United States Senate
WASHINGTON, DC 20510

June 11, 2019

Captain Todd D. Moore
Commanding Officer
Naval Submarine Base New London
NAVSUBASE NL
Box 00
Groton, Connecticut 06349

Dear Captain Moore:

We first want to congratulate you on taking command of Naval Submarine Base New London earlier this month, and welcome you to Connecticut. We are very proud of our state's critical role in the development of our submarine fleet and the many contributions Naval Submarine Base New London makes to our community.

As you know, you have taken command of the "Home of the Submarine Force" – a historic Navy installation to which every officer and almost every enlisted Sailor in the submarine force will be assigned at least once during their career. The SUBASE houses operations essential to national security, including maintaining attack and nuclear submarines, conducting medical research, and training sailors.

We are fortunate to have your leadership, expertise, and dedication to military service, and we look forward to working with you on many issues that impact the U.S. Navy and the SUBASE community. Climate change has had – and will continue to have – a significant impact on our environment and quality of life. For the military, the effects can undermine the effectiveness of our defense capabilities. We are gathering information on how Connecticut's military installations and defense industry are addressing climate change and how they are taking steps to reduce their energy footprint. As you transition to your new role and outline top priorities for the SUBASE, we write to encourage you to consider making climate readiness a key component of your tenure, and to offer our support in bolstering current or future plans for the SUBASE to become more energy efficient and climate resilient.

It is clear that the SUBASE has considered the causes and effects of climate change in the past. As you may be aware, your predecessors – with the support and cooperation of state and local government leaders – launched several initiatives to improve energy efficiency and reduce greenhouse gas emissions. Specifically, Captain Denno, Captain Carl Lahti, and Captain Whitescarver each worked to reduce energy costs and improve grid independence by advancing

the installation of a 7.4-megawatt fuel cell park at the SUBASE.[1] The SUBASE is collaborating with Danbury-based FuelCell Energy on the implementation of this project, which will ultimately reduce reliance on foreign energy and provide the SUBASE with a reliable, secondary source of clean energy that can be stored as backup power in the event of a grid outage.

In addition to the SUBASE's laudable efforts to reduce its carbon footprint and improve its energy independence and security, it is critical that the SUBASE also consider how to best adapt to vulnerabilities from the effects of climate change. We are already seeing the impacts of climate change at military installations across the country. In January, the Department of Defense (DOD) released its 2019 "Report on Effects of a Changing Climate to the Department of Defense"[2] (Report). This Report concluded that our defense infrastructure and military operations are vulnerable to the effects of climate change.

In addition to physical threats from flooding, drought, desertification, wildfires, and thawing permafrost, the Report notes that the changing climate may impact DOD's operations by acting as a threat multiplier. Climate change exacerbates instability and conflicts over natural resources and simultaneously creates new ones: for example, the ongoing Syrian civil war partially began in response to an unprecedented five-year drought linked to anthropogenic climate change.[3] Additionally, the Office of the Director of National Intelligence has listed climate change and related social conflicts among the biggest threats facing our country in 2019 and beyond.[4] As average global temperatures rise, the SUBASE may be called upon to support DOD operations related to climate-linked events – like disaster relief and climate-fueled conflicts – and must be prepared for any scenario.

The Department of Defense has already taken important steps to prepare our service members and military installations for climate-related shifts in natural and human environments, and to keep Americans safe. These efforts include documenting regional climate shifts, modeling future scenarios, and assessing the effects of sea level rise on coastal bases and operations. In response to climate change, the Department has begun to proactively consider climate resilience in the planning, design, and completion of physical structures and operations;[5] and is in the process of conducting mitigation and remediation programs to minimize risk to existing structures and operations.[6] These are important steps toward improving climate resilience Department-wide and across all military installations.

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[1] Bergman, Julia. "Sub Base, Energy Officials Mark Groundbreaking for Fuel Cell Park," *State of Connecticut Office of Military Affairs* July 25, 2018, https://www.ct.gov/oma/cwp/view.asp?a=3422&Q=604160&PM=1

[2] U.S. Department of Defense, "Report on Effects of a Changing Climate to the Department of Defense," January 2019, https://media.defense.gov/2019/Jan/29/2002084200/-1/-1/1/CLIMATE-CHANGE-REPORT-2019.PDF

[3] Stokes, Elaisha. "The Drought that Preceded Syria's Civil War was Likely the Worst in 900 Years." *Vice News* March 3, 2016, https://climateandsecurity.org/2012/02/29/syria-climate-change-drought-and-social-unrest/

[4] U.S. Office of the Director of National Intelligence, "Worldwide Threat Assessment of the U.S. Intelligence Community," 29 January 2019, https://www.dni.gov/files/ODNI/documents/2019-ATA-SFR---SSCI.pdf

[5] See "Background" in *Report on Effects of a Changing Climate to the Department of Defense*

[6] U.S. Department of Defense, "Mission Assurance Strategy," April 2012, https://policy.defense.gov/Portals/11/Documents/MA_Strategy_Final_7May12.pdf

Although the New London SUBASE was not identified as an at-risk Navy installation in the Report, it may be vulnerable to the effects of a warming climate due to its location near the mouth of the Thames River. Specifically, the SUBASE may experience many of the climate-related effects facing other military installations, like recurrent flooding, higher rates of land and river bank erosion, and more extreme weather. The Connecticut Institute for Resilience and Climate Adaptation at the University of Connecticut predicts that sea level at Connecticut's coasts could rise by seven feet by 2100, posing significant, immediate risks to SUBASE infrastructure despite its higher elevation.[7] These changes have the potential to inflict costly and dangerous damage to physical infrastructure, such as roads, buildings, and submarines at the SUBASE.

In light of the severity of this issue, we seek your cooperation in providing us with additional information regarding the SUBASE's efforts to adapt to the increasing threat of climate change. Rest assured, we will fight to secure the necessary resources to improve resiliency at the SUBASE. To this end, we respectfully request that you respond to the following questions:

- How, if at all, is climate change currently affecting the SUBASE?
- How, if at all, do you expect climate change to affect the SUBASE in the future?
- Are there any unique geographic or biological factors of the SUBASE particularly that make it more or less resilient to climate change?
- What actions, if any, has the SUBASE taken to improve its resilience to short (0 to 20 years) and long-term (20 to 100 years) environmental and climate changes?
- Are there any additional authorities or appropriations that you may require in order to effectively analyze and mitigate the potential impacts of climate change at the SUBASE?

We would also be interested in scheduling a visit to the SUBASE to meet with you and discuss the way forward to improve climate resiliency and readiness on military installations. Thank you again for your service as New London SUBASE Commander, and we look forward to working with you and other Navy leaders on the critical issue of climate change.

Sincerely,

RICHARD BLUMENTHAL
United States Senate

CHRISTOPHER S. MURPHY
United States Senate

[7] O'Donnell, James. "Sea Level Rise in Connecticut" *Connecticut Institute for Resilience and Climate Adaptation* October 2018, https://circa.uconn.edu/2018/03/27/sea-level-rise-projections-for-the-state-of-connecticut-webinar-recording-available/