Military-Veterans Advocacy Written Testimony in Support of S 681

Submitted to the United States Senate
Veterans Affairs Committee

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Executive Director
May 13, 2015
Introduction

Distinguished Committee Chairman Johnny Isakson, Ranking Member Richard Blumenthal and other members of the Committee; thank you for the opportunity to present the Association’s views on the Blue Water Navy Vietnam Veterans Act (S. 681).

About Military-Veterans Advocacy

Military-Veterans Advocacy Inc. (MVA) is a tax exempt IRC 501[c][3] organization based in Slidell Louisiana that works for the benefit of the armed forces and military veterans. Through litigation, legislation and education, MVA works to advance benefits for those who are serving or have served in the military. In support of this, MVA provides support for various legislation on the State and Federal levels as well as engaging in targeted litigation to assist those who have served.

Along with the Blue Water Navy Vietnam Veterans Association, Inc (BWNVVA) MVA has been the driving force behind the Blue Water Navy Vietnam Veterans Act (S. 681). Working with Members of Congress and United States Senators from across the political spectrum, MVA and BWNVVA provided technical information and support to sponsors who have worked tirelessly to restore the benefits stripped from the Blue Water Navy veterans thirteen years ago. Senators Gillibrand, Peters, Sanders, Moran, Brown, Tester, Klobuchar and Daines, along with, Congressman Chris Gibson have been steadfast supporters of this important legislation. Currently the House companion bill, HR 969, has 218 co-sponsors.

Military-Veterans Advocacy’s Executive Director Commander John B. Wells USN (Ret.)

MVA’s Executive Director, Commander John B. Wells, USN (Retired) has long been viewed as the technical expert on S. 681. A 22 year veteran of the Navy, Commander Wells served as a Surface Warfare Officer on six different ships, with over ten years at sea. He possessed a mechanical engineering subspecialty, was qualified as a Navigator and for command at sea, and served as the Chief Engineer on several Navy ships. As Chief Engineer, he was directly responsible for the water distillation and distribution system. He is well versed in the science surrounding this bill and is familiar with all aspects of surface ship operations.

Since retirement, Commander Wells has become a practicing attorney with an emphasis on military and veterans law. He is counsel on several pending cases concerning the Blue Water Navy and has filed amicus curiae briefs in other cases. Since 2010 he has visited over 400 Congressional and Senatorial offices to discuss the importance of enacting this bill. He is recognized in the veterans community as the subject matter expert on this matter.

Historical Background

In the 1960's and the first part of the 1970's the United States sprayed over 12,000,000
gallons of a chemical laced with 2,3,7,8-Tetrachlorodibenzodioxin (TCDD) and nicknamed Agent Orange over southern Vietnam. This program, code named Operation Ranch Hand, was designed to defoliate areas providing cover to enemy forces. Spraying included coastal areas and the areas around rivers and streams that emptied into the South China Sea. By 1967, studies initiated by the United States government proved that Agent Orange caused cancer and birth defects. Similar incidence of cancer development and birth defects have been documented in members of the United States and Allied armed forces who served in and near Vietnam.

Throughout the war, the United States Navy provided support for combat operations ashore. This included air strikes and close air support, naval gunfire support, electronic intelligence, interdiction of enemy vessels and the insertion of supplies and troops ashore. Almost every such operation was conducted within the territorial seas.

The South China Sea is a fairly shallow body of water and the thirty fathom curve (a fathom is six feet) extends through much of the territorial seas. The gun ships would operate as close to shore as possible. The maximum effective range of the guns required most operations to occur within the territorial seas as documented in the attachment. Often ships would operate in harbors or within the ten fathom curve to maximize their field of fire. The maximum range on shipboard guns (except the Battleship 16 inch turrets) required the ship to operate within the territorial seas in order to support forces ashore.

It was common practice for the ships to anchor while providing gunfire support. Digital computers were not yet in use and the fire control systems used analog computers. By anchoring, the ship’s crew was able to achieve a more stable fire control solution, since there was no need to factor in their own ship’s course and speed. It was also common for ships to steam up and down the coast at high speeds to respond to calls for fire missions, interdict enemy sampans and other operational requirements.

Small boat transfers were conducted quite close to land. Many replenishments via helicopter took place within the territorial seas. Small boat or assault craft landings of Marine forces always took place within the territorial seas. Many of these Marines re-embarked, bringing Agent Orange back aboard on themselves and their equipment. Additionally mail, equipment and supplies staged in harbor areas were often sprayed before being transferred to the outlying ships. Embarking personnel would take boats or helicopters to ships operating in the territorial seas. The Agent Orange would adhere to their shoes and clothing as well as to mail bags and other containers. It would then be tracked throughout the ship on the shoes of

1 The red line on the chart is known as the base line. Vietnam uses the straight baseline method which intersects the outermost coastal islands. The dashed line is twelve nautical miles from the baseline and represents the territorial seas. The bold line marks the demarcation line for eligibility for the Vietnam Service Medal. Prior to 2002, the VA granted the presumption of exposure to any ship that crossed the bold line. S-681 will restore the presumption only to a ship that crosses the dashed line.
embarking personnel and the clothing of those handling mail and other supplies brought aboard. Their clothing was washed in a common laundry, contaminating the laundry equipment and the clothing of other sailors.

Flight operations from aircraft carriers often occurred outside of the territorial seas. As an example, Yankee station was outside of the territorial seas of the Republic of Vietnam. Dixie Station, however, was on the border of the territorial seas. Some carriers, especially in the South, entered the territorial seas while launching or recovering aircraft, conducting search and rescue operations and racing to meet disabled planes returning from combat. Aircraft carriers also entered the territorial seas for other operational reasons. Many times these planes flew through clouds of Agent Orange while conducting close air support missions. These planes were then washed down on the flight deck, exposing the flight deck crew to Agent Orange.

**Agent Orange Act of 1991.**


The Agent Orange Act of 1991 further required the Secretary to “take into account reports received by the Secretary from the National Academy of Sciences and all other sound medical and scientific information and analyses available to the Secretary.” The Secretary is further required to consider whether the results are statistically significant, are capable of replication, and withstand peer review. The responsibility to prepare a biennial report concerning the health effects of herbicide exposure in Vietnam veterans was delegated to the Institute of Medicine (IOM), a non-profit organization which is chartered by the National Academy of Sciences.

The Department of Veterans Affairs (hereinafter VA) drafted regulations to implement the Agent Orange Act of 1991 and defined “service in the Republic of Vietnam” as “service in the waters offshore and service in other locations if the conditions of service involved duty or visitation in the Republic of Vietnam.” 38 C.F.R. § 3.307(a)(6)(iii) (1994). This was in contrast to a previous definition which defined “service in Vietnam” as “service in the waters offshore, or service in other locations if the conditions of service involved duty or visitation in Vietnam.” 38 C.F.R. § 3.313 (1991). These regulations allowed the presumption of exposure throughout the Vietnam Service Medal area, the dark solid line marked on the Exhibit. Under this definition, a ballistic missile submarine was covered as were the aircraft carriers on Yankee Station and submarines conducting operations in the Gulf of Tonkin in an area of the coast where no Agent Orange was sprayed. These ships would not be covered under S 681.

In 1997 the VA General Counsel issued a precedential opinion excluding service members who served offshore but not within the land borders of Vietnam. The opinion
strue the phrase “served in the Republic of Vietnam” as defined in 38 U.S.C. § 101(29)(A) not to apply to service members whose service was on ships and who did not serve within the borders of the Republic of Vietnam during a portion of the “Vietnam era.” The opinion stated that the definition of the phrase “service in the Republic of Vietnam” in the Agent Orange regulation, 38 C.F.R. § 3.307(a)(6)(iii), “requires that an individual actually have been present within the boundaries of the Republic to be considered to have served there,” and that for purposes of both the Agent Orange regulation and section 101(29)(A), service “in the Republic of Vietnam” does not include service on ships that traversed the waters offshore of Vietnam absent the service member's presence at some point on the landmass of Vietnam.”

After lying dormant for a few years, this General Counsel opinion was incorporated into a policy change that was published in the Federal Register during the last days of the Clinton Administration. The final rule was adopted in Federal Register in May of that year. Comments by the VA concerning the exposure presumption recognized it for the “inland” waterways but not for offshore waters or other locations only if the conditions of service involved duty or visitation within the Republic of Vietnam.

Historically the VA’s Adjudication Manual, the M21-1 Manual, allowed the presumption to be extended to all veterans who had received the Vietnam service medal, in the absence of “contradictory evidence.” In a February 2002 revision to the M21-1 Manual, the VA incorporated the VA General Counsel Opinion and the May 2001 final rule and required a showing that the veteran has set foot on the land or entered an internal river or stream. This “boots on the ground” requirement is in effect today.

**Hydrological Effect**

The Agent Orange that was sprayed over South Vietnam was mixed with petroleum. The mixture washed into the rivers and streams and discharged into the South China Sea. In addition, the riverbanks were sprayed continuously resulting in direct contamination of the rivers. The dirt and silt that washed into the river can be clearly seen exiting the rivers and entering the sea. This is called a discharge “plume” and in the Mekong River it is considerable. Although the Mekong has a smaller drainage area than other large rivers, it has approximately 85% of the sediment load of the Mississippi. In two weeks, the fresh water of the Mekong will travel several hundred kilometers. Notably, the Agent Orange dioxin dumped off the east coast of the United

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States was found in fish over one hundred nautical miles from shore.⁶

By coincidence, the baseline and territorial seas extend further from the mainland off the Mekong River. At its widest point off the Mekong, the territorial seas extend to 90 nautical miles from the mainland. This was due to the location of the barrier islands owned by Vietnam. Given the more pronounced effect of the Mekong plume, however, the broader area off the Mekong Delta is appropriate. The force of the water in this area is greater than the river discharge in other parts of the country.

Eventually, the Agent Orange/petroleum mixture would emulsify and fall to the seabed. Evidence of Agent Orange impingement was found in the sea bed and coral of Nha Trang Harbor.⁷ During the Vietnam War, the coastline, especially in the harbors and within the thirty fathom curve was a busy place with military and civilian shipping constantly entering and leaving the area in support of the war effort. Whenever ships anchored, the anchoring evolution would disturb the shallow seabed and churn up the bottom. Weighing anchor actually pulled up a small portion of the bottom. The propeller cavitation from military ships traveling at high speeds, especially within the ten fathom curve, impinged on the sea bottom. This caused the Agent Orange to constantly rise to the surface. The contaminated water was ingested into the ship’s evaporation distillation system which was used to produce water for the boilers and potable drinking water. Navy ships within the South China Sea were constantly steaming through a sea of Agent Orange molecules.

**The Australian Factor and the Distillation Process**

In August of 1998 Dr. Keith Horsley of the Australian Department of Veterans Affairs met Dr. Jochen Mueller of the University of Queensland’s National Research Centre for Environmental Toxicology (hereinafter NRCET) in Stockholm at the “Dioxin 1998" conference. Horsley shared a disturbing trend with Mueller. Australian VA studies showed a significant increase in Agent Orange related cancer incidence for sailors serving offshore over those who fought ashore. Based on that meeting, the Australian Department of Veterans Affairs commissioned NRCET to determine the cause of the elevated cancer incidence in Navy veterans.

In 2002, as the American Department of Veterans Affairs (VA) was beginning to deny the presumption of exposure to the United States Navy veterans, NRCET published the result of

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⁶ Belton, et. al, 2,3,7,8-Tetrachlorodibenzo-p-Dioxin (TCDD) and 2,3,7,8-Tetrachlorodibenzo-p-Furan (TCDF), In Blue Crabs and American Lobsters from the New York Bight, New Jersey Department of Environmental Protection (November 12, 1988).

their study. Their report noted that ships in the near shore marine waters collected water that was contaminated with the runoff from areas sprayed with Agent Orange. The evaporation distillation plants aboard the ships co-distilled the dioxin and actually enriched its effects. As a result of this study, the Australian government began granting benefits to those who had served in an area within 185.2 kilometers (roughly 100 nautical miles) from the mainland of Vietnam.

**Institute of Medicine (IOM) Reports**

In June of 2008, Blue Water Navy representatives presented to the IOM’s Committee to Review the Health Effects in Vietnam Veterans of Exposure to Herbicides (Seventh Biennial Update) in San Antonio, Texas. That Committee report accepted the proposition that veterans who served on ships off the coast of the Republic of Vietnam were exposed to Agent Orange and recommended that they **not be excluded** from the presumption of exposure. The Committee reviewed the Australian distillation report and confirmed its findings based on Henry’s Law. The VA did not accept these recommendations. Instead then Secretary Shinseki ordered another IOM study. On May 3, 2010, Blue Water Navy representatives testified before the Institute of Medicine’s Board on the Health of Special Populations in relation to the project “Blue Water Navy Vietnam Veterans and Agent Orange Exposure.” They concluded: (1) There was a plausible pathway for some amount of Agent Orange to have reached the South China Sea through drainage from the rivers and streams of South Vietnam as well as wind drift, (2) The distillation plants aboard ships at the time which converted salt water to potable water did not remove the Agent Orange dioxin in the distillation process and enriched it by a factor of ten, (3) Based on the lack of firm scientific data and the four decade passage of time, they could not specifically state that Agent Orange was present in the South China sea in the 1960's and 1970's, (4) There was no more or less evidence to support its presence off the coast than there was to support its presence on land or in the internal waterways and (5) Regarding the decision to extend the presumption of exposure “given the lack of measurements taken during the war and the almost 40 years since the war, this will never be a matter of science but instead a matter of policy.” Notably this report did not contradict the findings of the Seventh Biennial report that the Blue Water Navy personnel should not be excluded from the presumption of exposure.

The IOM’s Eighth Biennial Update recognized that “it is generally acknowledged

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that estuarine waters became contaminated with herbicides and dioxin as a result of shoreline spraying and runoff from spraying on land.”\textsuperscript{11} The Ninth Biennial Update stated that “it is generally acknowledged that estuarine waters became contaminated with herbicides and dioxin as a result of shoreline spraying and runoff from spraying on land, particularly in heavily sprayed areas that experienced frequent flooding.”\textsuperscript{12}

**Law of the Sea**

The Agent Orange Act of 1991 provides that:

... [A] veteran who, during active military, naval, or air service in the Republic of Vietnam during the period beginning on January 9, 1962, and ending on May 7, 1975, and has ...[Diabetes Mellitus (Type 2)] shall be presumed to have been exposed during such service to an herbicide agent containing dioxin ... unless there is affirmative evidence to establish that the veteran was not exposed to any such agent during service.


Vietnam claims as internal or inland waters the landward side of the baseline.\textsuperscript{13} Additionally, bays such as Da Nang Harbor are considered part of inland waters and under international law are the sovereign territory of the nation.\textsuperscript{14}

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The Secretary has recognized the presumption of exposure for those who served onboard ships who were in “inland” waters. The VA definition only includes inland rivers and does not cover the bays and harbors. Recently the Court of Appeals for Veterans Claims has rejected the VA’s exclusion of Da Nang Harbor from the definition of inland waters as irrational and not entitled to deference. In this case, the Court reviewed the case of a veteran whose ship was anchored in Da Nang Harbor but who did not set foot on land. Da Nang Harbor is surrounded on three sides by land and is considered inland waters under international law. The VA is now required to rationally specify what they consider to be inland waters.

**Cost of S 681**

In October of 2012, the Congressional Budget Office provided a preliminary estimate that the Blue Water Navy Vietnam Veterans Act would cost $2.74 billion over ten years. The estimate is currently being recomputed based on information provided in a meeting between CBO and MVA. CBO originally used a gross exposure population of 229,000 people. This estimate was based on the number of veterans serving within the Vietnam Service Medal area. The Navy Historical and Heritage Command and the Congressional Research Service estimated that the number of sea service veterans serving inside the territorial seas was 174,000. Of the 713 ships deployed to Vietnam, however, there is documentation that 330 have entered the inland rivers. An MVA analysis, provided to CBO, estimates 81,000 sea service veterans are already covered under the existing inland waters provision. Of the remaining 93,000 veterans, MVA estimates another 10% of the crews actually set foot in Vietnam. This includes crew members who went ashore for conferences, to pick up supplies, equipment or mail and those who piloted and crewed the boats and/or the helicopters that operated between the ships and shore. Additionally, some personnel went ashore to see the doctor, the dentist, the chaplain or the lawyer. They called home. Shopped at the PX and departed on emergency leave or permanent change of station orders. Additionally, men reporting to the ship would often transit though Vietnam. Finally, a number of ships that were at anchorage would send a portion of the crew ashore for beach parties or liberty.

Some Blue Water Navy veterans, especially those who served 20-30 years, manifested symptoms while on active duty. They are automatically service-connected for those diseases and should not be considered in computing the cost of the bill.

There will be a dollar for dollar offset for Navy veterans currently receiving a non-service connected pension as well as those receiving non-service connected medical treatment at Veterans Health Administration (VHA) facilities. Additionally, under concurrent receipt laws, some veterans who are also military retirees will have a dollar for dollar offset due to waiver of their Title 10 pension (less federal tax liability).

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As most Blue Water Navy veterans are in their 60's they are Medicare eligible or will become Medicare eligible during the ten year cost cycle. In a previous report, the CBO has compared the cost of Medicare treatment with treatment at a VHA facility.\textsuperscript{16} One of the key findings of this report was that private sector Medicare services would have cost about 21 percent more than services at a VHA facility. When dealing with retirees, the cost would be greater since Medicare only provides coverage for 80\% of the cost. Tricare for Life provides an additional 20\% coverage for military retirees.

While S. 681 will require an expenditure of funds, many of the costs will be recoverable. CBO is revising their score. MVA estimate that the 10 year cost will be $1 billion or less.

\textbf{Common VA Misrepresentations}

The VA has consistently opposed the expansion of the presumption of exposure. Whether it is a reluctance to admit an error or other bureaucratic arrogance is unknown, but they have invariably misrepresented the facts surrounding this issue. As a result, tens of thousands of veterans have died without the compensation and care that they have earned. Additionally, the spouses of veterans were forced to leave the work force early to nurse sick husbands suffering from the ravages of Agent Orange. Many of these survivors have been left destitute.

Some common misrepresentations are as follows:

\textbf{Misrepresentation:} The Australian distillation study was never peer reviewed.  
\textbf{MVA Comment:} The report was presented for review at the 21st International Symposium on Halogenated Environmental Organic Pollutants and POPs and is published in the associated peer reviewed conference proceedings: Müller, J.F., Gaus, C., Bundred, K., Alberts, V., Moore, M.R., Horsley, K., 2001. It was also reviewed and confirmed by two separate committees of the IOM.

\textbf{Misrepresentation:} There is no evidence that the evaporation distillation process used by the Australians was the same as used on United States ships.  
\textbf{MVA Comment:} All steam ships used a similar system which remained in place until the 1990's. In addition many of the Australian gun ships were the United States \textit{Charles F. Adams} class and were built in the United States. Both the MVA Executive Director and another experienced Navy Chief Engineer have reviewed the Australian report. They concluded the distillation systems therein were the same as used by U. S. ships.

\textbf{Misrepresentation:} There is no evidence that Navy ships distilled potable water.

\textsuperscript{16} Congressional Budget Office, \textit{Comparing the Costs of the Veterans’ Health Care System With Private-Sector Costs} (December 2014)
MVA Comment: Ships carried a reserve of potable water but it was normally replenished by distillation daily or every other day. A Destroyer sized ship carried less than 20,000 gallons for a crew size between 275 and 300 men. The water was used for cooking, cleaning, laundry, showering and drinking. As Vietnam is in the tropics, significant hydration was necessary. In addition, the warmer sea injection temperature below the 17\textsuperscript{th} parallel resulted in less efficient water production. Water hours, where showers were limited or banned, was common during tropical deployments. Water was constantly being distilled to meet the requirements for boiler feed water and potable water.

Misrepresentation: The Australian study monitored the reverse osmosis system rather than the evaporation distillation system used on U. S. ships.
MVA Comment: The only time that the reverse osmosis system was used in the Australian study was to purify the baseline sample prior to adding the solids and sediments consistent with the estuarine waters of Vietnam. The actual distillation process, as confirmed above, was the same distillation system used by U. S. Ships.

Misrepresentation: The IOM found more pathways of Agent Orange exposure for land based veterans than those at sea.
MVA Comment: Technically this is true but irrelevant. The IOM noted that discharges from rivers and steams was a pathway unique to the Blue Water Navy and that it was one of the plausible pathways of exposure. The number of possible pathways is not determinative. What is conclusive is that pathways of exposure existed.

Misrepresentation: The IOM could not quantify any Agent Orange in the water.
MVA Comment: This again is a red herring. Any amount of exposure can do damage to the human body. The IOM also found that the evaporation distillation process enriched the dioxin by a factor of ten. This is consistent with Australian studies showing a higher cancer incidence among Navy veterans and a Center for Disease Control study showing a higher incidence of Non-Hodgkins Lymphoma among Navy veterans.

Misrepresentation: Ships operating hundreds of miles off shore who were not exposed will be given the presumption of exposure.
MVA Comment: Not true. This bill applies only to the territorial seas which at their widest point off the Mekong extends out to 90 nautical miles from the mainland. In the central and northern part of the Republic of Vietnam, the territorial seas would only extend 20-30 nautical miles from the mainland.

Misrepresentation: Submarines would come into the area to obtain the Vietnam Service Medal for their crews and would be eligible for the presumption.
MVA Comment: One ballistic missile submarine the USS Tecumseh, SSBN 628 did enter the VSM area for that purpose but there is no indication that they entered the territorial seas. Submarines operating off of Haiphong or near Hainan Island would not have been within the territorial seas and are not covered by S-681.
**Misrepresentation:** No Agent Orange was sprayed over water.  
**MVA Comment:** Not true. MVA is in possession of statements from witnesses that ships anchored in Da Nang Harbor were inadvertently sprayed as the “Ranch Hand” planes made their approach to the airfield. Additionally, there are anecdotal reports of defective spray nozzles resulting in spray over the ships at anchor or operating in the South China Sea. Finally, the IOM recognized that the offsetting winds would blow some spray intended for the landmass over water.

**Misrepresentation:** Navy regulations prevented ships from distilling water within ten miles of land.  
**MVA Comment:** This statement was taken out of context from a preventive medicine manual and was not a firm requirement. Ships were encouraged to not distill potable water near land because of the possibility of bacteriological contamination. Commanding Officers could allow potable water to be distilled close to land and often delegated that authority to the Chief Engineer. The IOM noted that the recommendation contained in the manual was widely ignored. More importantly, the recommendations in the manual did not apply to the distillation of feed water for use in the boilers. Since the same equipment was used for potable water, distillation to feed water would contaminate the entire system down to the final discharge manifold. Additionally, feed water used in auxiliary systems was discharged to the bilges via low pressure drains. Crew members would also be exposed to Agent Orange residue while cleaning and inspecting the watersides of boilers and the steam sides of condensers as well as other equipment.

**Misrepresentation:** The IOM confirmed that there was no likelihood of exposure to herbicides in Da Nang Harbor.  
**MVA Comment:** The court in *Gray v. McDonald*, took the VA to task for this statement noting that this was not the conclusion of the IOM.

**Conclusion.**

MVA urges the adoption of S. 681. It will restore the earned benefits to tens of thousands of Navy veterans that were taken from them over a decade ago. This bill is supported by virtually all veterans organizations including the American Legion, Veterans of Foreign Wars, Vietnam Veterans of America, Reserve Officers Association, Fleet Reserve Association, Military Officers Association of America, Association of the U. S. Navy and other groups. We have always enjoyed the support of the Military Coalition. Enactment of this legislation is overdue and Military-Veterans Advocacy most strongly supports its passage.

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