reserve force, the Nation must commit the resources necessary to do so. Reserve strength is predicated on assuring the necessary resources—funding for personnel and training, equipment reconstitution, and horizontal fielding of new technology to the RC, coupled with defining roles and missions to achieve a strategic/operational Reserve balance.

NATIONAL GUARD AND RESERVE EQUIPMENT APPROPRIATION

Once a strategic force, the RCs are now also being employed as an operational asset; stressing an ever greater need for procurement flexibility as provided by the National Guard and Reserve Equipment Appropriations (NGREA). Much-needed items not funded by the respective service budget are frequently purchased through NGREA. In some cases, it is used to procure unit equipment to match a state of modernizations that aligns with the battlefield.

With the active component (AC) controlling procurement, a risk exists where Defense planners may be tempted to put the National Guard and title 10 Reserve on the shelf, by providing them "hand me down" outmoded equipment and by underfunding training. NGREA gives the Reserve chiefs some funding control.

The Reserve and National Guard are faced with the ongoing challenges of how to replace worn out equipment, equipment lost due to combat operations, legacy equipment that is becoming irrelevant or obsolete, and, in general, replacing what is lost in combat, or aged through the abnormal wear and tear of deployment. The RCs benefit greatly from a National Military Resource Strategy that includes an NGREA.

The Congress has provided funding for the NGREA for more than 30 years. At times, this funding has made the difference in a unit's abilities to carry out vital missions.

ROA thanks the Congress for approving $1 billion for NGREA for fiscal year 2012, but more dollars continue to be needed. ROA urges the Congress to appropriate into NGREA an amount that is proportional to the missions being performed, which will enable the RC to meet its readiness requirements.

MILITARY CONSTRUCTION

ROA and REA attempted to submit testimony to an earlier hearing on military construction by the Subcommittee on Military Construction and Veterans Affairs, and other related agencies, but the associations were told to submit this during the public witness hearing.

Unfortunately, the Military Construction and Veterans Affairs, and other related agencies marked up their portion of the Senate version of the appropriations bill on May 15. It is hoped that the Chairman will include some of the following information in his Chairman's markup.

Requested Action.—ROA and REA urge the Congress to continue appropriating funds for Military Construction budgets for the Reserve and National Guard.

Military Construction funding has not generally kept pace with essential RC facility modernization, conversion, and replacement requirements. In fiscal year 2012, Military Construction for the RC was appropriated $1.2 billion, which was $223 million less then the fiscal year 2011 enacted level. The RCs indicated they need a higher level of Military Construction funding in fiscal year 2013.

The RC's mission has changed from being primarily strategic reserves and "weekend warriors" to being an operational reserve. The RC now has a required high level of mission readiness which needs to be supported by functional training and facilities for current and future needs. They must train troops, maintain facilities and prepare troops postdeployments to return to civilian life. Additionally, families are supported throughout the force regeneration cycle phases. All of these initiatives require maintaining, renovating, and modernizing facilities.

As morale and combat readiness can be significantly affected by inadequate facilities, it is prudent to sustain fiscal year 2011's level of improvement (except the Air Force) in funding and allocation of projects in fiscal year 2013.

Five-year project backlog:

Army National Guard.—Approximately $1.8 billion.

Air National Guard.—Approximately $660 million.

Army Reserve.—Approximately $1 billion.

Air Force Reserves.—Approximately $170 million.

Navy and Marine Corps.—Approximately $240 million.

In 2011, the U.S. Senate found that National Guard Army Reserve facilities average more than 40 years in age. Other RCs suffer similar challenges with aging infrastructure. Military Construction requests fund the Reserve's most critical facilities and support total force transformation. The Reserve and National Guard will be realigning its forces to operational missions to provide increased combat service, while the active-duty end strengths are being reduced.

BASE CLOSURE AND REALIGNMENT COMMISSION

The President's budget recommends two more rounds of base closures. ROA and REA do not support such a base closure and realignment (BRAC) recommendation. If any action is taken, the emphasis should be placed on realignment rather than closure.

The association concerns are:

—BRAC savings are faux savings as these savings are beyond the congressional budget accounting cycle; with a lot of additional dollar expenses front loaded into the Defense budget for infrastructure improvements to support transferred personnel.

—Too much base reduction eliminates facilities needed to support surge capability, some surplus is good.

—Reserve and National Guard facilities should not be included, as was the case in BRAC 2005 when RC facilities were closed to reduce the risk of closure to active duty facilities.

ASSOCIATION PRIORITIES

Calendar year 2011 legislative priorities are:

—Recapitalize the total force to include fully funding equipment and training for the National Guard and Reserves.

—Ensure that the Reserve and National Guard continue in a key national defense role, both at home and abroad.

—Provide adequate resources and authorities to support the current recruiting and retention requirements of the Reserves and National Guard.

—Support citizen warriors, families and survivors.

Issues To Help Fund, Equip, and Train

Advocate for adequate funding to maintain national defense during times of war and peace.

Regenerate the RC with field compatible equipment.

Improve and implement adequate tracking processes on National Guard and Reserve appropriations and borrowed RC equipment needing to be returned or replaced.

Fully fund the military pay appropriation to guarantee a minimum of 48 drills and 2 weeks of training.

Sustain authorization and appropriation to NGREA to permit flexibility for Reserve chiefs in support of mission and readiness needs.

Optimize funding for additional training, preparation and operational support.

Keep Active and Reserve personnel and operation and maintenance funding separate.

Issues To Assist Recruiting and Retention

Support continued incentives for affiliation, re-enlistment, retention, and continuation in the RC.

Pay and Compensation

Simplify the Reserve duty order system without compromising drill compensation.

Offer professional pay for RC medical professionals, consistent with the AC's pay.

Eliminate the 1/30th rule for Aviation Career Incentive Pay, Career Enlisted Flyers Incentive Pay, Diving Special Duty Pay, and Hazardous Duty Incentive Pay.

Education

Continue funding the GI bill for the 21st century.

Healthcare

Provide medical and dental readiness through subsidized preventive healthcare.

Extend military coverage for restorative dental care for up to 90 days following deployment.

Provide funding for transitional TRICARE Reserve Select healthcare for those beneficiaries being released from drill status.

Spouse Support

Repeal the Survivor Benefits Plan—Dependency Indemnity Clause offset.

NATIONAL GUARD AND RESERVE EQUIPMENT ACCOUNTS

It is important to maintain separate equipment and personnel accounts to allow Reserve component chiefs the ability to direct dollars to vital needs.

Key issues facing the Armed Forces concerning equipment:

—Procuring new equipment for all U.S. forces.

—Modernize by upgrading the equipment already in the inventory.

—Replacing the equipment deployed from the homeland to the war.

—Making sure new and renewed equipment gets into the right hands, including the RC.

Reserve component equipping sources:

—Procurement.

—Cascading of equipment from AC.

—Cross-leveling.

—Recapitalization and overhaul of legacy (old) equipment.

—Congressional add-ons.

—NGREA.

—Supplemental appropriation, such as overseas contingency operations funding.

End Strength

The ROA would like to place a moratorium on any potential reductions to the National Guard and Reserve manning levels. Manpower numbers need to include not only deployable assets but individuals in the accession pipeline. ROA urges this subcommittee to fund the support of:

—Army National Guard of the United States, 358,200.

—Army Reserve, 206,000.

—Navy Reserve, 66,200.

—Marine Corps Reserve, 39,600.

—Air National Guard of the United States, 106,700.

—Air Force Reserve, 71,400.

—Coast Guard Reserve, 10,000.

In a time of war and force rebalancing, it is wrong to make cuts to the end strength of the RCs. We need to pause to permit force planning and strategy to catch-up with budget reductions.

UNFUNDED RESERVE COMPONENT EQUIPMENT

ROA and REA agree with the Senate leadership that the Congress should be provided with a unfunded list from both Active and Reserve components. The below charts shows that the ground forces have the greatest backlog of unfunded equipment.

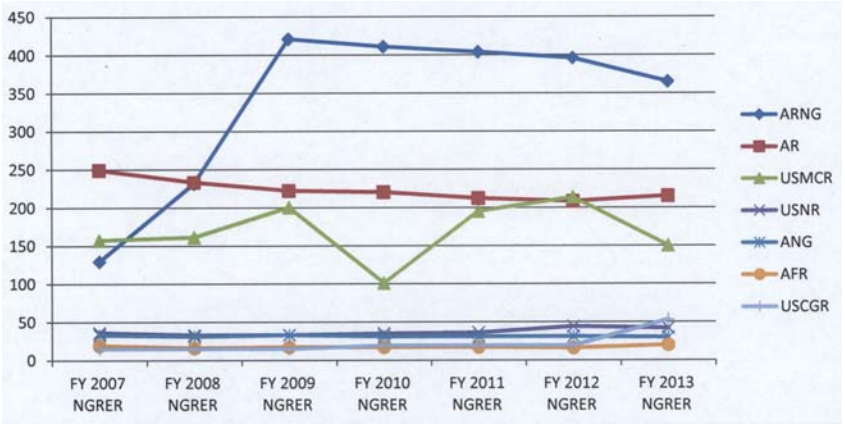


CHART 1.—Items of unfunded equipment reported in the National Guard and Reserve Equipment Report published by the Office of the Assistant Secretary of Defense for Reserve Affairs. Fiscal year 2013 could be the last year of publication if the Secretary of Defense insists on not further unfunded lists.

ARMY RESERVE COMPONENTS EQUIPMENT PRIORITIES

Army Reserve Unfunded Requirements

While the Army Reserve (USAR) has 91 percent of its equipment on-hand, only 67 percent of it is modernized, a decline of 2 percent from last year. More new production and recapitalized equipment is needed to close the gap with the active and the Army Guard.

An enduring operational force cannot be fully effective if it is underfunded. Theater-provided equipment has allowed the USAR to provide support during mobilization. The USAR rebuilt 70 percent of its 5-ton cargo trucks and 83 percent of its semitrailer tankers to meet its mission.

Top USAR equipping challenges of an operational Reserve are:

—Modernize and sustain equipment in a resource-constrained environment.

—Equip USAR as an operational force capable of overseas, homeland defense, and natural disasters.

—Modernize the tactical wheeled vehicle (TWV) fleet.

—Achieve full transparency for equipment procurement and distribution.

—Expand the use of simulators to mitigate equipment shortfalls and gain training efficiencies.

USAR UNFUNDED EQUIPMENT

[In millions of dollars]

	Amount
Force protection:	
Alarm Biological Agent [BIDS] M31E2, 63 required	$69
Armored Security Vehicle, 27 required	21
Combat logistics and mobility:	
Loader Skid Steer: Type II, 40 required	1.2
Rough Terrain Contain Handler, 39 required	28.9
Ground vehicles:	
Truck Cargo, 5-ton, 771 required	154
Truck Dump, 10-ton, 213 required	42.6
Truck, Expandable Van, 141 required	28.2
Soldier systems:	
Medium Weapon Thermal Sights [MWTS]AN/PAS–13(V)2, 1,600 required	28.2
Thermal Sights AN/PAS–13B9V)1, 1,500, required	25.5
Javelin Command Launch Unit, 50 required	11.5
Helicopter, Utility, UH–60L, 8 required	38.4

Simulators

The use of simulations and simulators minimizes turbulence for USAR soldiers and their families caused by training demands during the first 2 years of the Army Force Generation process by enabling individuals and units to train at their home station and during exercises in a safe environment without the increased wear and tear on equipment.

Army National Guard Unfunded Equipment Requirements

The on-hand percentage for all equipment is dropped from 92 percent to 87 percent, and this does not include requirements for training. Part of this requirement is dual use, with critical items of equipment being needed for homeland missions with critical use inventory at 89 percent.

Top Army National Guard equipping challenges are:

—Equip units for pre-mobilization training and deployment.
—Equip units for their homeland missions.
—Achieve full transparency for equipment procurement and distribution.
—Modernize ARNG TWV fleet.
—Improve interoperability with AC forces.
—Modernize the ARNG helicopter fleet.

ARNG UNFUNDED EQUIPMENT

[In millions of dollars]

	Amount
Strike:	
Radar Sets AN/TPQ −36(V)10 and −37(V)9, 10/9 required	$231
Field support:	
Containerized kitchen, 69 required	15.5
Bradley Fighting Vehicle, Infantry, M2A3, 45 required	198
Bradley Fighting Vehicle, Cavalry, M3A3, 29 required	116.5
Generator sets, 659 required	8.2
Air defense:	
Radar set: Sentinel AN/MPQ–64	66.5
Aviation:	
Helicopter, Attack AH–64D, 16 required	402
Helicopter, Utility, UH–60L, 55 required	267
Light Utility Helicopter, UH–72A, 34 required	132.6
Helicopter, Cargo CH–47F, 19 required	570
Medical field system:	
MES Combat Medic, 463 required	1.6
Medical Communications for Combat Casualty Care [MC4] Program	4.6

MARINE CORPS RESERVE UNFUNDED PRIORITIES

Marine Forces Reserve (MFR) has two primary equipping priorities—outfitting individuals who are preparing to deploy and sufficiently equipping units to conduct home station training. Individuals receive 100 percent of the necessary war fighting equipment. MFR units are equipped to a level identified by the Training Allowance (TA). MFR units are equipped with the same equipment that is utilized by the AC, but in quantities tailored to fit reserve training center needs. It is imperative that MFR units train with the same equipment they will utilize while deployed.

Top MFR equipping challenges are:

—Implementing Results of the Strategic Review from the Force Structure Review Group; 40 percent of USMCR units may be impacted by this review.
—Transitioning the KC–130 airframe.
—Providing units the "right amount" of equipment to effectively train in a pre-activation environment.
—Achieving USMCR goal that the Reserve TA contains the same equipment as the AC.
—Resetting and modernizing the MFR to prepare for future challenges.

USMCR UNFUNDED EQUIPMENT

[In millions of dollars]

	Amount
Aviation:	
KC–130J Super Hercules Aircraft Tankers, 2 required	$184.6
UH–1Y Helicopter, Utility, 6 required	184.8
MV–22 B Tiltrotor Osprey, 2 required	167.5
USMCR Simulators:	
KC–130J Weapons System Trainer, 2 required	50
UH–1 Trainer, 1 required	16.5
Ground Transport:	
Truck cargo, 22.5 ton, LVSR, 8 required	3.4
Lighted Armed Vehicle, Command/Control, 5 required	3
Light Armored Vehicles—LAV–25, procure 1 remaining	3.2

AIR RESERVE COMPONENTS EQUIPMENT PRIORITIES

The Air Reserve Component (ARC) is made up of both the Air Force Reserve (AFR) and the Air National Guard. Over the last 10 years they have met all tasking, and were not asked to perform at full capacity.

ARC alone can cover:

—75 percent of Combat Air Force tasking.

—75 percent of Mobility Air Force tasking.

—50 percent of Aerial Refueling tasking.

Air Force Reserve Unfunded Requirements

AFR while fully integrated with the active for air, space, and cyberspace, has higher sustainment needs across its fleet. Sustaining operations on five continents, the resulting wear and tear weighs heavily on aging equipment.

AFR has some specialized capabilities not found in regular AF units. These include support of counternarcotics efforts, weather reconnaissance including hurricane penetration, aeromedical evacuation, aerial spray capabilities, and forest fire suppression.

Yet AF proposes cuts from the AFR. Even though the AF announced that the AFR will be reduced by 900 personnel in fiscal year 2013, more than 3,000 jobs will be realigned.

There will be a risk of further reductions at some locations. There are 2,093 Reserve and 734 full-time staff (FTS) reductions shown in AF announcements at six AFR flying locations. These include:

——563 Lackland, Texas (−385 reserve/−178 FTS in C–5s);

——580 Barksdale, Louisiana (−409/−171 closing AFR A–10 combat unit recently returned from Afghan);

——53 Homestead, Florida (−40/−13 reducing RC F–16s);

——1,448 Pittsburgh, Pennsylvania (−1,122/−326 closing Wing and Base);

——53 Fort Worth, Texas (−40/−13 reducing RC F–16s); and

——130 Youngstown, Ohio (−97/−33 reducing C–130s).

The closure of Air Reserve Station Pittsburg challenges the congressional mandate and authority of base closure with more than 300 Federal employees.

Next in fiscal year 2014 and out, the plan to close the entire C–130 wing at Maxwell, Alabama; the entire C–130 wing/base at Minneapolis-St. Paul, Minneapolis; a C–130 flying squadron at Keesler, Mississippi; and the C–130 wing/base at Niagara, New York.

These cuts will affect the surge and reversibility capabilities of the AF. In these proposed reductions, the AF does not seem to understand the importance of population/reserve demographics to cost-effective Reserve unit locations. ROA and REA hope that this committee supports actions by the House to delay and proposed reductions for a year to properly review these recommendations.

Top AFR equipping challenges:

—C–5 Maintenance.

Defensive Systems.—LAIRCM, ADS, and MWS: equip aircraft lacking adequate infrared missile protection for combat operations.

Data Link and Secure Communications.—Data link network supporting image/video, threat updates, and SLOS/BLOS communications for combat missions.

UNFUNDED EQUIPMENT

[In millions of dollars]

	Amount
Aviation:	
Large aircraft infrared countermeasures	$4
F–16 Systems, CDU, Combined AIFF With Mode 5/S, Sim Trainer Upgrade	2
C–17A upgrades	10
C–130 system upgrades	13.7
KC–135 modifications	3.8
Telecommunication:	
National Airspace System	1.3
Air and Space Operations Center	2
Ground transportation:	
Medium tactical vehicles	2.6

Air National Guard Unfunded Equipment Requirements

The immediate threat the Air National Guard (ANG) was the threatened reduction of squadrons and aircraft proposed by the Air Force as cost saving measures. This included the reduction of 5,100 ANG billets. ROA and REA hope that this committee support actions by the House to delay and proposed reductions for a year to properly review these recommendations.

PROPOSED CUTS TO THE ANG

C–130 H intratheater airlift	21 aircraft	Provides 40 percent of the total fleet.
C–5A heavy intertheater airlift	13 aircraft	Provides 25 percent of outsize cargo airlift.
C–27J short-to-medium range tactical airlift	15 aircraft	Provides 100 percent of the total fleet.
A–10C ground support fighter	63 aircraft	Performed 66 percent of the missions.
F–16 C Fighter	20 aircraft	Since 2003, 3 percent of CentAF taskings.
C–21 A operational support	24 aircraft	Provides 40 percent of the AF fleet.

Given adequate equipment and training, the ANG will continue to fulfill its total force obligations. On-hand equipment is just under 91 percent of requirements with dual use equipment being 88 percent of ANG assets, but some major items of equipment are nearing 30 years of use. Operations tempo has been high and prolonged, requiring equipment to be modernized and recapitalized concurrently.

ANG equipping challenges:

—Modernize aging aircraft and other weapons systems for both dual-mission and combat deployments.

—De-conflict dual use equipment when required for both Federal and domestic missions.

—Acquire equipment to satisfy requirements for domestic operations in each Emergency Support Function (ESF).

—Define an Air Force validation process for both Federal and State domestic response needs.

—Program aging ANG F–16 aircraft for the Service Life Extension Program (SLEP).

An ANG wing contains not only aircraft but fire trucks, forklifts, portable light carts, emergency medical equipment including ambulances, air traffic control equipment, explosives ordinance equipment, etc., as well as well-trained experts—valuable in response to civil emergencies.

UNFUNDED EQUIPMENT

[In millions of dollars]

	Amount
Command and Control:	
Control and reporting center systems	$6.6
Air Defense Tactical Satellite Communications	1.2
Aviation:	
C–17 large aircraft infrared countermeasures and detection	36.4
C–38 replacement aircraft	62
C–40C Procurement	103
C–130 H/J Advanced LAIRCM/Missile Warning System	58.2

UNFUNDED EQUIPMENT—Continued

[In millions of dollars]

	Amount
F–15 Advance Digital Warning/Radio Frequency CSM	85.7
F–16 advanced targeting pod upgrades	83.5
Dual Mission: Rapidly deployable RPA capability	28.5

NAVY RESERVE UNFUNDED PRIORITIES

Active Reserve Integration (ARI) aligns active and Reserve component units to achieve unity of command. Equipment used is the RC is often experiencing service life of more than 20 years for many platforms, adding sustainability and interoperability challenges, leading to training and deployment challenges for mobilization ready individuals and units. The United States Navy Reserve (USNR) has been the primary provider of Individual Augmentees for the overseas contingency operations filling Army and Air Force assignments.

Expeditionary missions include security forces, construction battalions, cargo handling, and warehouse and fuel operations. The USNR contributes 1/3 of the personnel in support of Special Warfare operations. A new mission will be Maritime Civil Affairs which will be doubling the number of units in the near future.

Top USNR equipping challenges are:

—Aircraft procurement (C–40A, P–8, KC–130J, and C–37B).

—Expeditionary equipment procurement (MESF, EOD, NCF, NAVELSG, MCAST, EXPCOMBATCAM, and NEIC).

—Navy special warfare equipment.

USNR UNFUNDED EQUIPMENT

[In millions of dollars]

	Amount
Aviation:	
C–40 A Combo Cargo/Passenger Airlift, 4 required	$340
KC–130J Super Hercules Aircraft Tankers, 2 required	162
C–37 B (Gulf Stream) Aircraft, 1 required	64
H–53 E Sea Dragon, Mine Warfare	24
F–5F Adversarial Aircraft Modification	4.3
USNR Expeditionary:	
Maritime Civil Affairs Team, Equipment Allowance, 3 required	1
Tactical Vehicles	11.8
Civil Engineering Support Equipment	1.2
Materials Handling Equipment	1.2

[Dollars in millions]

Reserve component	Requirements	On-hand	Shortage	Percentage of required $$
ARNG	105,594.3	64,867.8	40,726.5	38.6
AR	27,283.6	16,634.9	10,648.7	39.0
USMCR	6,243.6	5,812.8	430.8	6.9
USNR	9,977.4	8,978.2	999.2	10.0
ANG	53,620.8	50,778.4	2,842.4	5.3
AFR	26,900.7	24,783.3	2,207.4	8.2
USCGR	51.1	26.1	25.1	49.0
Total	229,761.6	171,881.5	57,880.1	25.2

CHART 2.—"Beginning Fiscal Year 2013 Reserve Component Equipment $$$ Shortages" published by the Office of the Assistant Secretary of Defense for Reserve Affairs.

The Marine Corps Reserve (USMCR) reflects a 6.9 percent shortage of its major items; however, the USMCR is equipped to a home station training allowance only.

CONCLUSION

The operations in Iraq and Afghanistan have demonstrated the contributions to be made by the Reserve and National Guard. It the future they will continue to play role in missions to maintain national security.

This country cannot afford a strategy that writes them out of the picture. It makes sense to fully fund the most cost efficient components of the total force, its Reserve components.

The ROA, again, would like to thank the subcommittee for the opportunity to present our testimony. We are looking forward to working with you and supporting your efforts in any way that we can.

Chairman INOUYE. General, I can assure you that this subcommittee is well aware of the important role played by Reserve and Guard forces in Afghanistan and Iraq, and we will make certain that a study be carried out on base realignment and closure (BRAC) recommendations and equipment. Those are important items for this subcommittee.

Thank you very much, Sir.

General DAVIS. Thank you.

Chairman INOUYE. Our next witness is Ms. Karen Goraleski, representing the American Society of Tropical Medicine and Hygiene.

STATEMENT OF KAREN GORALESKI, EXECUTIVE DIRECTOR, AMERICAN SOCIETY OF TROPICAL MEDICINE AND HYGIENE

Ms. GORALESKI. Thank you, Mr. Chairman. Mr. Chairman and Ranking Member Cochran: My name is Karen Goraleski. I am the executive director of the American Society of Tropical Medicine and Hygiene (ASTMH). Thank you for the privilege of testifying before you today. I am here on behalf of our members, who are the world's leading experts in the research and treatment of tropical diseases, to respectfully request that the subcommittee expand funding for the Department of Defense's (DOD) efforts to develop new preventions, treatments, vaccines, and diagnostics that will protect our service men and women from infectious diseases in areas of the world where many serve now or may serve in the future.

ASTMH understands the rich return on this DOD investment. We are concerned that without the sustained resources needed to address health risks to our troops, we will also inadvertently hamper military mission success.

As a Nation, we must Americans' tax dollars wisely, and this particular DOD investment has legs. First, our military benefits, but so do Americans that travel for business, for vacation, for school and faith-based volunteer work. Every gain also helps reduce premature death and disability of those living in the developing world.

Infectious disease is the ever-present enemy. Our investments in new and effective tools must have a focus on today as well as tomorrow. The drugs and preventive measures used in earlier conflicts are quickly becoming resistant and we can always bank on Mother Nature to deliver new diseases.

I want to highlight the smart and cost-effective work being done at two facilities within the DOD, Walter Reed Army Institute of Research (WRAIR), and the Naval Medical Research Center (NMRC).

I will begin with WRAIR, which effectively leverages its modest infectious disease research budget through domestic and international partnerships, public and private, and they are continually seeking out new ones. WRAIR's portfolio includes malaria vaccine and drug development, malaria vector control, drug development for leishmaniasis, a tropical disease transmitted by sand flies that is prevalent in Africa, West Asia, and the Middle East, enteric disease research, and HIV/AIDS research and treatment.

WRAIR's success relies heavily on collaborations, as seen in the development of RTS,S with the malaria vaccine initiative and GlaxoSmithKline. Last fall, this large-scale phase 3 trial showed an approximate 50-percent efficacy in decreasing clinical episodes of malaria in African children. This is news we rightfully celebrate for children and parents living in malaria endemic countries. But for our military, right now RTS,S is not suitable as a vaccine for adults who have never experienced malaria as a child. This leaves us with more work to do in order to protect our troops, but it is work that is doable.

The NMRC works both in the United States and in its overseas medical research laboratories located in Peru, Egypt, and Cambodia. These labs offer outstanding scientific collaborations and create deep and lasting relationships in country. The labs also offer research and education opportunities that are filled by local citizens, who then in turn build in-country capacity.

Recently, Navy researchers announced the start of clinical trials for a dengue fever vaccine to protect our troops from this sometimes deadly virus found in tropical regions, and even recently found in the United States. This vaccine would be a game-changer in tropical medicine. No cure exists and right now treatment is only symptom management.

PREPARED STATEMENT

In closing, our military must be ready at any time to embark on a new mission, to a new location, which can mean exposure to new and emerging health threats. This and the vexing problem of drug resistance serve as stark reminders as to why our investments cannot stop and where additional investments are needed.

Thank you for this opportunity. ASTMH stands ready to serve as an expert resource to you. We are in this together.

[The statement follows:]

PREPARED STATEMENT OF KAREN GORALESKI, EXECUTIVE DIRECTOR OF AMERICAN SOCIETY OF TROPICAL MEDICINE AND HYGIENE

The American Society of Tropical Medicine and Hygiene (ASTMH)—the principal professional membership organization representing, educating, and supporting scientists, physicians, clinicians, researchers, epidemiologists, and other health professionals dedicated to the prevention and control of tropical diseases—appreciates the opportunity to submit written testimony to the Senate Defense Appropriations subcommittee.

ASTMH respectfully requests that the subcommittee expand funding for the Department of Defense's (DOD) longstanding efforts to develop new and more effective drugs, vaccines, and diagnostics designed to protect servicemembers from infectious

diseases including funding for the important research efforts at the Walter Reed Army Institute of Research (WRAIR) and the U.S. Naval Medical Research Center (NMRC).

DEPARTMENT OF DEFENSE RESEARCH PROTECTS THE U.S. MILITARY AND CIVILIANS AND CONTRIBUTES TO GLOBAL HEALTH

A core component of ASTMH membership supports the work of the DOD, and we understand first-hand the important role that research and development play in protecting our service men and women deployed abroad from the threat of infectious disease, as well as contributing significantly to civilian medical applications. Specifically, DOD infectious disease research contributes to the protection of:

—U.S. troops that are currently deployed or likely to be deployed in many tropical areas;
—The safety of U.S. citizens, working, traveling, participating in volunteer work, and vacationing overseas who are impacted by these same tropical diseases;
—Our country from agents responsible for these diseases, which could be introduced and become established in the United States (as was the case with West Nile virus), or might even be weaponized; and
—Citizens around the world who suffer disability and death from many of these same tropical diseases.

WALTER REED ARMY INSTITUTE OF RESEARCH

A large part of DOD investments in infectious disease research and development are facilitated through WRAIR. Between 2007 and 2010, WRAIR's Center for Infectious Disease Research performed more than $260 million of research for the DOD and had an additional $140 million in collaborative research work with external partner organizations. WRAIR has advanced their work through critical public-private partnerships and collaborative efforts with entities such as:

—GlaxoSmithKline and Sanofi;
—Nonprofit organizations such as the Bill & Melinda Gates Foundation, Medicines for Malaria Venture, and PATH; and
—Other U.S. agencies including Centers for Disease Control and Prevention, United States Agency for International Development, and National Institutes of Health.

WRAIR invests in:

—malaria vaccine and drug development;
—drug development for leishmaniasis;
—enteric disease research;
—vector control for malaria and other vector-borne infections; and
—HIV/AIDS research and treatment.

One example of WRAIR's successful work and collaboration includes the development of several significant and promising vaccine candidates, including RTS,S, developed with PATH Malaria Vaccine Initiative and GlaxoSmithKline, which recently underwent the first-ever large-scale Phase 3 trial for a malaria vaccine. In trials last year, the vaccine candidate decreases clinical episodes of malaria in children in Africa by approximately 50 percent. While we celebrate this news and the promise that it brings for children living in malaria-endemic countries, RTS,S is not suitable as a vaccine for adults who have never experienced malaria during childhood, such as our military personnel. As a result, there remains a significant need for continued research funding in order to achieve more robust results.

WRAIR is headquartered in Silver Spring, Maryland, and has research laboratories around the globe including:

—a public health reference laboratory in The Republic of Georgia;
—dengue fever clinical trials in the Philippines;
—malaria clinical studies and surveillance in Kenya;
—military entomology network field sites in Thailand, the Philippines, Nepal, Cambodia, Korea, Kenya, Ethiopia, Egypt, Libya, Ghana, Liberia, and Peru; and
—several other coordination efforts with national health ministries and defense units.

This diversity in research capacity puts WRAIR in a unique leadership position in research and development for tropical diseases—research that aids our military men and women as well as people living in disease-endemic countries.

UNITED STATES NAVAL MEDICAL RESEARCH CENTER

NMRC and its affiliated labs conduct basic and applied research in infectious disease. The Infectious Disease Directorate (IDD) of NMRC focuses on malaria, enteric

diseases, and viral rickettsial diseases. IDD has an annual budget exceeding $10 million and conducts research on infectious diseases that are considered to be a significant threat to our deployed sailors, soldiers, airmen, and marines.

The primary objective of the Navy Malaria Program is to develop a vaccine that kills the parasite during the first few days of development in the liver, before it breaks into the blood. The program is also investigating vaccines that would target blood-stage infection to limit the severity of symptoms associated with this stage. Both of these vaccines could alleviate much of the suffering caused by this parasite in tropical areas.

The research is enhanced by IDD's close working relationship with the Navy's three overseas medical research laboratories located in Peru, Egypt, and Indonesia. These laboratories, like those of WRAIR, afford diplomatic advancement through the close working relationships they have developed with governments and citizens of those countries. ASTMH has heard first-hand accounts of the successful diplomatic impact that both the WRAIR and NMRC overseas labs have on the communities where they are guests. Many of the researchers and staff who work in the labs are local to the area and speak highly of the role of the U.S. military labs.

TROPICAL MEDICINE AND U.S. MILITARY OPERATIONS

The term "tropical medicine" refers to the wide-ranging clinical, research, and educational efforts of physicians, scientists, and public health officials with a focus on the diagnosis, mitigation, prevention, and treatment of diseases prevalent in the areas of the world with a tropical climate. Most tropical diseases are located in sub-Saharan Africa, parts of Asia (including the Indian subcontinent), Central and South America, and parts of the Middle East. These are the same areas military troops are often deployed. Since many of the world's developing nations and economies are located in these areas, tropical medicine tends to focus on diseases that impact the world's most impoverished individuals.

CASE STUDIES—THE IMPORTANCE OF DEPARTMENT OF DEFENSE'S INFECTIOUS DISEASE RESEARCH EFFORTS

Malaria has resulted in the loss of more person-days among U.S. military personnel than to bullets during every military campaign fought in malaria-endemic regions during the 20th century.

Because servicemembers deployed by the U.S. military comprise a majority of the healthy adults traveling each year to malarial regions on behalf of the U.S. Government, the U.S. military has understandably taken a primary role in the development of anti-malarial drugs, and nearly all of the most effective and widely used anti-malarials were developed in part by U.S. military researchers. Drugs that now continue to save civilians throughout the world were originally developed by the U.S. military to protect troops serving in tropical regions during World War II, the Korean War, and the Vietnam War.

In recent years the broader international community has increased its efforts to reduce the impact of malaria in the developing world, particularly by reducing childhood malaria mortality, and the U.S. military plays an important role in this broad partnership. Nonetheless, military malaria researchers at NMRC and WRAIR are working practically alone in the area most directly related to U.S. national security: drugs and vaccines designed to protect or treat healthy adults with no developed resistance to malaria who travel to malaria-endemic regions. NMRC and WRAIR are working on the development of a malaria vaccine and on malaria diagnostics and other drugs to treat malaria—an especially essential investment as current malaria drugs face their first signs of drug resistance.

The latest generation of malaria medicines is increasingly facing drug-resistance. The most deadly variant of malaria—Plasmodium falciparum—is believed by the World Health Organization (WHO) to have become resistant to "nearly all antimalarials in current use". The malaria parasite demonstrates a notorious and consistent ability to quickly develop resistance to new drugs. Malaria parasites in Southeast Asia have already shown resistance to the most recently developed antimalarial drug, artemisin.

Developing new antimalarials as quickly as the parasite becomes resistant to existing ones is an extraordinary challenge, and one that requires significant resources before this becomes widespread, especially as United States military operations in malaria-endemic countries of Africa and Asia increase. Without new anti-malarials to replace existing drugs as they become obsolete, military operations could be halted in their tracks by malaria. The 2003 malaria outbreak affecting 80 of 220 marines in Liberia is an ominous reminder of the impact of malaria on military operations. Humanitarian missions also place Americans at risk of malaria, as evidenced

by several Americans contracting malaria while supporting Haitian earthquake relief efforts.

Leishmaniasis is a vector-borne disease that comes in several forms, the most serious of which is visceral leishmaniasis, which affects internal organs and can be deadly if left untreated. According to the WHO, more than 350 million people are at risk of leishmaniasis in 88 countries around the world. It is estimated that 12 million people are currently infected with leishmaniasis, and 2 million new infections occur annually. Co-infection of leishmaniasis and HIV is becoming increasingly common, and WHO notes that because of a weakened immune system, leishmaniasis can lead to an accelerated onset of AIDS in HIV-positive patients.

Because of leishmaniasis' prevalence in Iraq, DOD has spent significant time and resources on the development of drugs and new tools for the treatment of leishmaniasis. As more troops return from Iraq and Afghanistan, it is likely DOD and the Department of Veterans Affairs will see an increase in leishmaniasis cases in our soldiers. WRAIR discovered and developed Sitamaquine, a drug that, once completed, will be an oral treatment for leishmaniasis. While essential for the safety of our service men and women abroad, these types of innovations will also be extremely beneficial to the at-risk populations worldwide living in leishmaniasis-endemic countries.

Dengue fever ("breakbone fever"), according to the WHO, is the most common of all mosquito-borne viral infections. About 2.5 billion people live in places where dengue infection can be transmitted by mosquitoes, and last year we saw a few cases pop up in the United States. There are four different viruses that can cause dengue infections. While infection from 1 of the 4 viruses will leave a person immune to that strain of the virus, it does not prevent them from contracting the other three, and subsequent infections can often be more serious.

The DOD has seen about 28 cases of dengue in soldiers per year. While none of these cases resulted in the death of a soldier, hospitalization time is lengthy. Currently, there are several research and development efforts under way within the DOD both for treatments and vaccines for dengue.

U.S. GOVERNMENT ACTION IS NEEDED FOR MISSION READINESS

The role of infectious disease in the success or failure of military operations is often overlooked. Even a cursory review of U.S. and world military history, however, underscores that the need to keep military personnel safe from infectious disease is critical to mission success. Ensuring the safety of those men and women in future conflicts and deployments will require research on new tools. Additional funds and a greater commitment from the Federal Government are necessary to make progress in tropical disease prevention, treatment, and control.

Although several promising new infectious disease drugs are in development at WRAIR and NMRC, the U.S. Government's funding level for these programs has been anemic for several years. There are indications that the current budget process may decrease or not keep up with medical research inflation, let alone an increase in real dollars, despite burgeoning evidence that many of our military's current drugs are rapidly approaching obsolescence.

Fortunately, a relatively small amount of increased funding for this program would restore the levels of research and development investment required to produce the drugs that will safeguard U.S. troops. In relation to the overall DOD budget, funding for infectious disease research programs is very small. Cutting funding for this program would deal a major blow to the military's efforts to reduce the impact of these diseases on soldiers and civilians alike, thereby undercutting both the safety of troops deployed to tropical climates and the health of civilians in those regions.

ASTMH feels strongly that increased support for efforts to reduce this threat is warranted. A more substantial investment will help to protect American soldiers and potentially save the lives of millions of individuals around the world. We appreciate the opportunity to share our views in our testimony, and please be assured that ASTMH stands ready to serve as a resource on this and any other tropical disease policy matter.

Chairman INOUYE. Ms. Goraleski, I thank you very much for your testimony.

The Vice Chairman has a question to ask.

Ms. GORALESKI. Yes, Sir.

Senator COCHRAN. Ms. Goraleski, I know that you are aware of some collaboration between Walter Reed Hospital and the Univer-

sity of Mississippi research capacity through the Natural Products Research Center there. They're working to collaborate to get Walter Reed Army Institute to identify safe and effective drugs to treat tropical-related diseases and illnesses, which you mentioned in your testimony.

I was curious to know if you are aware of this and how effective any of these research efforts have been assumed to be, and whether or not we need to put more money into these efforts than what we have in this year's budget.

Ms. GORALESKI. Yes, Sir, I am aware of those collaborations. Those collaborations are really essential for us to move progress forward. The Federal Government cannot do it alone without multiple partnerships. I don't have the specifics on that research. I just know of it overall, that there is some interesting and productive developments. But I will certainly find out the details for you and make sure you get that immediately. Thank you.

Senator COCHRAN. Thank you very much. We appreciate your assistance to the subcommittee.

Ms. GORALESKI. You're welcome.

Chairman INOUYE. Thank you very much.

Now may I call upon Mr. John R. Davis, representing the Fleet Reserve Association.

STATEMENT OF JOHN R. DAVIS, DIRECTOR, LEGISLATIVE PROGRAMS FLEET RESERVE ASSOCIATION

Mr. DAVIS. My name is John R. Davis and I want to thank the subcommittee for the opportunity to express the views of the Fleet Reserve Association (FRA) today.

FRA supports legislation to exclude the Defense budget from sequestration and agrees with the Secretary of Defense Panetta, who said these sequestration cuts would, "do catastrophic damage to our military, hollowing out the force and degrading its ability to protect the country".

Defense accounts for 17 percent of the Federal budget but will receive 50 percent of the sequestration cuts. Less than 1 percent of the population is shouldering 100 percent of the burden of maintaining our military and national security, and the punitive funding reductions mandated by sequestration would force across-the-board cuts to all programs that could potentially threaten the all-volunteer force.

Ensuring adequate funding for the military health system and maintaining the current retirement system are top legislative priorities for the association. This is reflected in responses to the association's 2012 survey, completed in February by more than a thousand current and former servicemembers, who cited retirement and military health programs as the most important benefits. Over the past several years, healthcare has consistently been a top concern for all segments of the military community, that being the Active Duty, Reserve component, veterans, and retirees.

This year's survey, however, revealed that active duty and reservists viewed the military retirement above healthcare and pay.

FRA believes that the administration's fiscal year 2013 budget request devalues military service by proposing drastic TRICARE enrollment fee increases for all retirees and excessive pharmacy co-

pay increases. All reservists and 97 percent of active duty participants in the survey found retirement benefits as the most important benefit.

FRA appreciates Secretary of Defense Panetta's statement that those currently serving would not be impacted by the changes proposed by the administration's proposed retirement commission, but wonders why there is no similar commitment to those who have served in the past.

The Senate Armed Services Committee approved the markup recently for the Defense authorization bill and that expands this commission to include not just retirement pay, but also current active duty compensation. Although we are thankful it excludes currently serving and retirees, the FRA opposes this base realignment and closure (BRAC)-like type commission because it would bypass the expertise of this Committee and subcommittee on Capitol Hill.

FRA supports Senators Frank R. Lautenberg and Marco Rubio's bill, the Military Health Care Protection Act, that would seek to protect TRICARE beneficiaries from excessive and unfair enrollment fee increases and significant hikes in pharmacy co-pays. The bill will emphasize that military service, unlike other civilian occupations and associated healthcare costs, are earned through 20 years or more of arduous service and sacrifice.

The association does support the administration's fiscal years 2013 and 2014 active-duty pay increase that is equal to the Employment Cost Index.

FRA supports a Defense budget at least 5 percent of the gross domestic product (GDP), that will adequately fund both people and weapons programs, and is concerned that the administration's spending plan is not enough to support both, particularly given the ongoing operational commitments associated with the new defense strategy. Further, spending on national defense as a percentage of GDP will be reduced, despite significant continued war-related expenses and extensive operational and national security commitments.

PREPARED STATEMENT

The Defense budget could actually shrink by more than 30 percent over the next decade, and the administration projects outlays of only 2.7 percent of GDP in 2021. That would be down from last year's 4.5 percent of GDP. That would be down—the 2021 outlays would be pre-World War II outlays. As recently as 1986, though, the United States has spent 6.2 percent of GDP on defense, with no real detrimental economic impact.

Again, thank you for allowing me to submit FRA's views to the subcommittee.

[The statement follows:]

PREPARED STATEMENT OF JOHN R. DAVIS

THE FLEET RESERVE ASSOCIATION

The Fleet Reserve Association (FRA) is the oldest and largest enlisted organization serving Active Duty, Reserves, retired, and veterans of the Navy, Marine Corps, and Coast Guard. It is congressionally chartered, recognized by the Department of Veterans Affairs (VA) as an accrediting Veteran Service Organization (VSO) for claim representation and entrusted to serve all veterans who seek its help. In 2007, FRA was selected for full membership on the National Veterans' Day Committee.

FRA was established in 1924 and its name is derived from the Navy's program for personnel transferring to the Fleet Reserve or Fleet Marine Corps Reserve after 20 or more years of active duty but less than 30 years for retirement purposes. During the required period of service in the Fleet Reserve, assigned personnel earn retainer pay and are subject to recall by the Navy.

FRA's mission is to act as the premier "watch dog" organization on Capitol Hill in maintaining and improving the quality of life for Sea Service personnel and their families. The Association also sponsors a National Americanism Essay Program and other recognition and relief programs. In addition, the FRA Education Foundation oversees the Association's scholarship program that presented awards totaling more than $120,000 to deserving students last year.

The Association is also a founding member of The Military Coalition (TMC), a consortium of more than 30 military and veteran's organizations. FRA hosts most TMC meetings and members of its staff serve in a number of TMC leadership roles.

FRA celebrated 87 years of service in November 2011. For nearly nine decades, dedication to its members has resulted in legislation enhancing quality-of-life programs for Sea Services personnel, other members of the uniformed services plus their families and survivors, while protecting their rights and privileges. CHAMPUS, (now TRICARE Standard) was an initiative of FRA, as was the Uniformed Services Survivor Benefit Plan (SBP). More recently, FRA led the way in reforming the REDUX Retirement Plan, obtaining targeted pay increases for mid-level enlisted personnel, and sea pay for junior enlisted sailors. FRA also played a leading role in advocating recently enacted predatory lending protections and absentee voting reform for servicemembers and their dependents.

FRA's motto is: "Loyalty, Protection, and Service."

CERTIFICATION OF NONRECEIPT OF FEDERAL FUNDS

Pursuant to the requirements of House Rule XI, the FRA has not received any Federal grant or contract during the current fiscal year or either of the 2 previous fiscal years.

INTRODUCTION

Mr. Chairman, the FRA salutes you, members of the subcommittee, and your staff for the strong and unwavering support of funding for programs essential to Active Duty, Reserve component, and retired members of the uniformed services, their families, and survivors. The subcommittee's work has greatly enhanced care and support for our wounded warriors and significantly improved military pay and other benefits and enhanced other personnel, retirement, and survivor programs. This support is critical in maintaining readiness and is invaluable to our uniformed services engaged throughout the world fighting the global War on Terror, sustaining other operational requirements and fulfilling commitments to those who've served in the past.

STOP DEPARTMENT OF DEFENSE SEQUESTRATION

As mandated by the 2011 Budget Control Act, failure of the Super Committee in 2011 to develop a bipartisan plan to contain the growth of the national debt will force implementation of "sequestration" in January 2013 unless the Congress intervenes. Failure to act will trigger across-the-board cuts with one-half coming from the defense budget. FRA agrees with Secretary of Defense Leon Panetta, who said these cuts "would do catastrophic damage to our military, hollowing out the force and degrading its ability to protect the country." Defense counts for 17 percent of the Federal budget but will receive 50 percent of the sequestration cuts.

With the American military out of Iraq and the conflict in Afghanistan winding down, some are suggesting the possibility of a "peace dividend." Although there have been victories in the War on Terror, there has been no peace treaty with terrorism and an additional $500 billion in defense cuts beyond the already-planned reductions over the next decade beginning in fiscal year 2013 could jeopardize essential funding of military pay and benefit programs, which would negatively impact recruiting, retention, and overall military readiness. For these reasons, FRA strongly supports the "Down Payment to Protect National Security Act" (S. 2065) sponsored by Senator Jon Kyl and a House bill (H.R. 3662) sponsored by the House Armed Services Committee (HASC) Chairman, Representative Howard P. "Buck" McKeon. These proposals would amend the Budget Control Act of 2011 by excluding the Department of Defense budget from the first year of sequestration (2013).

Less than 1 percent of the population is shouldering 100 percent of the burden of maintaining our national security, and the punitive funding reductions mandated

by sequestration would force major across-the-board cuts to all programs and could potentially threaten the all-volunteer force.

BUDGET DEVALUES MILITARY SERVICE

FRA's membership is especially concerned about the administration's proposed fiscal year 2013 budget which includes plans to drastically increase existing TRICARE Prime enrollment fees, implement new fees for TRICARE Standard and TRICARE-for-Life beneficiaries, and increase pharmacy co-pays. If authorized, fees would be tiered based on the beneficiary's retired pay. These increases are a major concern to the entire military retiree community and since mid-February that concern has prompted nearly 20,000 messages to Capitol Hill via FRA's Web site Action Center. Our members are also concerned that the budget calls for the fees to be adjusted annually based on healthcare inflation after fiscal year 2017.

As this statement is being written, the Senate Armed Services Committee has not marked up its version of the Fiscal Year 2013 Defense Authorization bill. The HASC version of the legislation (H.R. 4310) did not authorize the proposed healthcare fee increases for all military retirees—including TRICARE for Life (TFL) beneficiaries. The panel did, however, authorize higher pharmacy co-pays. In addition, future co-pay adjustments will be tied to the Consumer Price Index which is the basis of annual military retired pay adjustments and consistent with future TRICARE Prime enrollment fee adjustments that became effective this year. The legislation also authorizes a 5-year pilot program that would require TFL beneficiaries to use the mail-order, home delivery program rather than retail pharmacies for maintenance drugs, and beneficiaries could opt out of the program after 1 year. There would be no cost for prescriptions filled at military pharmacies.

The budget request also calls for a commission to study and propose changes to the military retirement system. This BRAC-like process would bypass the expertise of Senate and House committees and subcommittees and only allow the Congress an up-or-down vote on the commission's recommendations. All reservists responding to a recent (February 2012) FRA survey, and 97 percent of active duty participants ranked retirement benefits as a very important benefit. More than 1,000 current and former servicemembers participated in the survey. As the Congress considers plans to reduce DOD costs by revamping the military retirement program, that benefit is particularly relevant to Active Duty and Reserve component personnel. Many current servicemembers have expressed concern about the future of the retired pay and healthcare benefits they've been promised after they complete a career of military service. FRA appreciates Secretary of Defense Panetta assuring those currently serving that they will come under the current retirement system, but wonders why there is no similar commitment for those who served in the past?

The budget also requests an Active Duty and Reserve pay hike based on the Employment Cost Index of 1.7 percent in 2013, and only at that level in 2014 with capped pay adjustments below that index thereafter.

FRA supports a defense budget of at least 5 percent of GDP that will adequately fund both people and weapons programs, and is concerned that the administration's spending plan is not enough to support both, particularly given ongoing operational commitments associated with the new defense strategy.

Future spending on national defense as a percentage of GDP will be reduced despite significant continuing war related expenses and extensive operational and national security commitments. Wall Street Journal editorial writers noted, "Taken altogether, the (defense) budget could shrink by more than 30 percent in the next decade. The administration projects outlays at 2.7 percent of GDP in 2021, down from 4.5 percent last year (which included the cost of Iraq and Afghanistan). That would put U.S. outlays at 1940 levels—a bad year. As recently as 1986, a better year, the U.S. spent 6.2 percent of GDP on defense with no detrimental economic impact. What's different now? The growing entitlement state. The administration is making a political choice and sparing Social Security, Medicare and Medicaid, which are set to hit nearly 11 percent of GDP (without healthcare reform costs) by 2020."

Make no mistake about the importance of these entitlement programs; however, DOD and VA benefits are also important and essential to maintaining that all volunteer force and our national security.

TRICARE FEE INCREASES

Healthcare benefits are important to every segment of FRA's membership. The continued growth in healthcare costs is not just a military challenge but a challenge for the entire society. FRA believes that military service is a unique profession and notes minimal projected savings associated with DOD management efficiencies and other initiatives in fiscal year 2013 and beyond, while retirees are targeted for

major fee hikes. These proposals also follow the 13-percent military retiree TRICARE Prime increase imposed this year.

Our members are also very concerned about a proposed new TRICARE-for-Life (TFL) enrollment fee beginning in fiscal year 2013. This is viewed as another failure to honor commitments to those who served past careers in the military. These personnel have not benefited from the significant pay and benefit enhancements enacted since 2000.

The Association believes that military retirees have earned their TRICARE benefits with 20 or more years of arduous military service with low pay. As you know, many retirees believe that they were promised free healthcare for life.

FRA strongly opposes premium increases for TRICARE beneficiaries' based on healthcare inflation. The Consumer Price Index (CPI) is the basis for military retiree annual cost-of-living adjustments (COLAs), the purpose of which is to maintain purchasing power for the beneficiary. The Association strongly supports adequate funding of the Military Health Service (MHS) without the drastic fee increases and extreme pharmacy co-pays for all retirees proposed by the administration.

RETIREMENT COMMISSION

The administration proposed the creation of a BRAC-like commission to review and "reform" the current military retirement system. Numerous studies and commissions have focused on the military retirement as an opportunity to reduce overhead costs for the Pentagon. The latest is the Defense Business Board (DBB) proposal to replace the current system with a 401(k) plan similar to what corporations offer their employees. This concept has created significant anxiety in the career active duty community. An FRA online survey released last October resulted in strong opposition responses to proposals to "civilianize" the current military retirement system. More than 1,700 current and former servicemembers responded and nearly 95 percent believe retiree benefits offer the most appeal if they were joining today. More than 80 percent of Active Duty and Reserve component respondents said they'd shorten their term of service if retirement benefits were changed to conform with the recommendations.

FRA believes that military service is unlike any other career or occupation, and requires a unique retirement system. Career senior noncommissioned officers are the backbone of our military and their leadership and guidance are invaluable and a result of many years of training and experience.

WOUNDED WARRIORS

FRA believes post-traumatic stress should not be referred to as a "disorder". This terminology adds to the stigma of this condition, and the Association believes it is critical that the military do all it can to reduce the stigma associated with post-traumatic stress and traumatic brain injury.

FRA also believes the Armed Services and Veterans Affairs Committees should remain vigilant regarding their oversight responsibilities associated with ensuring a "seamless transition" for wounded warriors transitioning from DOD's MHS to the Department of Veterans Affairs (VA). FRA strongly supports efforts to create and adequately fund a Joint Virtual Lifetime Electronic Record (VLER) for every servicemember and believes this would be a major step toward the long-standing goal of a truly seamless transition from military to veteran status for all servicemembers and would permit a DOD, VA, or private healthcare provider immediate access to a veteran's health data.

According to Navy Times editors, "Even before sequestration takes effect budget cuts have impacted the Office of Wounded Warrior Care and Transition Policy with the elimination of 40 percent (44 positions) of the staff, and all 15 contract employees in the transition policy section that leaves only two full-time civilian employees." [1] Budget cuts have also resulted in the cancellation of the Virtual Transition Assistance Program Web site that was scheduled to replace the current Turbo TAP Web site. FRA is concerned that these cuts could negatively impact transitioning wounded warriors.

The Association also notes the importance of the Navy's Safe Harbor Program and the Marine Corps Wounded Warrior Regiment that are providing invaluable support for these personnel and recommends adequate funding to support these programs.

[1] "Navy Times" editorial, January 16, 2012, page 4.

SUICIDE RATES

Suicide in the military is a serious concern for FRA and the Association notes that active-duty suicides have been reduced or at least leveled off, but suicides for non-active-duty Reserve component personnel are increasing. "More than 2,000 servicemembers killed themselves in the past decade, including 295 in 2010 compared with 153 in 2001".[2]

In 2011, there were 51 Navy active-duty suicides and 7 Navy Reserve suicides which represents an increase from 39 active-duty suicides and 6 Reserve suicides in 2010. To reduce the suicide rate the Navy has implemented a multifaceted approach with communication, training, and command support, designed to reduce individual stress and strengthen psychological health of sailors. The Navy efforts fall within the scope of their broader family readiness programs and require adequate resources to sustain these efforts.

In 2011, there were 33 marine suicides and 171 failed suicide attempts. During the previous year, 37 marines committed suicide and there were 172 failed attempts. The marines have deployed peer-to-peer suicide prevention training and are working with the DOD Suicide Prevention Office to implement the recommendations of the DOD Joint Task Force on the Prevention of Suicide. Despite these initiatives, suicides continue and efforts to address the reasons for suicides must continue to be a top priority. FRA appreciates the provision in the Fiscal Year 2012 Defense Authorization Act that requires preseparation counseling for Reservists returning from successful deployments. In addition, FRA supports Representative Thomas Rooney's bill (H.R. 208) that authorizes reimbursement for mental health counseling under TRICARE and requests full funding to support this program if authorized.

COST-OF-LIVING ADJUSTMENTS

Under current law, military retired pay cost-of-living adjustments (COLAs) are rounded down to the next lowest $1. For many of these personnel, particularly enlisted retirees, their retired pay is sometimes the sole source of income for them and their dependents. Over time, the effect of rounding down can be substantial for these personnel and FRA supports a policy change to rounding up retiree COLAs to the next highest $1.

RESERVE EARLY RETIREMENT

A provision of the Fiscal Year 2008 National Defense Authorization Act reduces the Reserve retirement age requirement by 3 months for each cumulative 90-days ordered to active duty. This is effective upon the enactment of the legislation (January 28, 2008) and not retroactive to October 7, 2001, and the Association supports "The National Guardsmen and Reservists Parity for Patriots Act" (H.R. 181) sponsored by the House Personnel Subcommittee Chairman, Representative Joe Wilson, to authorize reservists mobilized since October 7, 2001, to receive credit in determining eligibility for receipt of early retired pay. Since September 11, 2001, the Reserve component has changed from a strategic Reserve to an operational Reserve that now plays a vital role in prosecuting the war efforts and other operational commitments. This has resulted in more frequent and longer deployments impacting individual reservist's careers. Changing the effective date of the Reserve early retirement would help partially offset lost salary increases, promotions, 401(k), and other benefit contributions. The Association urges support and funding for this important legislation.

RETENTION OF FINAL FULL MONTH'S RETIRED PAY

If authorized, FRA urges the subcommittee to provide funding to support the retention of the full final month's retired pay by the surviving spouse (or other designated survivor) of a military retiree for the month in which the member was alive for at least 24 hours. FRA strongly supports "The Military Retiree Survivor Comfort Act" (H.R. 493), introduced by Representative Walter Jones, which addresses this issue.

Current regulations require survivors of deceased Armed Forces retirees to return any retirement payment received in the month the retiree passes away or any subsequent month thereafter. Upon the demise of a retired servicemember in receipt of military retired pay, the surviving spouse is to notify DOD of the death. DOD's financial arm (DFAS) then stops payment on the retirement account, recalculates the final payment to cover only the days in the month the retiree was alive, forwards a check for those days to the surviving spouse (beneficiary) and, if not re-

[2] ABC News, "Rising Suicides Stump Military Leaders", September 27, 2011, Kristina Wong.

ported in a timely manner, recoups any payment(s) made covering periods subsequent to the retiree's death. The recouping is made without consideration of the survivor's financial status.

The measure is related to a similar VA policy. The Congress passed a law in 1996 that allows a surviving spouse to retain the veteran's disability and VA pension payments issued for the month of the veteran's death. FRA believes military retired pay should be no different.

CONCURRENT RECEIPT

FRA supports legislation authorizing and funding concurrent receipt of full military retired pay and veterans' disability compensation for all disabled retirees. The Association strongly supports Senate Majority Leader, Senator Harry Reid's "Retired Pay Restoration Act" (S. 344) and Representative Sanford Bishop's "Disabled Veterans Tax Termination Act" (H.R. 333). Both proposals would authorize comprehensive concurrent receipt reform, and Representative Gus Bilirakis's "Retired Pay Restoration Act" (H.R. 303) would authorize current receipt for retirees receiving concurrent retirement and disability pay (CRDP) with a disability rating of 50 percent or less.

FRA also strongly supports House Personnel Subcommittee Chairman Representative Joe Wilson's bill (H.R. 186), that expands concurrent receipt for servicemembers who were medically retired with less than 20 years of service (chapter 61 retirees) and would be phased-in over 5 years. This proposal mirrors the administration's proposal from the 110th Congress. In 2008, the Congress voted to expand eligibility for combat-related special compensation (CRSC) coverage to chapter 61 retirees and the proposed legislation would, in effect, extend eligibility for CRDP to all chapter 61 retirees over 5 years. A less costly improvement to pursue in an austere budget year would be fixing the so-called "glitch" for CRSC that result in compensation declining when the VA disability rating increases.

MILITARY RESALE SYSTEM

FRA strongly supports adequate funding for the Defense Commissary Agency (DeCA) to ensure access to the commissary benefit for all beneficiaries. Since 2000, DeCA's budget has remained flat in real dollars, meaning the agency has done more with less for the past 11 years.

The Association also strongly supports the military exchange systems (AAFES, NEXCOM, and MCX), and urges against revisiting the concept of consolidation. FRA instead urges a thorough review of the findings of an extensive and costly ($17 million) multiyear study which found that this is not a cost-effective approach to running these important systems.

CONCLUSION

FRA is grateful for the opportunity to provide these recommendations to this distinguished subcommittee.

Chairman INOUYE. I thank you very much, Mr. Davis, for your testimony, and we will most certainly look into the Lautenberg-Rubio bill. Thank you.

I thank this panel.

Now, the next panel consists of: Ms. Mary Hesdorffer, representing the Mesothelioma Applied Research Foundation; Mr. Stephen Isaacs, representing Aduro Biotech; Dr. Laurence Corash, representing Cerus Corporation; and Ms. Sharon Smith, representing the National Trauma Institute.

May I call upon Ms. Mary Hesdorffer.

STATEMENT OF MARY HESDORFFER, ARNP, MSN, MESOTHELIOMA APPLIED RESEARCH FOUNDATION

Ms. HESDORFFER. Chairman Inouye, Ranking Member Cochran, and members of the subcommittee: I really want to thank you again for allowing me to come before you to present our case on behalf of mesothelioma patients. I'm a nurse practitioner. I've been treating patients for more than 12 years with this disease, and I'd

like to share a little bit of information that I think is important for the Department of Defense.

Mesothelioma is directly related to asbestos exposure. It's an extremely rare disease. There's about 3,500 cases diagnosed per year. Of those 3,500 cases, one-third can be directly related to either Navy duty or working in shipyards. So we lose a tremendous amount of Navy vets to this disease. And it remains an active threat now because after exposure to asbestos the latency period can be anywhere from 10 to 50 years. So this remains a constant threat and something that we really need to do something about.

From the time of diagnosis, the average survival is documented as 6 to 9 months. We have one approved therapy and that's a drug combination, and that extends the median survival to 12.3 months.

I'd like to use a Navy vet who I'm very close to to give you an illustration of what the life of a mesothelioma patient is like. Tom Shikowski, who asked that I share his name and his story, was a sonar man. He worked as an underwater fire control technician on the USS *Fletcher*. He describes his situation as having spent 4 years in an asbestos cocoon on the Navy ship. He directly correlates his development of mesothelioma to his time served in the Navy.

Tom was faced with a tough decision. He could have chemotherapy and extend life to 12.3 months, or try something experimental, and the best experimental we have right now is what we call an extrapleural pneumonectomy, where we remove the entire lung, the lining of the lung, the lining of the mediastinum, which is the center of the chest, and the lining of the heart. The heart is then encased in a sack to keep it in place. Patients are subjected to chemotherapy and radiation therapy.

Yet this is not a cure, and in fact Tom, after having undergone this procedure, now faces a decision of what type of chemotherapy he's going to have for his fourth recurrence of the disease. Tom is out of options. He has one lung. It fills with fluid, and traveling for treatment becomes very difficult, especially in terms of having so few clinical trials to offer.

What we're asking today is that the subcommittee recognizes the need for mesothelioma and to spur research in this field. We'd like you to take this up as a critical national priority by providing at least $5 million in funding for mesothelioma research through the Congressionally Directed Medical Research Program for the fiscal year 2013 Defense appropriations bill, rather than the mere eligibility in the Peer-Reviewed Cancer Research Program. Mesothelioma needs to be designated as a specific line item. Mesothelioma patients, who have already risked their lives by serving in their country's armed services, do not have this time to wait.

PREPARED STATEMENT

I care deeply about my mesothelioma patients, the caregivers, and those people that have lost loved ones to this disease, and I really ask you to join me in caring deeply about this community as well and helping us to find a cure and to raise research dollars so others like Tom will not have to go through these devastating choices and will enjoy a better quality of life and extended survival.

Thank you so much.

[The statement follows:]

PREPARED STATEMENT OF MARY HESDORFFER, ARNP, MSN

Chairman Inouye, Ranking Member Cochran, and members of the subcommittee: Thank you for the opportunity to speak with you today to discuss mesothelioma, its connection to military service, and the desperate need for research. Your support is critical to our mission, and I look forward to continuing our relationship with this subcommittee.

My name is Mary Hesdorffer and I am a nurse practitioner that has worked with mesothelioma patients for over a decade. I am testifying on behalf of the Mesothelioma Applied Research Foundation and the Mesothelioma community composed of patients, physicians, caregivers, and family members. I would like to take this time to stress the importance of increased funding for the Congressionally Directed Medical Research Programs (CDMRP) which plays a critical role in finding and delivering treatments for mesothelioma.

Mesothelioma is an aggressive cancer known to be caused by exposure to asbestos. Doctors say it is among the most painful and fatal of cancers, as it invades the chest, abdomen, and heart, and crushes the lungs and vital organs. Mesothelioma disproportionately affects our service men and women, as one-third of mesothelioma cases have been shown to involve exposures in the Navy or working in our Nation's shipyards.

There are two types of mesothelioma—pleural and peritoneal. Patients with pleural mesothelioma, which affects the lining of the lungs, comprise 85 percent of the mesothelioma population and face a devastating survival time of only 9 months. Peritoneal affects the lining of the abdomen. The harsh reality for patients with advanced primary peritoneal cancer is a median survival time of 12.3 months; 5-year survivals are rare. Mesothelioma patients not only face a devastatingly short survival time, but also the harsh reality that there is only one Food and Drug Administration-approved treatment for mesothelioma. Often, the only option is surgery. I have dedicated my life to caring for these people, and I am here today to speak for the many patients that will never have the opportunity to speak for themselves and give testimony like this.

I am currently directing the care of a Navy veteran, Tom Shikoski. Tom joined the Navy directly out of high school, at the age of 18. He said "I always felt it was my duty as a citizen to serve my country." His primary duty was as a sonarman underwater fire control technician aboard the USS *Fletcher* DDE445. He spent most of his time below deck, in his words "a virtual asbestos cocoon". He is certain that he was exposed to asbestos in his 4 years on the USS *Fletcher*, although he was never informed about the dangers of asbestos.

Asbestos exposure among Navy personnel was widespread from the 1930s through the 1980s, and exposure to asbestos still occurred after the 1980s during ship repair, overhaul, and decommissioning. We have not yet seen the end of exposures to asbestos. Asbestos exposures have been reported among the troops in Iraq and Afghanistan. Soldiers in wars that extend into third-world countries, where asbestos use is increasing without stringent regulations, may also be at risk for exposure during tours of duty. Even low-dose, incidental exposures can cause mesothelioma. For all those who will develop mesothelioma as a result of these past or ongoing exposures, the only hope is that we will develop effective treatment.

Tom Shikoski had never even heard the word mesothelioma until his diagnosis. He never thought that his service to his country would come back to haunt him so many years later. His diagnosis came by accident. He had gone in for another procedure, and his doctor discovered fluid in his left lung. He had to undergo another surgery to drain over one liter of fluid from his lung, and 1 week later, he had the diagnosis of pleural mesothelioma. He found, through the help of a physician family friend, a mesothelioma specialist in Texas and had to travel across the country from his home in Michigan to see a mesothelioma expert. It was recommended that he have an extrapleural pneumonectomy, a surgical treatment to remove a lung, a portion of the diaphragm, the linings of the lungs, and heart. He then had 25 treatments of radiation, followed by 30 treatments of chemotherapy even though not more than 12 treatments are recommended due to the high risk of anaphylactic shock. Tom is willing to do anything to spend more time with his wife, children, and many grandchildren.

Patients take great risks to participate in clinical trials, but they feel the possibility of helping to find a better treatment is worth the risk. As peritoneal mesothelioma patient, Bonnie Anderson, said recently, "I knew if I was going to die from mesothelioma, I was going to put it to good use in a clinical trial."

There are brilliant researchers dedicated to mesothelioma. Biomarkers are being identified. Two of the most exciting areas in cancer research—gene therapy and biomarker discovery for early detection and treatment—look particularly promising in mesothelioma. The Mesothelioma Applied Research Foundation has made a significant investment, funding more than $7.6 million to support research in hopes of giving researchers the first seed grant they need to get started. We need the continued partnership with the Federal Government to develop the promising findings into effective treatments.

I will give you an example of how the support of the CDMRP has helped the promising research initiatives that are giving hope to mesothelioma patients:

—A vaccine is being developed that would induce an immune response against WT1, a tumor suppressor gene highly expressed in mesothelioma patients. A pilot trial was conducted in patients with mesothelioma to show that it is safe and immunogenic. The researcher was then funded by a 2009 CDMRP award. Today, a multisite clinical trial is being conducted on patients following definitive surgery.

It is efforts like these that give me faith. I am grateful for the Federal Government's investment in mesothelioma research, the discoveries being made due to the funding, and I want to see it continued and increased.

Mesothelioma is known to be caused by exposure to asbestos. We can not only document the Naval asbestos exposures over the course of the 20th century, but we have evidence that one-third of American mesothelioma patients were exposed while serving their country or working as civilians aboard Navy ships. The United States must take greater action to right this wrong and fund mesothelioma research.

The mesothelioma community urges the subcommittee to recognize mesothelioma as a critical national priority by providing at least $5 million in funding for mesothelioma research through the CDMRP in the fiscal year 2013 Defense appropriations bill. Rather than mere eligibility in the Peer-Reviewed Cancer Research Program, mesothelioma needs to be designated a specific line item. Mesothelioma patients who already risked their lives by serving in our Nation's armed services do not have the time to wait.

I look to the Defense appropriations subcommittee to provide continued leadership and hope to the people who develop this deadly cancer. You have the power to lead this battle against mesothelioma. Thank you for the opportunity to submit testimony and for funding the CDMRPs at the highest possible level so that patients receiving this deadly diagnosis of mesothelioma may someday survive.

Chairman INOUYE. As you know, we're constantly reminded of mesothelioma by television ads of law firms. But your suggestion, I think, has some merit. We'll look into it.

Ms. HESDORFFER. Thank you so much.

Chairman INOUYE. Thank you very much.

Now may I call upon Mr. Stephen Isaacs.

STATEMENT OF STEPHEN T. ISAACS, CHAIRMAN AND CHIEF EXECUTIVE OFFICER, ADURO BIOTECH

Mr. ISAACS. Thank you and good morning, Chairman Inouye, Ranking Member Cochran, and members of the Defense subcommittee. It's truly an honor for me to testify before you today.

I'm the Chairman and CEO of Aduro Biotech from Berkeley, California, and we develop modern vaccines to both prevent and treat serious conditions such as cancer, infectious diseases, and a variety of bioterror pathogens. While these vaccines are primarily designed for civilian use, they also have a lot to offer to the military.

My purpose in testifying today is to briefly tell you about these new vaccine technologies that can make a big difference to the military and to make a few suggestions about the Peer-Reviewed Medical Research Program that we participate in and how the process can be improved.

No one knows better than your subcommittee that development of modern vaccines to support combat operations, to mitigate acts

of terrorism, and to provide new therapies for DOD-wide populations is a top priority for DOD. I think the past problems of a major U.S. Department of Health and Human Services (HHS) effort to develop a protective vaccine against anthrax really illustrates the complexity and difficulty of developing such vaccines.

But, fortunately, there's now a strategic opportunity to advance recent breakthroughs in vaccine technology, to develop both therapeutic and preventative vaccines. So briefly, the problem with many current vaccines is that they are attenuated or weakened pathogens and they're used to elicit an effective immune response, but these pathogens carry a risk of causing an infection. Another approach is to use so-called "killed vaccines", but these simply don't work as well.

To address this problem, my company, Aduro Biotech, has really developed a very novel platform technology that combines the safety of a killed vaccine with the efficacy of a live vaccine. Since 2002 we've raised and invested more than $83 million to the development of the Aduro vaccine platform technology, and we've made remarkable progress.

Aduro is currently conducting a phase two clinical trial to treat metastatic pancreatic cancer, and we will begin new trials on mesothelioma and glioblastoma within the next few months. We were recently competitively selected to participate in the peer-reviewed Prostate Cancer Research Program, and I thank you for your leadership in providing the Pentagon with the funds for this award. We strongly believe that we can make a difference in vaccine programs for the Army and the Navy as well.

In its medical research budget to the Congress, the Army notes that developing an effective malaria vaccine is a top priority, and the Navy notes that diseases that were once confined to remote areas of the world now have the capability to cross continents.

In our opinion, neither the Army nor the Navy have sufficient funds to conduct robust vaccine development programs that are clearly needed to deal with these threats. The main purpose of testifying is to say that the military could realize significant breakthroughs by competitively developing modern preventative and therapeutic vaccines, and I strongly urge your subcommittee to make it a top priority to give DOD adequate resources for robust vaccine development programs for our troops.

The other topic I'd like to briefly address is the process used by the Army to administer the DOD Congressionally Directed Medical Research Program that we believe can be improved. Here are a few of the issues. First, it's not always clear to us what DOD would like to fund. Is it innovative research or is it translational medicine?

Second, some topics that are listed as areas of interest are not funded at all. So in spite of high scores in these applications, no funding is received, and this is a huge waste of everybody's time for both the submitters and for the reviewers.

Finally, there is no path for resubmission of these applications, such as there is at the National Institutes of Health (NIH) and the Small Business Innovation Research (SBIR) program.

So, specifically, we respectfully submit our recommendations for improving the process, which are the following: first, consider limiting the use of congressionally directed medical research funds to

applied research; second, consider directing a specific percentage of the annual programs to small businesses; and finally, consider directing the Assistant Secretary of Defense for Health Affairs to submit a report on how DOD's peer-review process can be strengthened and approved.

PREPARED STATEMENT

So thank you very much for the opportunity to express my views about vaccine development that are really directed at solving important medical issues for our troops. And thanks to both of you for your interest in these programs and certainly for your service to our country.

Finally, I really do appreciate the opportunity to present today, and I invite you and other staff to come and visit Aduro the next time you're on the west coast.

Thank you very much.

[The statement follows:]

PREPARED STATEMENT OF STEPHEN T. ISAACS

Chairman Inouye and Ranking Member Cochran, and members of the Defense subcommittee: It is an honor for me to testify before your subcommittee today.

I know that your subcommittee cares deeply about the health and welfare of the brave men and women who serve our Nation in the Armed Forces, and that your subcommittee has taken a leadership role in providing funds for health and biodefense research. My purpose today is to tell you about the new vaccine technologies like ours that can make a big difference to the military; and second, to make some suggestions about the Peer-Reviewed Medical Research Program in order to make it better for all who participate in it and to provide better value to the taxpayer.

I am Chairman and CEO of Aduro Biotech Incorporated in Berkeley, California. We are developing modern vaccines to both prevent and to treat serious diseases, and while these vaccines are designed for civilian use, they also offer tremendous capabilities to our Armed Forces. We team with other companies and nonprofit organizations to collaboratively develop the best vaccine technologies for specific purposes.

No one knows better than your subcommittee that development of modern vaccines to support combat operations, to mitigate acts of terrorism, and to provide new therapies for the Department of Defense (DOD)-wide population of military personnel and their dependents is a top priority for DOD. The past failure of a major Department of Health and Human Services (HHS)-supported program to develop a prophylactic (protective) anthrax vaccine illustrates the difficulty in developing modern vaccines. There is also now a strategic opportunity to advance recent breakthroughs in therapeutic vaccines to develop treatments for serious cancers and infectious diseases that affect our war fighters and their dependents—particularly for pancreatic cancer for which survival rates are very low—as well as infectious diseases that affect the military, such as malaria, and improve our defense against engineered biological threats.

Many current vaccines use small amounts of "attenuated" pathogens to elicit an effective immune response from the body. However, the use of attenuated microorganisms is often considered inappropriate due to potential risks that the live microbe itself may be harmful in some individuals and is out of the question for biodefense applications. An alternative is the use of "killed-vaccines" in which pathogens are completely inactivated and then used to produce an immune response without causing the severe effects of the disease; however, the efficacy of killed vaccines is often not as great as attenuated strains.

To address this problem, Aduro Biotech has developed novel live-attenuated double deleted (LADD) vaccines to target specific diseases, as well as a unique killed but metabolically active (KBMA) vaccine platform technology that combines the safety of a killed vaccine with efficacy similar to a live vaccine. Most recently, Aduro has developed a third vaccine platform in which the vaccine vector actually commits "suicide" within the body after stimulating a strong immune response ("Suicide Strains"). All three of these platforms stimulate the body's immune system by using a genetically modified form of the common bacteria Listeria monocytogenes as the platform. Promising work has been done by Aduro on selected LADD vaccines that

are excellent vaccine candidates in their own right and which require further development, some of which may also become more desirable if transitioned to KBMA or Suicide Strains. All three vaccine platforms are designed for the treatment of cancer, infectious disease, and protection against bioterror agents.

More than $83 million of private funds have been invested to date in development of Aduro's revolutionary LADD, KBMA, and Suicide Strain technologies. These approaches use advanced technology developed by Aduro to specifically and selectively block the ability of a vaccine organism to cause disease, yet preserve its ability to stimulate a robust immune response against selected pathogens or cancerous tumors. LADD, KBMA, and Suicide Strain vaccines can also be used as therapeutic agents used to treat cancers such as pancreatic, lung, and melanoma, and chronic infections such as human papilloma virus, malaria, and hepatitis B and C.

Remarkable progress has recently been made in treating pancreatic cancer. Aduro is currently conducting a Phase II clinical trial with a LADD vaccine to treat metastatic pancreatic cancer, and will begin new clinical trials on mesothelioma this summer and glioblastoma early next year.

We were recently competitively selected to participate in the Peer-Reviewed Prostate Cancer research program, and I am here to thank you for your leadership in providing the Pentagon the funds that allow companies like mine to competitively bring in the best new ideas and new technologies.

In its medical research budget to the Congress, the Army notes that developing an effective malaria vaccine is a top priority since "A highly effective vaccine would reduce or eliminate the use of anti-malarial drugs and would minimize the progression and impact of drug resistance to current/future drugs." In our opinion, the Army does not have sufficient malaria research funds to conduct a robust vaccine development program that it clearly needs. United States servicemembers are often deployed to regions endemic for malaria. Currently, a large contingent of U.S. forces is deployed in malarial regions in Southeast and Southwest Asia. Soldiers in today's military can be exposed to more than one malaria-endemic region prior to diagnosis. This presents new complexities for disease monitoring and prevention policy development.

In its medical research budget to the Congress, the Navy notes that diseases that may have once been confined to remote areas of the world now have the capability to swathe entire regions and to cross continents. United States expeditionary operational forces are especially susceptible due to their exposure to areas/regions of high risk and the potential for rapid, high-volume transmission among close quartered personnel. Enteric diseases are of special concern to the Navy and Marine Corps because of the high morbidity involved and the potential to infect a large number of personnel through contaminated food and water sources, especially in regions overseas where food handling, water supply, and waste disposal practices are questionable. Respiratory disease has been and will continue to be a main focus of military disease research and vaccine development. Viruses, bacteria, and parasites spread by arthropods (e.g., mosquitos, flies, fleas) are some of the most imminent threats to military forces abroad due to geographic risk factors and a general lack of effective vaccines and treatment. Emerging diseases also include new drug-resistant variants as well as new mutational strains of viral agents. In our opinion, the Navy does not have sufficient vaccine research funds to conduct a robust vaccine development program that it clearly needs to meet these requirements.

The main purpose of testifying before your subcommittee today is to tell you that the military could make some significant breakthroughs by competitively developing modern prophylactic and therapeutic vaccines to solve some of the more difficult challenges for ensuring the health of our Nation's Armed Forces. Understanding that we are in a very difficult budget climate, I strongly urge your subcommittee to make it a top priority to give DOD adequate resources for robust vaccine development programs for our troops as your subcommittee crafts annual appropriations bills.

The other topic I would like to briefly address today is the process used by the Army to administer the DOD Congressionally Directed Medical Research Program that we and others in our industry believe can be improved. Here are observations from our perspective:

—It is not clear to the investigators whether DOD would like to fund early innovative research or technology development, yet analysis of after-the-fact awards indicates a bias toward basic research even though solicitations seem to be inviting applied research proposals. The real-world funding gap, which should be the intent of the Senate's program, is in applied research not basic research.

—In some instances topics are listed in their contracting documents, review panels are formed for these topics, but in the subsequent review of industry proposals none of these grant applications are funded—even some with exception-

ally high scores. This seems to be a tremendous waste of everybody's time including the time of the reviewers.

—The review process seems to be a complete hit and miss; the quality of the review is highly variable and the comments are often not very helpful. Steps should be taken to ensure that the reviewers have a background in and understand the technology being reviewed.

—There is no path for resubmission and for addressing the reviewer's comments. Unlike other similar Federal programs, DOD does not allow for resubmissions. In contrast, National Institutes of Health (NIH), Small Business Innovation Research (SBIR), and Advanced Research Projects Agency-Energy (ARPA–E) do allow for at least one resubmission. The new reviewers are provided with the full review of the first submission and the investigator has one page to outline how the resubmission has been changed. We have had very good experience with resubmissions, which are the only form of dialogue between submitter and reviewer.

We believe that the following recommendations for improved management of the Peer-Reviewed Congressionally Directed Medical Research Programs would give DOD, the Congress, and the taxpayer better results:

—Consider limiting use of congressionally added medical research funds, particularly in the Peer-Reviewed Medical Research Program, to applied research rather that basic research.

—Consider directing a specific percentage of the annual programs to small businesses.

—Direct the Assistant Secretary of Defense for Health Affairs (ASD (HA)) submit a report to the Appropriations Committees of the House and Senate by January 31, 2013, on how DOD's peer-review process for the Congressionally Directed Medical Research Programs can be strengthened and improved. ASD (HA) should specifically examine the procedures used by the Department of Energy's ARPA–E that are efficient and consistently win praise from industry.

In closing, I would like to thank you for giving me the opportunity to express some priorities of vaccine development companies like mine on the possibilities for strategic breakthroughs in solving thorny medical issues for our troops through robust, competitive vaccine development programs.

I would also like to thank you, Chairman Inouye, for your lifetime of service to our Nation and to commend the other members of the subcommittee for your dedication to the welfare of the young men and women who so ably serve our Nation. I appreciate the opportunity to express my views to you today, and I invite any of the members or staff to come visit Aduro the next time you are on the west coast.

Chairman INOUYE. I thank you very much. Your study shows that vaccines can have an impact upon prostate cancer?

Mr. ISAACS. Well, we're working on that right now and we see a very strong impact in animal models that we've developed. And we've taken this on into human clinical trials in non-small-cell lung cancer and in pancreatic cancer. We hope to expand to mesothelioma as well.

Chairman INOUYE. I thank you very much.

May I now call upon Dr. Laurence Corash of the Cerus Corporation.

STATEMENT OF LAURENCE CORASH, M.D., CHIEF MEDICAL OFFICER, CERUS CORPORATION

Dr. CORASH. Thank you, Chairman Inouye and Ranking Member Cochran, members of the subcommittee, for the opportunity to testify about the safety of blood transfusion in the military. I'm a hematologist and I've spent 20 years researching ways to prevent transfusion-transmitted infections, first at the National Institutes of Health (NIH), then at the University of California as chief of laboratory medicine, and now at Cerus Corporation, and in my capacity as the industry representative for the U.S. Department of Health and Human Services (HHS) Advisory Committee on Blood Safety and Availability.

Blood transfusion is a fundamental component of healthcare. Patients assume that when blood is required it will be available and it will be safe. But this is not always the case. My interest in this problem began in the 1980s at the NIH and then at the University of California, when we saw our patients infected with a new disease via blood transfusion that we ultimately recognized as AIDS and the virus as HIV.

We now know, though, that this is not the only threat to the blood supply and it will not be the last threat. Our patients have experienced hepatitis B, hepatitis C, West Nile virus, and today they're facing dengue and bebizia, new pathogens that cause fatal and debilitating illnesses. There will be new pathogens in the future.

Improved donor testing has reduced the risk for some of these infections, but tests do not exist for all pathogens, and the blood supply remains vulnerable. Testing will always be inherently a reactive strategy against new pathogens. Improved donor testing has not solved the problem.

Soldiers on deployment are especially vulnerable to the problems of providing an adequate and safe blood supply for the military. As to adequacy, the military relies on its own donors, but many of these donors are disqualified due to travel related to deployment. Because blood products have a limited shelf life and require temperature control, it's not easy to transport blood to forward areas of deployment where they're critically required. As a result, the military must frequently rely on personnel to donate blood in forward areas of deployment, where it cannot be adequately tested, and this creates problems of safety due to exposure to unrecognized pathogens.

Today a solution exists to this problem. It's pathogen inactivation, treating donated blood to kill microbes. This is not a novel concept. We pasteurize milk and other intravenous medications are treated to sterilize them. However, pathogen inactivation of blood components has been a scientific challenge.

My colleagues and I started work on this technology years ago and in 1999 the subcommittee provided the first year of funding to advance this technology for the military, and we're grateful for this. In 2003 the technology from our company was licensed in Europe, and since that time 1 million blood components treated with this technology have been transfused.

In our country, the respiratory hurdles to pathogen inactivation have been challenging. But my focus today is on a modest step to improve safety for the military blood transfusion supply. The French military have solved the problem of adequacy and safety for plasma by creating a pathogen-inactivated freeze-dried plasma. This product has been used in Afghanistan since 2010. It can be stored for up to 2 years at room temperature and it's ready for use within 6 minutes.

The U.S. Army is aware of dried plasma, but without FDA agreement it cannot be used for U.S. troops. The clinical data from the French army support the use of this freeze-dried plasma, and the pathogen-inactivate plasma can be available to the U.S. military through a collaborative program with the French, at lower cost and more rapidly than other approaches.

PREPARED STATEMENT

Cerus asks that the subcommittee provide funding to support the licensure of this product and to encourage the FDA to define an expeditious pathway for licensure. This action is consistent with the 2009 recommendation by the Assistant Secretary for Health for implementation of pathogen inactivation of civilian blood components.

Chairman Inouye, thank you for the opportunity to testify and for your decades of service to our military and the Nation.

[The statement follows:]

PREPARED STATEMENT OF LAURENCE CORASH, M.D.

Chairman Inouye and Ranking Member Cochran, and members of the Defense subcommittee: Thank you for the opportunity to testify before your subcommittee today about improving blood safety.

I am the Chief Medical Officer for Cerus Corporation in Concord, California. In the 1980s, I was the director of a university hematology service in which a majority of our patients were infected by an unknown virus and developed a disease, we now call AIDS, but which no one knew existed at the time. There was no way to know at that time that blood being donated and transfused contained deadly pathogens that could kill people. Although many steps are taken today to reduce the risk of infection from donated blood, it is surprising and disappointing that for both civilian and military purposes there still remains no good way to prevent new and unknown emerging pathogens from entering the blood supply and no way to detect them prior to transfusion. Worse, if a terrorist organization were to engineer novel pathogens and introduce them into our Nation's blood supply, there is no mechanism for determining that they are in blood until you see the effects, when it is far too late. We had a close call with the anthrax event in which potential blood donors were unknowingly exposed.

There is a better way, and it's called "pathogen inactivation". This is not a novel concept as all other intravenous medications are sterilized. Unfortunately, our Nation has been slow to implement it, which is a Food and Drug Administration (FDA) issue. But we are also asking our military personnel, who maybe wounded in combat, to take blood-safety risks that are not necessary. I would like to bring this issue to your attention today, along with an interim solution for your consideration.

About 16 million units of whole blood were donated in the United States in 2006. Whole blood can be transfused directly or more commonly separated into its components:

—red cells;
—plasma; and
—platelets.

Most of the Nation's blood supply is handled by the American Red Cross and a small number of community blood-banks. The FDA regulates all blood bank operations.

Blood centers, which have tested for risks like hepatitis C and AIDS since the 1980s and 1990s, have added a number of new tests on donated blood in recent years to deal with emerging pathogens. However, more pathogens have shown up in the donor population as people travel more, climate change, and urbanization impact pathogen vectors, and bacterial pathogens become more resilient to antibiotics. Without FDA approved tests for many infectious risks, blood centers have steadily added new prohibitions for people wanting to give blood which reduce the donor pool significantly. In 2006, for example, 12.4 million people volunteered to donate blood but nearly 2.6 million were turned away during questionnaire screening. Donors may be rejected simply on the region of the world to which they travelled, but many of them could be qualified blood donors if adequate testing was possible or other safety measures were taken, such as pathogen inactivation.

The Department of Defense (DOD) is generally discouraged from relying on the domestic blood supply to support the military. The Armed Services Blood Program supplies blood for 1.3 million servicemembers and their families each year. Military personnel who were stationed in Europe for extended periods in the 1980s and 1990s are not allowed to donate blood, as a precaution against mad cow disease. Soldiers returning from Iraq and Afghanistan cannot donate blood for at least a year. As a consequence, a larger population of the military can no longer donate blood. Measures such as increasing blood recruitment efforts from military personnel in

training billets, from the DOD civilian workforce, and from military dependents may not be enough.

During recent operations in Iraq and Afghanistan, platelets were collected from U.S. military members and transfused with limited real-time testing. The U.S. Army Medical Command for example stated in a January 2008 news release that:

". . . field hospitals must rely on local personnel when treating someone who has suffered catastrophic injuries and needs a lot of blood quickly. At these times, an urgent call for blood donors is sent out and our men and women in uniform, already in a war zone, line up on-on the run to give blood."

As you can imagine, collecting blood in theater from deployed U.S. soldiers or civilians entails a significant risk of infection, because testing in theater is limited. Your subcommittee is aware of the incident where the British Government raised concerns about 18 of its troops and 6 civilians who received emergency blood transfusions from American personnel in Afghanistan without proper testing for infectious diseases.

As I indicated before, there is a better way to ensure blood transfusion safety, and it's called "pathogen inactivation". In fact, the Assistant Secretary for Health in the Department of Health and Human Services established a Federal pathogen inactivation task force in 2009 based on recommendations from its Advisory Committee on Blood Safety and Availability. I urge the Senate Appropriations Committee, through one of its other subcommittees, to look into the lack of progress that has been made at the Federal level to expedite pathogen inactivation technology to protect our national blood supply.

Cerus is a biotechnology company based in California founded in 1992 with the mission to develop technology for the inactivation of infectious microbes, including viruses, bacteria, and parasites, in blood components (platelets, plasma, and red cells) used for transfusion support of patients. We have a process for pathogen inactivation in blood using chemicals and ultraviolet light that prevents any organism from replicating. Cerus blood technology inactivates all infectious agents such as bacteria, viruses, and parasites in blood, whether you know they are there or not. We have spent more than $600 million developing the technology, of which less than 7 percent came from the Federal Government, and we have been on an agonizingly slow process toward FDA approval for its eventual use in the United States.

The technology is in use in Europe, Asia, Russia, the Middle East, and South America. The treated blood components have received national licensure as biologics in France, Germany, Switzerland, and Austria. To date more than 1 million therapeutic doses have been transfused in more than 100 blood centers in 16 countries. In France, more than 30,000 patients have received the platelet and plasma products. One Belgian blood center has used the technology for 9 years. The Swiss Regulatory Authority mandated use of the platelet technology in 2010. The French Armed Forces Blood Transfusion Service has used this technology to create dried plasma which has been used in Afghanistan to treat severely wounded personnel at the time of injury since 2010. Surveillance by the regulatory authorities in these countries has shown that the technology is safe and effective in routine use; and that it has prevented transfusion-transmitted infections. The red cell technology is entering Phase 3 clinical trials in Europe.

Cerus has received DOD funding to support the development of technology specific to the Army's blood transfusion requirements. The major portion of this funding has supported the red cell technology program that is now under discussion with FDA for design of Phase 3 clinical trials. Recently, Cerus became aware of the Army's interest in dried plasma as a means to improve outcomes for severely wounded personnel. However, the Army has communicated to Cerus the overwhelming task of taking this product through FDA regulatory approval.

The U.S. Army is aware of the French Armed Forces experience with the dried plasma product; and Cerus has discussed the use of data from the French Armed Forces clinical experience with the French Armed Forces Blood Service to support FDA licensure for the specific treatment of U.S. military personnel. Cerus believes that these data, in combination with the substantial European experience with this technology are relevant and sufficient to support licensure, but prior discussions with FDA have not resulted in a commitment to use these data. Cerus believes that there is a need for the pathogen inactivated dried plasma product and that this product can be made available to the U.S. Armed Forces through a collaborative manufacturing program with the French Armed Forces Blood Service. This approach would make this product available at lower cost and more rapidly than other approaches currently under consideration. Cerus requests the subcommittees recommend this initiative with expedited review by FDA which could improve the outcomes for military personnel with severe traumatic injuries.

The pathogen inactivation technology will also be of benefit to the civilian population especially for national disaster contingency planning when normal channels for blood donation, preparation, and transport may be disrupted by natural disasters or bioterrorism events.

Chairman Inouye, as a Medal of Honor winner who has personally witnessed the horrors of combat, I wanted to bring to your attention, and to the subcommittee, that through cooperation with the French military the Army can now take steps to expedite the availability of proven pathogen inactivation technology for the U.S. Armed Forces. That would mean that our soldiers and marines would have more blood supplies, faster treatment during the critical first moments after severe injuries, and improved safety during blood transfusions after being injured in combat.

I thank all the members of the subcommittee for allowing me this opportunity to testify today, and thank you for your decades of service to our military and to our Nation.

Chairman INOUYE. You've brought up a matter that's very personal to me because during the war I got about 30 transfusions. I just must have been lucky.

What was the situation in World War II? Was it this bad?

Dr. CORASH. Well, it was worse, of course, because transportation of blood in liquid format and even of plasma was extraordinarily difficult, and that meant that treatment could not be delivered close to the point of injury. We know now that the first 30 minutes are very critical for survival.

It's improved over the years by various measures, but we have not yet achieved the most optimal outcome. I think the French have really achieved this. The data from their experience in Afghanistan for salvage of these wounded personnel is quite impressive.

Chairman INOUYE. If you have any reading material on the French method, will you submit that, please?

Dr. CORASH. I'm sorry, Sir?

Chairman INOUYE. On the French method, if you have any reading material.

Dr. CORASH. Yes, I do. I can send you some publications that have been provided to me by the French military, and I work very actively with them.

Chairman INOUYE. Thank you very much.

May I now call upon Ms. Sharon Smith.

STATEMENT OF SHARON SMITH, EXECUTIVE DIRECTOR, NATIONAL TRAUMA INSTITUTE

Ms. SMITH. Thank you, Mr. Chairman and Ranking Member Cochran, for the opportunity to testify today to urge the subcommittee to invest a greater amount of DOD medical research funds into the primary conditions which kill our soldiers.

According to military trauma surgeons, noncompressible hemorrhage is the leading cause of death among combatants whose deaths are considered potentially survivable. This includes injuries to the neck, chest, abdomen, groin, and back, where a tourniquet or compression cannot be easily applied. The National Trauma Institute (NTI) believes an accelerated program of research into noncompressible hemorrhage will result in the first truly novel advances in treating this difficult problem, will save the lives of soldiers wounded in combat, and will have tremendous impact on civilian casualties and costs.

I'm executive director of the NTI, which is a nonprofit organization based in San Antonio, Texas, where so many of the military's

medical research assets are centralized. We were formed in 2006 by leaders of America's trauma organizations in response to frustration over lack of funding of trauma research. Our board of directors includes civilian, active duty, and retired military trauma surgeons, and we advocate and manage funds for trauma research and are a national coordinating center for those funds.

In a June 2011 letter, the Defense Health Board, which provides advice and recommendations to the DOD, cited an urgent need to improve the evidence base for trauma care, and further stated that, "Due to the lack of opportunities to perform randomized controlled trials on the battlefield, challenges arise in maintaining the best practice guidelines for the combat environment."

The board then recommended that the Department endorse high-priority medical research, development, testing, and evaluation (RDT&E) funding for improving battlefield trauma care. Further, individual members of the board have expressed grave concern that when the current combat mission ends no further military medical research progress will be made. A review of medical advances available to the combat medic has identified no significant changes during the period of relative peace from the end of the Vietnam War to September 11, 2011.

The challenge going forward is to fund medical research and development during peacetime, without the historical impetus afforded by active combat operations. A time of peace is an opportunity to make medical advances to ensure readiness for the next conflict or terrorist threat.

NTI has been invited to meet with the Defense Health Board later this month to explore how we together can address these concerns.

Military trauma surgeons agree that the major cause of death from combat wounds is hemorrhage. In recent conflicts, 21 percent of combat deaths were potentially survivable. In other words, more than 1,300 warriors wounded in Iraq and Afghanistan might have survived, but died because treatment strategies were lacking. More than 600 of these were due to noncompressible hemorrhage.

Currently there is no active intervention for noncompressible hemorrhage available to military medics, not even a method to detect whether the wounded warrior is bleeding internally and if so how much blood has been lost.

On the civilian front, trauma injury is responsible for more than 61 percent of the deaths of Americans between the ages of 1 to 44 every year, more than all forms of cancer, heart disease, HIV, liver disease, stroke, and diabetes combined. An American dies every 3 minutes due to trauma, and that's 170,000 deaths, in addition to 42 million injuries every year, making trauma the second most expensive healthcare problem facing the United States, with annual medical costs of $72 billion.

PREPARED STATEMENT

So NTI recommends that the Congress set aside a much larger portion of DOD medical research funding for the medical conditions which most seriously and severely injure, as well as kill, our soldiers, and in particular maintain or increase funding for non-

compressible hemorrhage, the leading cause of potentially survivable deaths of our soldiers.

So I thank you again for the opportunity to present our views.

[The statement follows:]

PREPARED STATEMENT OF SHARON SMITH

Mr. Chairman, Ranking Member Cochran, and members of the subcommittee: Thank you for the opportunity to testify today to urge the subcommittee to invest a greater amount of Department of Defense (DOD) medical research funds in the primary conditions which kill our soldiers. According to military medical officials, noncompressible hemorrhage is the leading cause of death among combatants whose deaths are considered "potentially survivable." The National Trauma Institute (NTI) believes an accelerated program of research into noncompressible hemorrhage will result in the first truly novel advances in treating this difficult problem, will save the lives of soldiers wounded in combat, and will have tremendous impact on civilian casualties and costs.

NTI is a nonprofit organization formed in 2006 by leaders of America's trauma organizations in response to frustration over lack of funding of trauma research. Our Board of Directors now includes 19 leading physicians totaling hundreds of years in treating traumatic injuries. Some of these physicians are active duty Army, Navy, and Air Force doctors in organizations such as the Army's Institute for Surgical Research in San Antonio, where NTI is based. Others are retired from the military after 20 plus years serving our Nation and are bringing the expertise gained in combat theaters to the civilian setting.

With the support and participation of the national trauma community, NTI advocates and manages funding for trauma research and is a national coordinating center for trauma research funding. In recent years, NTI issued two national calls for proposals and received a total of 177 pre-proposals from 32 States and the District of Columbia. After rigorous peer review, NTI awarded $3.9 million to 16 proposals involving 55 clinical investigators at 39 participating sites spread across 35 cities and 22 States nationally. Several of these studies are nearing completion. However, important as these studies are, they will barely begin to build the body of knowledge necessary for improved treatments and outcomes in the field of trauma in the United States.

DEFENSE HEALTH BOARD

As the subcommittee knows, the Defense Health Board is a Federal advisory committee which provides independent advice and recommendations on DOD healthcare issues including research to the Secretary of Defense. The Board, in a letter to the Honorable Jonathan Woodson, M.D., Assistant Secretary of Defense (Health Affairs) dated June 2011, cited "an urgent need to improve the evidence base for trauma care . . . due to the lack of opportunities to perform randomized controlled trials on the battlefield, challenges arise in maintaining . . . best practice guidelines for the combat environment." The DHB then recommended that the Department of Defense "endorse . . . high-priority medical Research, Development, Test and Evaluation (RDT&E) issues for improving battlefield trauma care."

Further, individual members of the Defense Health Board have expressed grave concern that when the current combat mission ends, no further military medical research progress will be made. The challenge going forward will be to provide the necessary support for medical research and development during peacetime, without the historical impetus afforded by active combat operations. A review of medical advances available to the Combat Medic has identified no significant changes during the period of relative peace from the end of the Vietnam War to September 11, 2001.[1]

A time of peace is an opportunity to make medical advancements to ensure readiness for the next conflict or terrorist threat. NTI will be visiting the Defense Health Board later this month to explore how our country can address these concerns.

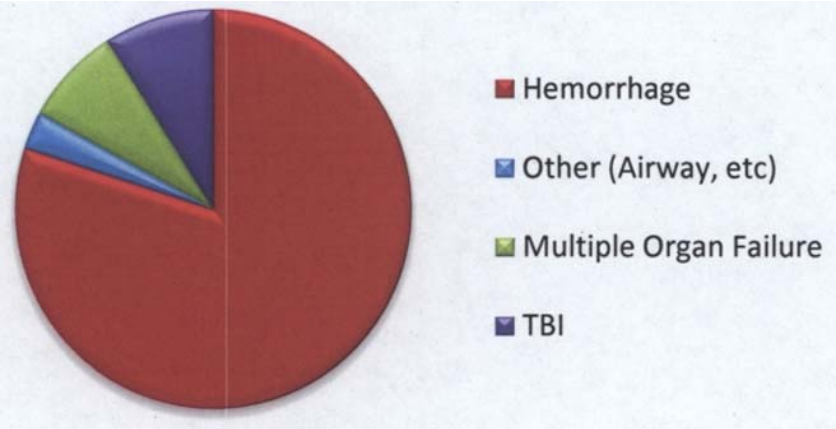
NONCOMPRESSIBLE HEMORRHAGE

According to military documents and officials, the major cause of death from combat wounds is hemorrhage. In recent conflicts, 21 percent of combat deaths have

[1] Blackborne, L.H.C. (2011) 1831. *The Army Department Medical Journal* April–June 2011, 6–10.

been judged to be potentially survivable.[2] In other words, more than 1,300 warriors wounded in Iraq or Afghanistan might have survived to come home to their loved ones, but didn't because treatment strategies were lacking. More than 1,100 (85 percent) of these deaths were due to hemorrhage, and 55 percent of these, more than 600 potentially survivable deaths, resulted from hemorrhage in regions of the body such as the neck, chest, abdomen, groin, and back that couldn't be treated by a tourniquet or compression.[2]

CAUSES OF POTENTIALLY SURVIVABLE DEATHS OPERATION IRAQI FREEDOM/OPERATION ENDURING FREEDOM



NTI commends the Congress for its attention to traumatic brain injuries and encourages a continuing focus on this potentially debilitating condition. Yet as the above chart shows, hemorrhage is a far more common killer of our soldiers, and hemorrhage has received relatively little funding.

Extremity wounds are amenable to compression to stop bleeding, and new tourniquets and hemostatic bandages have had a major impact on the decline in combat deaths due to extremity hemorrhage. But compression is rarely effective for penetrating wounds to the torso and major vessels can be damaged resulting in massive hemorrhage. At present, such wounds are normally only treatable through surgical intervention and typically such patients do not survive to reach the operating room.

Currently, there is no active intervention for noncompressible hemorrhage available to military medics, who along with civilian responders have only the tools their predecessors had in the early 20th century. There is not even a method to detect whether the wounded warrior is bleeding internally, and if so, how much blood has been lost. The current Tactical Combat Casualty Care guidelines for medics and corpsmen do not include strategies to stem bleeding from noncompressible hemorrhage because no solutions are available.[3] NTI hopes to decrease the mortality of severely injured patients suffering from torso hemorrhage. This can only be accomplished through research into the development of simple, rapid and field-expedient techniques which can be used by medics on the battlefield or first responders in a civilian context to detect and treat noncompressible hemorrhage. Examples of current NTI research in noncompressible hemorrhage include:

—The use of ultrasonography to measure the diameter of the vena cava to determine whether this will give an accurate indication of low blood volume.

—An observational study to determine the incidence and prevalence of clotting abnormalities in severely injured patients and to study the complex biology of proteins to better understand, predict, diagnose, and treat bleeding after trauma.

—Supplementation of hemorrhagic shock patients with vasopressin, a hormone needed to support high blood pressure. Vasopressin at high doses has been

[2] Eastridge, B.J., Hardin, M., Cantrell, J., Oetjen-Gerdes, L., Zubko, T., Mallak, C., Wade, C.E., Simmons, J., Mace, J., Mabry, R., Bolenbaucher, R., Blackbourne, L.H. (2011) Died of wounds on the battlefield: causation and implications for improving combat casualty care. J Trauma. 71 (1 Suppl): S4–8.

[3] (2009) Tactical Combat Casualty Care Guidelines. http://www.usaisr.amedd.army.mil/tccc/TCCC%20Guidelines%20091104.pdf. Accessed May 20, 2012.

shown to improve blood pressure, decrease blood loss and improve survival in animal models with lethal blood loss. This study investigates the use of vasopressin in trauma patients.

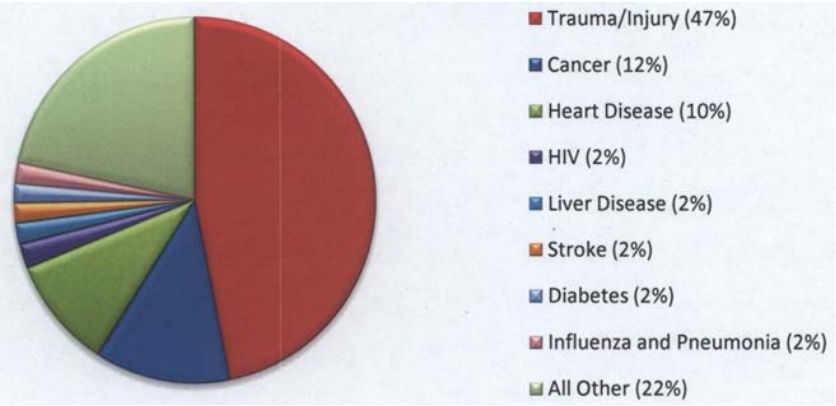
Another challenge in hemorrhage is resuscitation—the restoration of blood volume and pressure. Traditional resuscitation includes large volumes of intravenous fluids followed by blood and finally plasma. However, now this large intravenous fluid load is thought to worsen the trauma patient's coagulopathy (blood clotting problems), increasing bleeding. There is strong retrospective evidence that for patients requiring massive transfusion, a higher proportion of plasma and platelets, when compared to red cells, results in improved survival. Based on a 2004 research study,[4] the current Joint Theater Trauma Clinical Practice Guideline for Forward Surgical Teams and Combat Support Hospitals advocates a plasma, platelet, and red cell resuscitation regime in lieu of the standard intravenous fluids. Currently, there is no blood substitute available for in-theater use. The Army Medical Department/USA Institute of Surgical Research is working on a freeze-dried plasma solution; however, this product has not yet received FDA approval. Remarkably, current treatments used by military medics for restoration of blood volume are very similar to those originally used in 1831 when saline was first given as an intravenous fluid to cholera patients.[1]

Noncompressible hemorrhage is just one example of advances in research that can be applied to both military and civilian casualties. Many of the problems associated with hemorrhage of all kinds are potentially solvable and are transferable between military and civilian trauma care. The funding recommended by NTI could have a dramatic impact on civilian mortality in the United States as hemorrhage is responsible for 30 to 40 percent of deaths following a traumatic injury to civilians.[5]

IMPACT OF TRAUMA ON UNITED STATES CIVILIANS

Traumatic injury is the cause of death of nearly every soldier in combat. On the civilian front, trauma/injury is responsible for more than 61 percent of the deaths of Americans between the ages of 1 and 44 each year.[6] That's more than all forms of cancer, heart disease, HIV, liver disease, stroke, and diabetes combined. An American dies every 3 minutes due to trauma. That's 170,000 deaths in addition to 42 million injuries every year.[6]

TOP CAUSES OF DEATH IN 2009: 1–44 YEARS



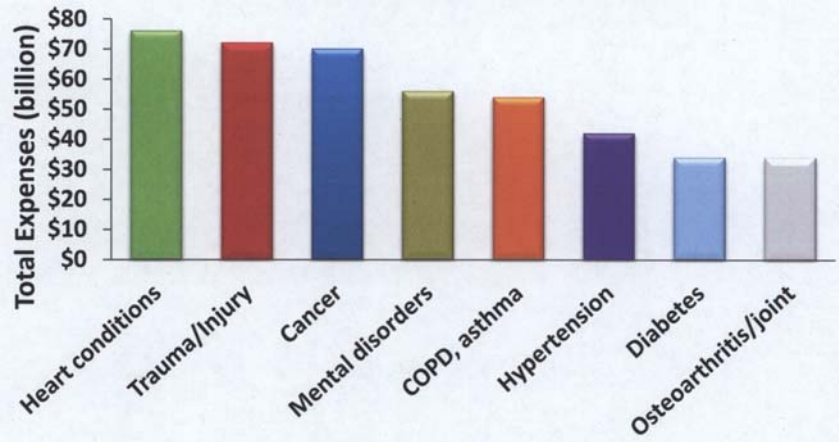
[4] Holcomb, J.B., Jenkins, D., Rhee, P., Johannigman, J., Mahoney, P., Mehta, S., Cox, E.D., Gehrke, M.J., Beilman, G.J., Schreiber, M., Flaherty, S.F., Grathwohl, K.W., Spinella, P.C., Perkins, J.G., Beekley, A.C., McMullin, N.R., Park, M.S., Gonzalez, E.A., Wade, C.E., Dubick, M.A., Schwab, C.W., Moore, F.A., Champion, H.R., Hoyt, D.B., and Hess, J.R. (2007) Damage Control Resuscitation: Directly Addressing the Early Coagulopathy of Trauma. *The Journal of Trauma* 62, 307–310.

[5] Holcomb, J.B. (2010) Optimal Use of Blood Products in Severely Injured Trauma Patients. *Hematology*, 465–469.

[6] CDC (2006) Centers for Disease Control/WISQARS. http://webappa.cdc.gov/sasweb/ncipc/mortrate10_sy.html. Accessed March 16, 2012.

Trauma is the second most expensive public health problem facing the United States. Data from the Agency for Healthcare Research and Quality (AHRQ) on the ten most expensive health conditions puts the annual medical costs from trauma at $72 billion, second only to heart conditions at $76 billion, and ahead of cancer and all other diseases.[7] The National Safety Council estimates the true economic burden to be more than $690 billion per year, since trauma has an ongoing cost to society due to disability, and is the leading cause of years of productive life lost.[8]

EIGHT MOST EXPENSIVE HEALTH CONDITIONS IN THE UNITED STATES



DEPARTMENT OF DEFENSE MEDICAL RESEARCH FUNDING

For fiscal year 2012, the Congress added more than $600 million to the President's budget request for DOD medical research funding. While very significant, this sum is considerably less than that appropriated just 2 years prior, when the Congress added more than $1 billion for DOD medical research. However, roughly 60 percent of the fiscal year 2012 funding the Congress added was not directed to those conditions such as hemorrhage which are common battlefield injuries and most severely impact our troops. NTI greatly appreciates the subcommittee's attention to traumatic brain injury and psychological health. NTI urges that the Congress set aside equivalent sums for improvements in treating other lethal or disabling battlefield injuries.

RESEARCH WORKS

It has been proven repeatedly that medical research saves lives. For instance, in 1950 a diagnosis of leukemia was tantamount to a death sentence. Research led to chemotherapy treatments in the 1950s and bone marrow transplantations in the 1970s. A substantial investment in research has led to safer and more effective treatments, and today there is a 90-percent survival rate for leukemia.[9] Another example is breast cancer. Thirty years ago only 74 percent of women who were diagnosed before the breast cancer spread lived for another 5 years. Due to research into early detection, chemotherapy and pharmaceuticals, the 5-year comparable survival rate for breast cancer is now 98 percent.[10]

Fifty years of dedicated research into proper diagnosis and treatment of leukemia has led to an 80-percent reduction in the death rate. Imagine even a 5 percent re-

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[7] AHRQ (2008) Big Money: Cost of 10 Most Expensive Health Conditions Near $500 Billion. Agency for Healthcare Research and Quality http://www.ahrq.gov/news/nn/nn012308.htm. Accessed May 2, 2012.

[8] NSC (2011) Summary from Injury Facts, 2011 Edition. National Safety Council http://www.nsc.org/news__resources/injury__and__death__statistics/Documents/Summary%202011.pdf. Accessed March 16, 2011.

[9] (2011) Research Successes. Leukemia and Lymphoma Society http://www.lls.org/#/aboutlls/researchsuccesses/. Accessed May 20, 2012.

[10] (2011) Our Work. Susan G. Komen For the Cure http://ww5.komen.org/AboutUs/OurWork.html. Accessed May 20, 2012.

duction in trauma deaths and economic burden—this could save the United States $35 billion, save almost 9,000 lives every year, and significantly reduce the extent of disability of those who do survive a traumatic event.

Recommendation.—NTI recommends that the Congress set aside a much larger portion of DOD medical research funding for the medical conditions which most severely injure as well as kill our soldiers and in particular maintain or increase funding for noncompressible hemorrhage—the leading cause of potentially survivable deaths of our soldiers.

Chairman INOUYE. I can assure you that we will discuss this matter with DOD to see if they cannot increase funding. Thank you very much.

Now the final panel. We have: Rear Admiral Casey Coane, representing the Association of the United States Navy; Dr. Andrew Pollak, representing the American Association of Orthopedic Surgeons; Mr. Mark Haubner, representing the Arthritis Foundation; and Dr. Remington Nevin, representing the mefloquine research.

May I call upon Admiral Coane.

STATEMENT OF REAR ADMIRAL CASEY COANE, U.S. NAVY (RETIRED), EXECUTIVE DIRECTOR, ASSOCIATION FOR THE UNITED STATES NAVY

Admiral COANE. Chairman Inouye and Ranking Member Cochran: It's good to be with you again this year. On behalf of the Association of the United States Navy (AUSN) and our thousands of members, we thank you and the committee for the work that you do in support of our Navy, retirees and veterans, as well as their families. Your hard work has allowed significant progress in adequately funding our Nation's military that has also left a lasting impact on national security.

AUSN recognizes the difficulties ahead in your obligation to abide by the Budget Control Act of 2011, while adequately funding and providing for our Nation's defense. Our top concerns with defense appropriations include the proposed TRICARE increases, Navy shipbuilding, and adequately funding the National Guard and Reserve equipment account for the Navy Reserve component. I'll make a brief comment about each and refer your staff to our written testimony for details.

Regarding TRICARE, AUSN accepts proposed increases in pharmacy copays right now as reasonable, but urges the Congress to reject any new fees and any increase in TRICARE Prime fees that exceeds the cost-of-living adjustment (COLA)-based standard established just last year in the Defense Authorization Act.

If we were here discussing changing the age requirements for social security, there isn't a person in this room who wouldn't agree that we must grandfather current recipients who planned for their retirement under the current rule set. The Defense Department extends no such consideration to those already retired. In fact, the lion's share of proposed fee increases applies only to retirees.

AUSN supports legislation to protect the armed service retirees from proposed increases to their TRICARE coverage, such as S. 3203, the Military Health Care Protection Act of 2012, which was introduced bipartisanly by Senators Frank R. Lautenberg and Marco Rubio.

Senators, our Navy is stretched thin today. In this decade of war our Navy, while the budget has gone up, has gotten only smaller. Right now the budget calls for fewer ships. Deployments are

lengthening today. We just had a ship return from, instead of a 6-month deployment, a 10-month wartime deployment, and we just sent one on a 10-month deployment last month. This directly impacts families. As I said, the proposed budget calls for fewer ships.

As the Army and Marine Corps return from Afghanistan, the Navy's mission will not decrease. In fact, the President has directed in his January strategic guidance increased efforts in the Pacific.

Therefore, AUSN urges the Senate Appropriations Committee to restore planned cuts to the *Virginia*-class submarine, to restore 4 of the 7 cruisers now scheduled for early retirement. This is both necessary to the Navy's mission and cost-effective for the taxpayer.

Turning to the Reserve component, Senator Cochran, you and I discussed at this hearing last year the Navy's C–48 transport aircraft. It's a program of record calling for 17 aircraft to replace seriously aging C–9B's. Now, in keeping with the Pentagon's thoughts about unfunded lists, the Navy Reserve didn't ask for an airplane this year, and yet the program of record stands. Fourteen have been bought to this date of the 17. Some have been bought with National Guard and Reserve equipment moneys, which is the right place for that, in the Reserve component.

PREPARED STATEMENT

The Navy cannot do without this airlift capacity, and each year that the less capable and far more expensive to operate C–9s remain, the taxpayers lose. There are no C–40s, as I said, in the fiscal year 2013 budget. AUSN urges the addition of at least one, funded through the National Guard and Reserve Equipment Account (NGREA), this year.

That concludes my testimony, subject to your questions.

[The statement follows:]

PREPARED STATEMENT OF REAR ADMIRAL CASEY COANE

THE ASSOCIATION OF THE UNITED STATES NAVY

The Association of the United States Navy (AUSN) continues its mission as the premier advocate for our Nation's sailors and veterans alike. Formerly known as the Naval Reserve Association, which traces its roots back to 1954, AUSN was formally established on May 19, 2009, to expand its focus on the entire Navy. AUSN works for not only our members, but the Navy and veteran community overall by promoting the Department of the Navy's interest, encouraging professional development of officers and enlisted, and educating the public and political bodies regarding the Nation's welfare and security.

AUSN prides itself on personal career assistance to its members and successful legislative activity on Capitol Hill regarding equipment and personnel issues. The Association actively represents our members by participating in the most distinguished groups protecting the rights of military personnel. AUSN is a member of The Military Coalition, a group of 34 associations with a strong history of advocating for the rights and benefits of military personnel, active and retired. AUSN is also a member of the National Military Veterans Alliance and an associate member of the Veterans Day National Committee of the Department of Veterans' Affairs (VA).

AUSN's members are Active Duty, Reserve and veterans from all 50 States, U.S. territories, Europe, and Asia. AUSN has 81 chapters across the country. Of our 18,000 members, approximately 95 percent are veterans. Our national headquarters is located at 1619 King Street, Alexandria, Virginia, and we can be reached at 703–548–5800.

SUMMARY

Chairmen Inouye, Ranking Member Cochran, and members of the Senate Appropriations Committee, Subcommittee on Defense: AUSN thanks you and your Committee for the work that you do in support of our Navy, retirees, and veterans as well as their families. Your hard work has allowed significant progress in adequately funding our Nation's military that has also left a lasting impact on our national security.

Last year alone, in the Department of Defense (DOD) Appropriations Act of 2012, AUSN was pleased to see that the Congress funded Navy Military personnel at $26.8 billion; Marine Corps military personnel at $13.6 billion; Navy Reserve personnel at $1.9 billion; and Marine Corps Reserve personnel at $644 million. In addition, AUSN was pleased to see $14.9 billion appropriated for Navy Shipbuilding and Conversion; $32.5 billion for the Defense Health Program; and record amounts of National Guard and Reserve Equipment Account (NGREA) funding at $1 billion, of which $75 million was appropriated for the Navy Reserve.

As part of a larger military and veteran community, AUSN recognizes that there are many challenges ahead, especially with the release of the President's fiscal year 2013 budget request this past February and his Strategic Guidance earlier this past January. Of great concern amongst our membership, as well as the Navy and military community, are the increases in TRICARE rates and enrollment fees in DOD's budget request. AUSN believes that such changes must be done in accordance with what is right for our military and veterans given the promises that were made when they signed up to serve their country, and especially with those retirees who have already served and whom these changes effect even more. The impact this will also have upon future recruitment and retention within the military should also be taken into consideration as this subcommittee begins appropriating funds for the various essential DOD programs our servicemembers rely on.

Similarly, AUSN is concerned with the heavy cuts that appear to be disproportionately allocated to DOD. DOD requested, in the President's budget request, $614 billion for fiscal year 2013, which reduces $487 billion from its projected spending over the next decade. In the President's Strategic Guidance, released on January 3, 2012, it states that, "we will of necessity rebalance toward the Asia-Pacific region"; however, the proposed decommissioning of seven older cruisers (six of which had been scheduled for modernization), delaying the *Ohio*-class submarine (SSBN–X) replacement program by 2 years, build two fewer littoral combat ships (LCS) over the next 5 years (one from each variant builder), building only one *Virginia*-class submarine (SSN) in 2014 and delay it to 2018, and the reduction of the joint high speed vessel (JHSV) from 18 to 10 found in the President's budget seems counter intuitive to this new strategy.

The overarching, long-term, concerns with the proposed DOD budget cuts that the AUSN has is that DOD is already requesting $614 billion for fiscal year 2013, already trimming down $487 billion from its projected spending over the next decade. However, after the failure of the Joint Committee on Deficit Reduction, or "Super Committee", failing to find the savings as mandated by the Budget Control Act of 2011 (BCA), come January 2013, the "sequestration" mechanism would be triggered that would automatically slash an additional $450–$500 billion from the military's budget by fiscal year 2021. As a result of such drastic cuts, Secretary of Defense Leon Panetta has already stated, in a letter to Senators McCain and Graham last fall, that sequestration represents a reduction of nearly 20 percent in DOD funding over the next 10 years with reductions at this level meaning the smallest Navy since before World War II, potential termination of the Joint Strike Fighter (JSF) program, delay of the next-generation ballistic missile submarine and cuts to our existing sub fleet as well as the cancellation of the LCS program.

AUSN is working with other Military and Veteran Service Organizations to address these concerns, but in regards to Defense appropriations, our focus is on the Military Healthcare System (MHS) that is crucial to our military personnel and the Navy's Equipment/Procurement needs that is vital to our national security.

MILITARY HEALTHCARE SYSTEM FUNDING

AUSN was pleased to hear that the President's budget request included $32.5 billion for the Defense Health Program (DHP), which was the same level enacted for fiscal year 2012. However, for the DOD's unified medical budget, which includes DHP, the President's budget request included $48.7 billion, which is a reduction of $4.1 billion from the fiscal year 2012 enacted level of $52.8 billion. The reduction primarily comes out of the Health Care Accrual Program which includes healthcare contributions of the Medicare-Eligible Retiree Health Care Fund to provide for the future costs of our personnel currently serving on Active Duty and their family

members when they retire. AUSN stresses the importance of adequately funding the MHS and ensure that changes, like those proposed in the President's budget request, aren't burdensome to our military.

TRICARE

The administration's fiscal year 2013 budget request implements numerous changes to the existing MHS, which is utilized by more than 9.6 million beneficiaries which include active military member, their families, military retirees and their families, dependent survivors and certain eligible Reserve component members and their families. Changes include increases to TRICARE Prime Enrollment fees. Last year, finally acknowledging the Congress's long-standing concerns about the inappropriateness of dramatic increases in beneficiary fees, the administration proposed a 13-percent increase in TRICARE Prime fees. In the absence of congressional objection, the increase was implemented as of October 1, 2011. However, the new proposal for fiscal year 2013 through fiscal year 2017 is a dramatic departure, proposing to triple or quadruple fees over the next 5 years (for example $520 across the board retired pay levels for fiscal year 2012 to $600/$720/$820 tiered across the retired pay levels for fiscal year 2013 to $893/$1,523/$2,048 by fiscal year 2017). AUSN urges the Congress to reject any increase in TRICARE Prime fees that exceeds the cost-of-living adjustment (COLA)-based standard established in the Fiscal Year 2012 Defense Authorization Act.

In addition, the fiscal year 2013 budget request institutes an annual TRICARE Standard Enrollment fee to be phased in over a 5-year period and then indexed to increases in National Health Expenditures (NHE) after fiscal year 2017 (for example $0 in fiscal year 2012 to $70 in fiscal year 2013 for individuals and $0 in fiscal year 2012 to $140 for families). The deductibles for TRICARE Standard would also increase from $150 in fiscal year 2012 to $160 in fiscal year 2013 for individuals and from $300 in fiscal year 2012 to $320 in fiscal year 2013 for families. TRICARE for Life (TFL) would also see an implementation of enrollment fees for all three tiers going from $0 for all three for fiscal year 2012 to $35 for tier 1, $75 for tier 2 and $115 for tier 3 for fiscal year 2013. In total, the fiscal year 2013 budget request contains $48.7 billion for the entire DOD unified medical budget to support the MHS, which is a difference of $4.1 billion less than the $52.8 billion that was enacted for fiscal year 2012.

These proposed increases, which require congressional approval, are part of the Pentagon's plan to cut $487 billion in spending and seeks to save $1.8 billion from the TRICARE system in the fiscal year 2013 budget, and $12.9 billion by 2017. These rate increases amount to an overall change of 30-percent to 78-percent increase in TRICARE premiums for the first year and explodes for a 5-year span increase of 94 percent to 345 percent, more than three times current levels!

AUSN, our membership and the military and veteran community continue to oppose the establishment of any new fees where there are none now (such as the enrollment fees for TFL or TRICARE Standard). Our veterans should get guaranteed access for an enrollment fee which is not always the case for those that rely on TFL or TRICARE Standard where many can't find doctors to see them. Where a flat fee exists now (which DOD is trying to dramatically increase and then index to health cost growth), we assert that the same rules should apply to those that the Congress applied to the Prime enrollment fee in the fiscal year 2012 NDAA . . . they should be tied to COLA and not health cost growth.

These changes in the fiscal year 2013 budget request raise concerns amongst the military community about the impact this will have on recruiting and maintaining a high quality all volunteer military force. These benefits have been instrumental in recruiting qualified service men and women and keeping them in uniform.

PENDING LEGISLATION AND APPROPRIATIONS

AUSN was happy to see that the House Appropriations Committee, Subcommittee on Defense completed its markup in mid-May and included $32.9 billion for DHP, which is $333.5 million more than the President's budget request, and $380.2 million more than the amount appropriated for fiscal year 2012. The markup also includes $2.3 billion for family support and advocacy programs. Increases above the request include:

—$246 million for cancer research;

—$245 million for medical facility and equipment upgrades;

—$125 million for traumatic brain injury and psychological health research; and

—$20 million for suicide prevention outreach programs.

AUSN is supportive of these funding levels within the DHP to our military. In addition, AUSN supports legislation to protect armed service retirees from proposed

increases to their TRICARE coverage such as S. 3203, the Military Healthcare Protection Act of 2012, which was introduced bipartisanly by Senators Frank Lautenberg (D-NJ) and Marco Rubio (R-FL). This bill recognizes the sacrifices made over a 20- or 30-year military career to retirees and seeks to limit the proposed changes in TRICARE.

NAVY EQUIPMENT/PROCUREMENT

The President's fiscal year 2013 budget request included $43.9 billion for Navy and Marine Corps equipment funding. This is a decrease of $2.3 billion below the amount enacted for fiscal year 2012 (5-percent decrease). This includes, within the fiscal year 2013 budget request for the Navy, the proposed decommissioning of seven older cruisers (six of which had been scheduled for modernization), delaying the *Ohio*-class submarine (SSBN–X) replacement program by 2 years, build two fewer littoral combat ships (LCS) over the next 5 years (one from each variant builder), and build only one *Virginia*-class submarine (SSN) in 2014 and delay it to 2018. AUSN is concerned that these funding level decisions are being driven by budget, rather than strategy, and that the Navy procurement levels do not reflect the needs of a strong forward presence, especially in the hostile regions of the Asia-Pacific Theater.

NAVY SHIPBUILDING AND CONVERSION

As the Congress proceeds with consideration of the fiscal year 2013 Defense appropriations bill, it is important that the appropriated funding levels for Navy equipment meet the needs of our Navy as recommended by the President's Strategic Guidance released this past January. In the Strategic Guidance, the Administration highlights that, "we will of necessity rebalance toward the Asia-Pacific region . . . [providing] security in the broader Indian Ocean region." Yet the proposed cuts to Navy platforms in the President's budget request are alarming in that with this refocus in strategy, and the Navy's goal of a 300-plus fleet, appear to hamper this strategy and reduce our Navy's capability, making any attempt to deter hostilities in the Pacific very difficult.

Last year, in the Consolidated Appropriations Act for fiscal year 2012, the Navy was appropriated $14.9 billion for Navy Shipbuilding and Conversion. Of that, for the Advanced Procurement (AP) for the Carrier Replacement Program (AP), $554.7 million, for the *Virginia*-class submarine, $3.2 billion, for the *Virginia*-class submarine (AP), $1.5 billion, for the DDG–1000 Program, $453.7 million, or the DDG–51 Destroyer, $2.0 billion, for the DDG–51 Destroyer (AP), $100.7 million, for the LCS, $1.8 billion and for the joint high speed vessel (JHSV), $372.3 million. Along with the ship cuts in the President's fiscal year 2013 budget request, this year's request for shipbuilding and conversion had dramatic cuts in funding levels from the fiscal year 2012 enacted legislation. The fiscal year 2013 budget request includes a total of $13.6 billion for Navy shipbuilding and conversion (a reduction of $1.3 billion). Of that, for the Carrier Replacement Program, $608.1 million (an increase of $53.4 million), for the *Virginia*-class submarine, $3.2 billion, for the *Virginia*-class submarine (AP), $875 million (a decrease of $625 million), for the DDG–1000 program, $669.2 million (an increase in $215.5 million), for the DDG–51 Destroyer, $3 billion (an increase of $1 billion), for the DDG–51 Destroyer (AP), $466.3 million (an increase of $365.6 million), for the LCS, $1.8 billion, and for the JHSV, $189.2 million (a decrease of $183.1 million).

Although AUSN was pleased to see funding increases between the fiscal year 2012 enacted level and the fiscal year 2013 budget request in some areas, AUSN was alarmed by some of the other drastic reductions, especially in the Future Years Defense Program (FYDP) funding levels, and its effects upon the capability of our Navy to forward project our forces and deter hostilities as required in the President's Strategic Guidance of January 2013.

NAVY RESERVE NATIONAL GUARD AND RESERVE EQUIPMENT ACCOUNT FUNDING

AUSN was pleased last year when the fiscal year 2012 enacted levels for National Guard and Reserve Equipment Account (NGREA) were in historic amounts of $1 billion, of which the Navy Reserve received $75 million. Given the requirements set forth in the annual National Guard and Reserve Equipment Report (NGRER), AUSN would like to see the funding levels for the Navy Reserve increase to match their needs and priorities. With more than 6,000 mobilized or deployed Navy Reserve sailors, providing about one-half of the Navy's ground forces in the Central Command and in other critical roles worldwide, equipping the compatibility with the Active component (AC) is quite the challenge. Equipment in the Navy Reserve is experiencing a service life of more than 20 years for many platforms, adding

sustainment and interoperability challenges in preparing Reserve units to train and deploy mission-ready in support of the Navy's total force.

The Navy Reserve faces many equipping challenges. The first is aircraft procurement where Naval Aviation Plan 2031 provides a requirement to replace the aging and maintenance intensive aircraft that provide critical Reserve component (RC) capability enhancements. In particular, C–130s are a critical part of the Navy-unique fleet essential airlift mission between strategic airlift points and the carrier onboard delivery and vertical onboard delivery to the fleet. In addition are the C–40As, whereas they are continuously being procured, with 14 to date, with help from critical NGREA funding, however the C–40A is still below requirement levels. In addition, the Navy Reserve is facing shortfalls in expeditionary equipment funding and increased procurement in force protection, secure communications and a wide range of logistical equipment will increase the overall capabilities of units serving in contingency operations. Last, the RC Navy Special Warfare sea-air-land (SEAL) teams have been fully integrated with the AC since 2008, making up one-third of the personnel mobilized in support of overseas contingency operations. The RC relies on the equipment of the AC and the shortfalls become a challenge when 97 percent of special warfare personnel are mobilized for current operations.

As our Nation's overseas operations decrease, i.e. Iraq and Afghanistan, Active Duty for Training Funding (ADT) is resulting in increased utilization and driving an unfunded liability as high as $200 million. With the challenges to equip a total force and the increased reliance on the RC in the past decade, AUSN believes that the Navy Reserve should continue to have its funding requirements met to the best of the subcommittee's ability.

PENDING LEGISLATION AND APPROPRIATIONS

AUSN was happy to see that the HAC–D markup included, for Navy Shipbuilding and Conversion, an appropriation of $15.2 billion to remain available for obligation until September 30, 2017 (an increase of 1.7 billion from the fiscal year 2013 budget request). Highlights of this appropriation include for:

—Carrier Replacement Program: $578.3 million;
—*Virginia*-class submarine: $3.2 billion;
—*Virginia*-class submarine—Advance Procurement (AP): $1.6 billion (increase of $723 million for the subcommittee's return of the fiscal year 2014 *Virginia*-class submarine, from the President's fiscal year 2013 budget request of $874.9 million);
—DDG–1000 Program: $699.2 million;
—DDG–51 destroyer: $4 billion (increase $1 billion from President's fiscal year 2013 budget request of $3 billion due to subcommittee adding one additional DDG–51 *Arleigh Burke*-class destroyer);
—DDG–51 Destroyer—Advance Procurement (AP): $466.3 million;
—LCS: $1.8 billion; and
—JHSV: $189.2 million.

In addition, AUSN was pleased to see that the NGREA amount was to include $2 billion; a $1 billion increase in last year's enacted level. We look forward to seeing the Senate Appropriations Committee consider these funding levels in the Senate's fiscal year 2013 DOD appropriations bill.

CONCLUSION

The Association of the United States Navy understands that there are difficult decisions ahead in regards to this year's fiscal year 2013 budget and how the Senate Appropriations Committee considers adequately funding our military, while adhering to the Budget Control Act. Amongst our Legislative Objectives/Priorities for fiscal year 2013 is the looming concern of the effects of an automatic sequestration trigger upon DOD. AUSN was pleased that the Office of Management and Budget ruled in favor of exempting the Department of Veterans' Affairs. However, with our military community relying on TRICARE and DHP, as well as the President's strategic guidance shifting focus to a volatile Asia/Pacific region, cuts to DOD need to be carefully looked at and decisions need to be made based on strategy, rather than budget. On March 15, 2012, in a Senate Armed Services Committee hearing on the fiscal year 2013 budget request, the Secretary of the Navy highlighted how the goal is to have a Navy of more than 300 ships by no later than 2019. In the same hearing, Admiral Jonathan W. Greenert, the Chief of Naval Operations, testified that "In my view, if sequestration kicks in . . . I'm looking at not 285 ships in a given year. I'm looking at 230. We don't have enough force structure to accrue that kind of savings without reducing procurement." However, this raises the concern that as budget cuts progress, with looming DOD sequestration, our fleet size could be dras-

tically reduced, and consequently, so could our capabilities with forward force projection. AUSN urges this subcommittee to look at all proposals to ensure that vital DOD programs and platforms, for our military personnel and our strategic capabilities, aren't subject to further debilitating cuts and sequestration. In addition, we encourage members of the subcommittee to look at our Web site which contains detailed analyses of past and current DOD appropriations measures as the House and Senate Appropriations Committee's markup and consider the fiscal year 2013 DOD appropriations bills. (http://www.ausn.org/Advocacy/AppropriationBills/Defense/tabid/2758/Default.aspx)

Thank you.

Chairman INOUYE. As you can imagine, Admiral, this subcommittee has that assignment of preventing sequestration, and we will do our absolute best. I can assure you that.

Admiral COANE. Thank you, Sir. It's absolutely essential that we do.

Chairman INOUYE. Now may I call upon Dr. Andrew Pollak.

STATEMENT OF ANDREW N. POLLAK, M.D., TREASURER, AMERICAN ASSOCIATION OF ORTHOPAEDIC SURGEONS

Dr. POLLAK. Thank you, Mr. Chairman and Ranking Member. I'm Dr. Andy Pollak, treasurer of the American Association of Orthopaedic Surgeons (AOS) and immediate past president of the Orthopaedic Trauma Association. I'm also chief of orthopaedic traumatology at the University of Maryland's R. Adams Cowley Shock Trauma Center in Baltimore.

On behalf of the AOS and my orthopaedic colleagues across the country, thank you for inviting us to testify before you today on the Peer-Reviewed Orthopaedic Research Program (PRORP).

The events of September 11, 2001, catalyzed the global war on terror, a war that's resulted in thousands of wounded warriors, most of whom wind up with an extremity injury, an injured arm or leg. Between Operations Enduring Freedom, Iraqi Freedom, and New Dawn, more than 47,000 service men and women have been injured, and of those more than 80 percent have suffered a limb injury.

The issue of treating the sheer volume of injuries has been compounded with the newness of the injuries. Improvised explosive devices (IEDs) have overwhelmed our military medical providers with new injuries and scant data on how to best treat them, initially forcing our military surgeons to amputate limbs at an alarming rate.

The PRORP and the Orthopaedic Extremity Trauma Research Program (OETRP) were both created as a result of the Congress's action, specifically this subcommittee's leadership in recognizing the need for more research to save limbs and limit disability in our wounded warriors. PRORP is funded through DOD's health program and was established to quickly develop focused basic and clinical research through direct grants to research institutions across the country. The goal is to help military surgeons address the leading burden of injury and loss of fitness for military duty by finding new limb-sparing techniques to save extremities, avoid amputations, and preserve and restore the function of injured limbs.

PRORP aims to provide all warriors affected by extremity war injuries the opportunity for optimal recovery and restoration of function. One of the greatest successes of OET and PRORP has been the establishment of the Major Extremity Trauma Research Con-

sortium (METRC). METRC works to produce the evidence needed to establish treatment guidelines for the optimal care of the wounded warrior and ultimately improve the clinical, functional, and quality of life outcomes of both servicemembers and civilians who sustain high-energy trauma to the extremities. This research is presently being coordinated at 54 military and civilian sites throughout the country, making it a true military-civilian partnership to help our wounded warriors while learning more about relevant comparable civilian injuries as well.

One important recently published advance attributable directly to OET and PRORP has been the research on heterotopic ossification (HO). HO comes in two main forms, one that appears in children and is congenital and another that strikes wounded military personnel and surgery patients and is triggered by severe injuries and wounds such as amputation.

With HO, the bone grows in abnormal locations and can press against nerves and blood vessels, resulting in severe pain, limited motion, problems fitting prosthetic limbs, and skin breakdown. Nearly 65 percent of wounded warriors with extremity injuries suffer HO, a problem we understood little about prior to this program.

Through a grant from OETRP, researchers at Children's Hospital of Philadelphia have shown that a drug that interrupts a specific signaling pathway can prevent HO. The potential benefit to our wounded warriors is astronomical and that represents an advance that would not have been possible absent this program.

PREPARED STATEMENT

We're under no illusion that this kind of research is cheap. We further understand that we're in an era of unprecedented budget austerity. But the cost of not doing this research is exponentially higher. An amputation costs three times more than limb salvage in future medical care and significantly more than that after accounting for increased disability payments and the need to replace trained servicemembers with new recruits.

Furthermore, while we need to get our fiscal house in order, it can't be done on the backs of our men and women in uniform. If we put them in harm's way, we have a solemn duty to give them the best possible medical care, backed by the best possible science. The Peer-Reviewed Orthopaedic Research Program helps accomplish just that.

Thank you.

[The statement follows:]

PREPARED STATEMENT OF ANDREW N. POLLAK, M.D.

INTRODUCTION

Good morning, Chairman Inouye, Ranking Member Cochran, and other distinguished members of the subcommittee. I am Dr. Andrew N. Pollak, treasurer of the American Association of Orthopaedic Surgeons (AAOS), and immediate past president of the Orthopaedic Trauma Association. I am also the chief of orthopaedic traumatology at the University of Maryland Shock Trauma Center in Baltimore. On behalf of the AAOS and my orthopaedic surgeon colleagues across the country, thank you for inviting our organization to testify before you today on the Peer-Reviewed Orthopaedic Research Program (PRORP) as part of the fiscal year 2013 budget.

OVERVIEW

The events of September 11, 2001, served as a catalyst for the global war on terror. This war has resulted in thousands of wounded warriors, most of whom wind up with an extremity injury. Between Operations Enduring Freedom, Iraqi Freedom, and New Dawn, more than 47,000 service men and women have been injured.[1] Of the injured, more than 80 percent have suffered a limb injury.[2]

The issue of treating the sheer volume of injuries has been compounded with the newness of the injuries. Our men and women in uniform are facing a new type of weapon that causes a new type of injury: improvised explosive devices. Overwhelmed with new injuries and scant data on how best to treat them, our military surgeons were amputating extremities at an alarming rate.

PRORP and the Orthopaedic Extremity Trauma Research Program (OETRP) were both created as a result of the Congress's action, specifically this subcommittee's leadership in recognizing the need for more research to save limbs and limit disability in our wounded warriors. PRORP is funded through the Department of Defense Health Program, and was established to quickly develop focused basic and clinical research through direct grants to research institutions. The goal is to help military surgeons address the leading burden of injury and loss of fitness for military duty by finding new limb-sparing techniques to save extremities, avoid amputations, and preserve and restore the function of injured extremities. PRORP aims to provide all warriors affected by extremity war injuries the opportunity for optimal recovery and restoration of function.

BENEFITS OF RESEARCH

One of the greatest successes of OETRP and PRORP has been the establishment of the Major Extremity Trauma Research Consortium (METRC). METRC works to produce the evidence needed to establish treatment guidelines for the optimal care of the wounded warrior and ultimately improve the clinical, functional, and quality-of-life outcomes of both servicemembers and civilians who sustain high-energy trauma to the extremities. This research is being coordinated at 54 military and civilian sites throughout the country making it a true military civilian partnership to help our wounded warriors while learning more about relevant comparable civilian injuries.

One important recently published advance attributable directly to OETRP and PRORP has been the research on heterotopic ossification (HO). HO comes in two main forms—one that appears in children and is congenital, another that strikes wounded military personnel and surgery patients and is triggered by severe injuries and wounds such as amputation. With HO, the bone grows in abnormal locations and can press against nerves and blood vessels, resulting in severe pain, limited motion, problems fitting prosthetic limbs, and skin breakdown. It is so prevalent after high-energy trauma that nearly 65 percent of wounded warriors with extremity injuries suffer HO.[3] Through a grant from the OETRP program, researchers at The Children's Hospital of Philadelphia have shown that a drug that interrupts a signaling-nuclear protein pathway can prevent HO. The potential benefit to our wounded warriors is astronomical.

COST

We are under no illusion that this kind of research is cheap, we further understand that we are in an era of unprecedented budget austerity. But the cost of not doing the research is exponentially higher. An amputation costs three times more than limb salvage in future medical care and significantly more than that after accounting for increased disability payments and the increased need to replace trained servicemembers with new recruits. Indeed, 65 percent of all combat related medical care resources go to treating extremity injuries, and almost 70 percent of wounded warriors who suffer an unfitting condition are unfit to return to duty because of an extremity injury.[4]

Furthermore, while we need to get our fiscal house in order, it cannot be done on the backs of the men and women in uniform. If we put them in harm's way, we have a solemn duty to give them the best possible medical care backed by the best

[1] Wounded Warrior Project. http://www.woundedwarriorproject.org/mission/who-we-serve.aspx.
[2] United States Army Institute of Surgical Research. http://www.usaisr.amedd.army.mil/extremity__trauma__research__regenerative__medicine.html.
[3] Science Daily. http://www.sciencedaily.com/releases/2011/04/110403141331.htm.
[4] Masini BD, Waterman SM, Wenke JC et al. Resource utilization and disability outcome assessment of combat casualties from Operation Iraqi Freedom and Operation Enduring Freedom. J Orthop Trauma. 2009. 23 (4): 261–266.

possible science. The Peer-Reviewed Orthopaedic Research Program helps accomplish just that.

CLOSING

On behalf of the AAOS, I would like to thank the Chairman, the Ranking Member, and the entire subcommittee for your interest in and attention to this important issue facing America's military, and the surgeons who treat them. We look forward to continuing to work with you on this matter.

Chairman INOUYE. Dr. Pollak, did I hear you say that there were 47,000 injured in Iraq and Afghanistan, and of that number 80 percent had limb injuries?

Dr. POLLAK. Yes, Sir. Yes, the most common injury sustained. Many of them sustain multiple injuries to multiple parts of their body. But the limbs are disproportionately exposed, as the chest and abdomen are protected with body armor and the head's protected with a helmet.

Chairman INOUYE. Do we have enough orthopaedic surgeons?

Dr. POLLAK. That's a separate question, Sir. I don't believe we do at this point. Our orthopaedic surgeons at Walter Reed and at our military facilities throughout the country right now are terribly taxed with the number of wounded warriors returning.

Chairman INOUYE. I thank you very much, Sir.

Dr. POLLAK. Thank you, Sir.

Chairman INOUYE. May I now call on Mr. Mark Haubner and Ms. Erin O'Rourke.

STATEMENT OF MARK HAUBNER, ARTHRITIS FOUNDATION

Mr. HAUBNER. Chairman Inouye, Ranking Member Cochran, and distinguished members of the subcommittee: It's an honor to have the opportunity to speak with you, especially today, June 6, regarding the importance of funding arthritis research to benefit the health of our men and women in uniform, our military veterans, and our Nation.

We would first like to thank the Arthritis Foundation's 2012 Advocacy Leadership Award recipient, Senator Murkowski, for being a champion for the cause of arthritis research in the past.

My name is Mark Haubner, from Aquebogue, New York, and with me in the audience today is Erin O'Rourke from Lake Ronkonkoma, New York. We are here today as Arthritis Foundation advocacy ambassadors and as concerned citizens representing 50 million Americans with arthritis, the number one cause of disability in the United States. We hope that our comments today give voice to this very important request in support of peer-reviewed competitively awarded arthritis research funded by the DOD.

I would like to tell you how arthritis has affected our lives and the relevance to our military personnel. I broke my leg while skiing at the age of 14, underwent many operations as a result, and suffered my first total joint replacement at 44, which forced me into retirement. I'm having my fifth total joint replacement next month, 1 of 1 million joint replacements being done in the United States every year now.

Research now shows that the rampant presence of osteoarthritis in all of my joints is a result of a post-traumatic trigger event suffered 30 years before. My colleague Erin O'Rourke, who began suffering from severe pain in her hands and fingers at the age of 34,

was diagnosed with rheumatoid arthritis (RA), a debilitating autoimmune disease that causes unrelenting and destructive inflammation in the joints. The medications she is taking treat, but do not cure, arthritis. Due to RA, Erin has twice the risk of developing heart disease and diabetes, which will likely lead to a shortened life by almost a decade.

Studies show that our Nation's servicemembers are 32 percent more likely to develop osteoarthritis than the general population, and the damage is presenting itself within a few years of active duty. This is already becoming a great burden on the long-term healthcare provided by the Department of Veterans Affairs and can only increase with time.

One-third of our combat personnel what are medevaced out of the field are suffering from a musculoskeletal injury, and these injuries represent one of the leading causes of disability and medical discharge for active servicemembers under the age of 40. Research is needed for arthritis because the military is facing skyrocketing numbers of Active Duty and retired personnel fighting the high costs of pain and disability associated with arthritis, part of a total of $128 billion per year in this country.

Another area of research concerns the inflammation that occurs with RA. Further investigation of these inflammatory characteristics will help us to understand and improve the healing times and skin graft outcomes in wound care.

Thank you all for recognizing the need over the last 3 years to include post-traumatic osteoarthritis and last year arthritis, which includes both osteo and RA, in the DOD budget for Congressionally Directed Medical Research Program (CDMRP). We deeply appreciate the peer-reviewed research funding awards of almost $5 million from DOD appropriations over the last 2 years.

In conclusion, we ask for your consideration and support of the following: to continue to include the topics of post-traumatic osteoarthritis and rheumatoid arthritis in the fiscal year 2013 DOD appropriations bill for the peer-reviewed medical research program, CDMRP, under the account of Defense Health Programs, research and development. Maintaining arthritis research in the fiscal year 2013 DOD appropriations bill will aid Armed Forces personnel in active service, military veterans, and millions of Americans.

I thank you very much for your time and consideration.

PREPARED STATEMENT

Chairman INOUYE. Did I hear you say that 30 percent of the troops were evacuated because of skeletal injury?

Mr. HAUBNER. Sorry, Sir. It's 32 percent of the military population that's indicating osteoarthritis and one-third of the military population medevaced out, is suffering from a musculoskeletal injury, that's correct.

Chairman INOUYE. Can that be traced to the load they have to carry?

Mr. HAUBNER. Much is indicated by both Navy and Army studies that have been done in the past 5 or 10 years. They're carrying 100-pound packs, 120-pound packs, through the field, broken field running. It's making an immediate impact on their health.

Chairman INOUYE. World War II was easy. My pack was about 20 pounds.

Mr. HAUBNER. And the rifle was probably 18 more.

[The statement follows:]

PREPARED STATEMENT OF THE ARTHRITIS FOUNDATION

Nearly 6.5 million Americans have wounds that take months or even years to heal. Many of these wounds are a consequence of diabetes, which damages blood vessels and interferes with normal skin repair. But new research from Georgetown University Medical Center in Washington, DC, points to another cause: autoimmune diseases such as rheumatoid arthritis (RA) and lupus.

The research was presented earlier this month at the American College of Rheumatology's annual conference, in Chicago, by rheumatologist and lead author Victoria Shanmugam, M.D. It has been accepted for publication in the International Wound Journal.

Dr. Shanmugam had noticed an unusual number of nonhealing wounds—mostly leg ulcers—in people with autoimmune disorders. "What I saw clinically was that people who had autoimmune disease did not respond as well to the usual wound care treatments. I wanted to try to understand the reason for this by comparing healing times and [skin] graft outcomes," she says.

Treatment for nonhealing wounds depends on the wound, but might include special dressings, hyperbaric oxygen, growth factors, bioengineered skin substitutes and skin grafts. If treatment doesn't work, the patient faces amputation.

Dr. Shanmugam and her colleagues reviewed the charts of 340 patients who sought care at Georgetown's Center for Wound Healing and Hyperbaric Medicine during a 3-month period in 2009. Only those with open wounds that hadn't healed after at least 3 months of normal therapy were included.

Forty-nine percent of these patients had diabetes (both type 1, which is itself an autoimmune condition, or type 2). This isn't unusual—diabetes accounts for about one-half of all chronic wounds. Others had vascular or arterial diseases that typically cause poor wound healing. What surprised Dr. Shanmugam was that 23 percent had autoimmune disorders—a far greater rate than had been expected or previously reported. The most prevalent autoimmune diseases were RA (28 percent), lupus (14 percent), and livedoid vasculopathy, a vascular disease that causes ulcers on the lower legs (also 14 percent).

Dr. Shanmugam then looked at how the people with underlying autoimmune disease responded to therapy. "These patients had larger wounds at the first visit, had higher pain scores and took significantly longer to heal—14-and-a-half months compared to just over 10 months for other patients", she explains. "Clearly, there is something in the autoimmune milieu that is inhibiting wound healing," says Dr. Shanmugam.

The next step is a 3-year study funded by the National Institutes of Health. Under way since May, the study will monitor autoimmune-related wounds over time. "We are hoping to get some understanding of what happens on the cellular and molecular level in people who don't heal well," Dr. Shanmugam says.

One theory is that diabetes and autoimmune disorders cause wounds to become stalled in the inflammatory stage of repair, when the body normally develops new blood vessels. Why this occurs and what happens at the level of the wound itself are questions she hopes to answer.

She also will explore whether treating underlying autoimmune diseases such as RA improves wound healing. "There is concern about using potent immune suppressants in people with open wounds," she says, noting that immunosuppressive drugs are known to interfere with wound healing after surgery. "But in a cohort of rheumatoid arthritis patients, we found that aggressive treatment before skin graft surgery resulted in better outcomes."

Eric Matteson, M.D., chairman of rheumatology at Mayo Clinic in Rochester, Minneapolis, agrees with the approach. "People with rheumatoid arthritis develop wounds for many reasons. One is that they may have low-grade vasculitis—inflammation affecting the small blood vessels in the skin. When the wound is related to the underlying systemic inflammation of rheumatoid arthritis, not having that inflammation under control makes it much more difficult to achieve good wound healing."

He says that successful wound care requires cooperation and vigilance. "Perhaps the biggest message here is that treating people with autoimmune-related wounds really calls for a team approach among the rheumatologist, wound-care specialist and surgeon", says Dr. Matteson. "What you often see, unfortunately, is a primary

care doctor who can't properly manage the wound because of the complexity of the underlying disorder."

Dr. Shanmugam believes her findings will affect patient care in the future. "Understanding how people respond to wound care on a molecular level can help guide therapy and may reduce the risk of infections, which can lead to surgery and even amputation," she says.

As important, she hopes her research will alert other physicians to this underrecognized problem. "When a patient has a leg ulcer that hasn't healed after 3 or 4 months of normal treatment, I hope doctors will check for autoimmune disease," says Dr. Shanmugam.

Chairman INOUYE. I thank you very much.

Mr. HAUBNER. Thank you, Sir.

Chairman INOUYE. And now may I call upon Dr. Remington Nevin.

STATEMENT OF REMINGTON NEVIN, M.D., MEFLOQUINE RESEARCH

Dr. NEVIN. Good morning, Mr. Chairman and members of the subcommittee. My name is Dr. Remington Nevin. I am a board-certified preventive medicine physician, epidemiologist, and medical researcher. I'm a graduate of the Uniformed Services University School of Medicine, the Johns Hopkins Bloomberg School of Public Health, and the residency program in preventive medicine at the Walter Reed Army Institute of Research, where I was awarded the Distinguished George M. Sternberg Medal. I have published extensively in medical and scientific journals and my research has informed and broadly influenced military public health policy over the past 7 years.

I'm here today to testify on an important issue which I fear may become the Agent Orange of our generation, a toxic legacy that affects our troops and our veterans. This is a critical issue that is in desperate need of research funding. I'm referring to the harmful effects of the antimalarial drug mefloquine, also known as Lariam®, which was first developed more than 40 years ago by the Walter Reed Army Institute of Research.

Mefloquine causes a severe intoxication syndrome characterized by vivid nightmares, profound anxiety, aggression, delusional paranoia, dissociative psychosis, and severe memory loss. Experience has shown that this syndrome, even if rare, can have tragic consequences both on the battlefield and on the home front.

My recent research has helped us understand this syndrome as a toxic encephalopathy that affects the limbic portion of the brain. With this insight, we now understand the drug's strong links to suicide and to acts of seemingly senseless and impulsive violence. Yet new research suggests that even mild mefloquine intoxication may also lead to neurotoxic brain injury associated with a range of chronic and debilitating psychiatric and neurologic symptoms.

It is unknown how many of the hundreds of thousands of troops previously exposed to mefloquine may be suffering from the devastating effects of this neurotoxicity. However, I can tell you that I am contacted nearly every day by military patients and veterans from the United States and from around the world seeking diagnosis and care for their symptoms. Their compelling and often heart-wrenching stories can be found regularly in media reports worldwide. Invariably, these patients are frustrated by lack of resources and information specific to their condition.

A recent publication by the Centers for Disease Control suggests that the side effects of mefloquine may even confound the diagnosis and management of post-traumatic stress disorder and traumatic brain injury.

Given our research commitments to post-traumatic stress and traumatic brain injury, the first two signature injuries of modern war, this observation calls for a similarly robust research agenda into mefloquine neurotoxic brain injury to ensure that patients with either of these conditions are receiving accurate diagnosis and the very best medical care. Some concrete actions for facilitating this research include expanding the scope and mission of the defense centers of excellence and the National Intrepid Center of Excellence, to include the evaluation and care of patients suffering from the effects of mefloquine, and funding a dedicated mefloquine research center at a civilian medical school or school of public health to attract the very best minds to this problem and to coordinate broad investigations into the pathophysiology, epidemiology, clinical diagnosis, and treatment of mefloquine intoxication and neurotoxic brain injury.

A commitment to this research roughly commensurate with our initial investment in mefloquine's development will allow us to mitigate the effects of the toxic legacy it has left behind. If this issue is left unaddressed, mefloquine could become our next Agent Orange, but it does not have to. With action, mefloquine neurotoxic brain injury could join post-traumatic stress and traumatic brain injury as the third recognized signature injury of modern war and as a result receive the same level of commitment shown for these first two conditions.

PREPARED STATEMENT

I would again like to thank you, Mr. Chairman and members of the subcommittee, for the opportunity to appear before you and bring this issue to your attention. I should emphasize in closing that the opinions I express today are my own and do not necessarily reflect those of the United States Army.

This concludes my prepared statement and I am happy to answer any questions that you may have.

[The statement follows:]

PREPARED STATEMENT OF REMINGTON NEVIN, M.D., MPH

Good morning, Mr. Chairman and members of the subcommittee. My name is Dr. Remington Nevin. I am a board-certified preventive medicine physician, epidemiologist, and medical researcher. I am a graduate of the Uniformed Services University School of Medicine; the Johns Hopkins Bloomberg School of Public Health; and the residency program in preventive medicine at the Walter Reed Army Institute of Research, where I was awarded the distinguished George M. Sternberg Medal. I have published extensively in medical and scientific journals, and my research has informed and broadly influenced military public health policy for the past 7 years.

I am here today to testify on an important issue which I fear may become the "Agent Orange" of our generation: a toxic legacy that affects our troops, and our veterans. This is a critical issue that is in desperate need of research funding.

I am referring to the harmful effects of the antimalarial drug mefloquine, also known as Lariam®, which was first developed more than 40 years ago by the Walter Reed Army Institute of Research.

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severe memory loss. Experience has shown that this syndrome, even if rare, can have tragic consequences, both on the battlefield, and on the home front.

My recent research has helped us understand this syndrome as a toxic encephalopathy that affects the limbic portion of the brain. With this insight, we now understand the drug's strong links to suicide, and to acts of seemingly senseless and impulsive violence. Yet new research suggests that even mild mefloquine intoxication may also lead to neurotoxic brain injury associated with a range of chronic and debilitating psychiatric and neurologic symptoms.

It is unknown how many of the hundreds of thousands of troops previously exposed to mefloquine may be suffering from the devastating effects of this neurotoxicity. I am contacted nearly every day by military patients and veterans, from the United States, and from around the world, seeking diagnosis and care for their symptoms. Their compelling and often heart-wrenching stories can be found regularly in media reports worldwide. Invariably, these patients are frustrated by a lack of resources and information specific to their condition.

A recent publication by the Centers for Disease Control suggests that the side effects of mefloquine may even confound the diagnosis and management of post-traumatic stress disorder (PTSD) and traumatic brain injury (TBI).

Given our commitment to post-traumatic stress and traumatic brain injury, the first two signature injuries of modern war, this observation calls for a similarly robust research agenda into mefloquine neurotoxic brain injury, to ensure that patients with these conditions are receiving accurate diagnosis and the very best medical care.

Some concrete actions for facilitating this research include:

—Expanding the scope and mission of the Defense Centers of Excellence and the National Intrepid Center of Excellence to include the evaluation and care of patients suffering side effects from mefloquine; and

—Funding a dedicated mefloquine research center at a civilian medical school or school of public health, to attract the very best minds to this problem, and to coordinate broad investigations into the pathophysiology, epidemiology, clinical diagnosis, and treatment of mefloquine intoxication and neurotoxic brain injury.

A commitment to this research, roughly commensurate with our initial investment in mefloquine's development, will allow us to mitigate the effects of the toxic legacy it has left behind. If this issue is left unaddressed, mefloquine could become our next "Agent Orange", but it does not have to. With appropriate action, mefloquine neurotoxic brain injury could join PTSD and TBI as the third recognized signature injury of modern war, and as a result, receive the same level of commitment and care shown for these first two conditions.

In conclusion, I would again like to thank you, Mr. Chairman and members of the subcommittee, for the opportunity to appear before you and bring this issue to your attention. This concludes my prepared statement and I am happy to answer any questions that you may have.

Chairman INOUYE. I thank you very much, Doctor. I have a question here submitted by Senator Dianne Feinstein and it says: Do you believe the mefloquine research you're working on could develop treatments to reverse intoxication and brain injury?

Dr. NEVIN. Mr. Chairman, despite the permanent nature of the neurotoxicity produced by mefloquine, I believe that there may be effective treatments available right now, provided that the diagnosis of mefloquine neurotoxicity is made. I have personally treated a number of patients whose conditions have proven fairly responsive to rehabilitation, including vestibular, physical, and neuro-optometric therapy. Speech therapy and cognitive rehabilitation therapy may also hold promise.

However, obtaining access to such therapy requires that mefloquine neurotoxic brain injury be correctly diagnosed, such that patients receive appropriate specialist referrals. This cannot happen if these symptoms are poorly understood by healthcare providers or if they are mistaken for such things as malingering, personality disorder, conversion disorder, or factitious disorder, as they have been in the past.

For this reason, simply raising awareness of this diagnosis may prove very helpful in facilitating early treatment.

Now, regarding other therapies, such as potential drug treatments, evaluating these would require registered clinical trials, which typically have a time horizon of some years before they yield results to inform clinical practice. I am confident that such trials hold promise in identifying drug therapies that alleviate symptoms and improve patient outcomes, while not risking a further exacerbation of the condition.

Chairman INOUYE. Where does mefloquine come from?

Dr. NEVIN. Mr. Chairman, mefloquine is the end product of a multiyear drug development and discovery effort conducted by the Walter Reed Army Institute of Research beginning in the early 1960s. Of more than 300 compounds screened for their effectiveness and toxicity, mefloquine was one of a handful of compounds that passed this testing and later went on to commercial development by the F. Hoffman LaRoche Company.

PREPARED STATEMENT

Chairman INOUYE. I thank you very much, and I'd like to thank all of the witnesses who've testified this morning.

Two organizations have submitted testimony. Without objection, the testimony of Cummins, Incorporated and Research Advisory Committee on Gulf War Veterans' Illnesses will be made part of the record along with any other statements that the subcommittee may receive.

On behalf of the subcommittee, I thank all the witnesses for their testimony, and the subcommittee will take these issues in consideration and I can assure you will look at it very seriously.

[The statement follows:]

PREPARED STATEMENT OF DR. WAYNE A. ECKERLE, VICE PRESIDENT, RESEARCH AND TECHNOLOGY, CUMMINS INC.

Cummins Inc., headquartered in Columbus, Indiana, is a corporation of complementary business units that design, manufacture, distribute and service engines and related technologies, including fuel systems, controls, air handling, filtration, emission solutions, and electrical power generation systems. The funding requests outlined below are critically important to Cummins' research and development efforts, and would also represent a sound Federal investment toward a cleaner environment and improved energy efficiency for our Nation. We request that the subcommittee fund the programs as identified below.

DEPARTMENT OF THE ARMY

Army Procurement

Other Procurement, Budget Activity 03, Other Support Equipment, Line No. 171, Generators, Line Item: 0426MA9800, Generators and Associated Equipment.—Support the administration's request of $60.3 million in fiscal year 2013. $67.8 million was appropriated in fiscal year 2012. Specifically support the $16.7 million for M53500, Medium Generator Sets (5–60 kW) and $33.983 million for R62700 Power Units/Power Plants. Advanced Medium Mobile Power System (AMMPS) generators and AMMPS Power Units and Power Plants (trailer-mounted AMMPS generator sets) are the latest generation of Prime Power Generators for the Department of Defense (DOD) and will replace the obsolete Tactical Quiet Generators (TQGs) developed in the 1980s. AMMPS generator sets are 21 percent more fuel-efficient, 15 percent lighter, 35 percent quieter, and 40 percent more reliable than the TQG. Generators are the Army's biggest consumer of diesel fuel in current war theatres. When AMMPS generator sets are fully implemented, the Army and Marines will realize annual fuel savings of approximately 52 million gallons of JP–8 fuel and more than $745 million in savings based on fuel costs and current use pattern. This will

mean fewer fuel convoys to bases in active war zones resulting in saved lives of military and civilian drivers. AMMPS generators will result in annual carbon emissions reductions of 500,000 metric tons CO_2 or 7.7 million metric tons over the expected life of the generators.

Weapons and Tracked Combat Vehicles, Budget Activity 01, Tracked Combat Vehicles, Line No. 07, Modification of Tracked Combat Vehicles, Line Item 2073GZ0410, Paladin Integrated Management Mod In Service, Paladin Integrated Management.—Support administration's request of $206.1 million in fiscal year 2013. $46.8 million was appropriated in fiscal year 2012 to begin low-rate initial production. The M109A6 Paladin is the primary indirect fire weapons platform in the U.S. Army's Heavy Brigade Combat Team (HBCT) and is expected to be in the Army inventory through 2050. The PIM program will incorporate Bradley-based drive-train and suspension components which reduce logistics footprint and decrease operations and sustainment costs. PIM is vital to ensuring the long-term viability and sustainability of the M109 family of vehicles (Paladin and FAASV). The program will significantly reduce the logistics burden placed on our soldiers, and proactively mitigate obsolescence. The system will feature improved mobility (by virtue of Bradley-based automotive systems) allowing the fleet to keep pace with the maneuver force. The system will improve overall soldier survivability through modifications to the hull to meet increased threats.

Research and Development Test and Evaluation Programs

Budget Activity 05, System Development and Demonstration, Line No. 121, Program Element No. 0604854A: Artillery Systems, Paladin Integrated Management .—Support the administration's request of $167.8 million in fiscal year 2013. $120.1 million was appropriated in fiscal year 2012. The M109A6 Paladin is the primary indirect fire weapons platform in the U.S. Army's HBCT and is expected to be in the Army inventory through 2050. This request is to further develop Paladin Integrated Management (PIM) vehicles and conclude testing. The PIM effort is a program to ensure the long-term viability and sustainability of the M109A6 Paladin and its companion ammunition resupply vehicle, the M992 FAASV. PIM is vital to ensuring the long-term viability and sustainability of the M109 family of vehicles (Paladin and FAASV). The program will significantly reduce the logistics burden placed on our soldiers and proactively mitigate obsolescence. The system will feature improved mobility (by virtue of Bradley-based automotive systems) allowing the fleet to keep pace with the maneuver force.

Budget Activity 07, Operational Systems Development, Line No. 165, Program Element No. 0203735A: Combat Vehicle Improvement Programs.—Support the administration's request of $253.9 million in fiscal year 2013. $36.2 million was appropriated in fiscal year 2012 to initiate the program. Specifically support $74.1 million for the Armored Multi-Purpose Vehicle (AMP–V) program. AMP–V is an Army program that replaces the M113 platforms, which cannot be optimized for future U.S. Army combat operations. The Army has identified a significant capability gap within the HBCT formation. The Bradley Family of Vehicles are the most capable and cost effective platform for replacement of the M113. Along with established production, the recapitalized Bradley vehicles bring combat- proven mobility, survivability, and adaptability to a variety of missions. The Army currently has approximately 1,900 Bradley hulls that could be inducted into the production process. This low cost, low risk, Military-off-the-Shelf (MOTS) to replace the M113 addresses the significant capability shortfalls within the HBCT formation. In addition, it is an efficient use of existing Government-owned assets and existing Public-Private Partnership arrangements to bridge the modernization gap. Recapitalizing existing Bradley chassis provides the most survivable, mobile and protected solution for our soldiers at a significant lower cost.

DEPARTMENT OF THE AIR FORCE

Other Procurement

Budget Activity 04, Other Base Maintenance and Support Equip, Item No. 62, Mobility Equip.—Support the administration's request of $23.8 million ($14.4 million Base and $9.4 million OCO) in fiscal year 2013. $20.3 million was appropriated in fiscal year 2012. Specifically support $6.7 million ($4.6 million base and $2 million OCO) in fiscal year 2013 for the Basic Expeditionary Airfield Resource (BEAR). The BEAR product is an 800kW prime power mobile generator used by Combat Air Forces to power mobile airfields in-theatre and around the world. The finished product will replace the existing MEP unit that is 25 years old and will offer greater fuel economy, increased fuel options (JP–8), improved noise reduction, and the latest innovative control technology and functionality. With the ever-increasing global

reach of the U.S. military, the need for reliable mobile power is paramount. This program is currently funded for the design, development and preproduction of eight individual BEAR units. These units will undergo a battery of validation tests. Design and development of the BEAR product is on schedule. There is interest from other branches of the military for the BEAR product as well given the increased need for mobile electric power.

DEPARTMENT OF THE NAVY

Other Procurement, Marine Corps

Budget Activity 06, Engineer and Other Equipment, Line No. 47, Line Item 6366, Power Equipment Assorted.—Support the administration's request of $76.5 million ($56.3 million Base and $20.2 million OCO) in fiscal year 2013. $27.2 million was appropriated in fiscal year 2012. Specifically support $26.5 million ($19.5 million Base and $7 million OCO) in fiscal year 2013 for AMMPS. AMMPS generators are the latest generation of Prime Power Generators for the DOD and will replace the obsolete Tactical Quiet Generators (TQGs) developed in the 1980s. AMMPS generator sets are 21 percent more fuel-efficient, 15 percent lighter, 35-percent quieter and 40 percent more reliable than the TQG. Generators are the Army's biggest consumer of diesel fuel in current war theatres. When AMMPS generator sets are fully implemented, the Army and Marines will realize annual fuel savings of approximately 52 million gallons of JP–8 fuel and more than $745 million in savings based on fuel costs and current use pattern. This will mean fewer fuel convoys to bases in active war zones resulting in saved lives of military and civilian drivers. AMMPS generators will result in annual carbon emissions reductions of 500,000 metric tons CO_2 or 7.7 million metric tons over the expected life of the generators.

PREPARED STATEMENT OF JAMES BINNS, CHAIRMAN OF RESEARCH ADVISORY COMMITTEE ON GULF WAR VETERANS' ILLNESSES

Dear Chairman Inouye and Ranking Member Cochran: The Gulf War Illness Research Program (GWIRP) of the Department of Defense (DOD) Congressionally Directed Medical Research Program (CDMRP) has made remarkable progress during the past 2 years. As Chairman of the Research Advisory Committee on Gulf War Veterans Illnesses, created by Public Law 105–368, I deeply appreciate your support, which has made this progress possible.

I also appreciate the hearing you held this week to consider appropriations to CDMRP programs for fiscal year 2013 and am pleased to submit this letter for the record, to review these recent developments.

In its landmark 2010 report, the Institute of Medicine (IOM) recognized that the chronic multisymptom illness that affects 250,000 gulf war veterans is a serious disease (not attributable to psychiatric illness) that also affects other U.S. military forces. It called for a "renewed research effort with substantial commitment to well-organized efforts to better identify and treat multisymptom illness in Gulf War veterans."

The scientific community responded with a dramatic increase in the quality and quantity of proposals submitted to the GWIRP at CDMRP. Most importantly, last summer CDMRP-funded researchers from the University of California, San Diego, completed the first successful pilot study of a medication to treat one of the major symptoms of gulf war illness. It is not a cure, and the study needs be replicated in a full-clinical trial, but the result is extremely encouraging. As the IOM committee chair, Dr. Stephen Hauser, chairman of Neurology at the University of California, San Francisco, and former president of the American Neurology Association, emphasized in his preface to the IOM report, "we believe that, through a concerted national effort and rigorous scientific input, answers can likely be found."

The GWIRP is the only national program addressing this problem. It is a peer-reviewed program open to any doctor or scientist on a competitive basis. By contrast, Department of Veterans Affairs (VA) research programs are only open to VA doctors, few of whom have expertise in chronic multisymptom illness. To effectively address a new and difficult problem like this, it is necessary to enlist the entire medical scientific community. Because VA has not been able to find enough qualified researchers, it has reduced funding for gulf war illness research in its fiscal year 2013 budget from $15 million to $4.9 million. In contrast, the DOD CDMRP program is attracting a surplus of excellent investigators. It is critical to shift resources accordingly to the DOD program, so that the overall Federal research effort is not reduced just at the time it is producing results and the Institute of Medicine is pointing the way. The VA budget data is at http://www.va.gov/budget/docs/sum-

mary/Fy2013__Volume__II-Medical__Programs__Information__Technology.pdf on page 3A–5.

As stated by Dr. Hauser, in his attached letters to you, this subject is "vital to the health and effectiveness of current and future military forces, in addition to Gulf War veterans." Recognizing this importance, last summer the House of Representatives in a bipartisan roll-call vote increased funding for the program to $10 million in the 2012 DOD appropriations bill, and this figure was adopted by the Senate-House conference committee.

The Research Advisory Committee has recommended funding this program at the $40 million level. It is recognized that in fiscal year 2013 such an increase may not be possible. However, this effective program demonstrably merits increased investment, even in a time of fiscal austerity. Dr. Hauser has recommended $25 million. An appropriation of $20 million would hold Federal gulf war illness research level from last year, taking into account the $10 million VA reduction.

These funds would be productively spent to capitalize on the progress that has already been made. Specifically, there are quality projects in the pipeline that substantially exceed $25 million. These include highly ranked treatment pilot studies not able to be funded in previous years due to financial constraints (approximately $20 million), a followup clinical trial of the treatment shown effective in the completed pilot study (approximately $8 million), and three joint "consortium" treatment research programs developed with earlier planning grants by teams of researchers at different institutions (approximately $24 million, of which only $4 million has been funded).

At long last, the scientific community has recognized the severity and scope of this problem and is engaged in its solution. The Congress has created this superb program, which is succeeding where others have failed. Please enable these scientists to continue their work.

CONCLUSION OF HEARINGS

Chairman INOUYE. This subcommittee will take these issues into consideration, I can assure you, as we develop the fiscal year 2013 defense appropriations bill.

This subcommittee will reconvene on Wednesday, June 13, at which time we'll meet to receive testimony from the Secretary of Defense and the Chairman of the Joint Chiefs of Staff on the fiscal year 2013 budget request for DOD.

We stand in recess.

[Whereupon, at 12:02 p.m., Wednesday, June 6, the hearings were concluded, and the subcommittee was recessed, to reconvene subject to the call of the Chair.]