About the Torchlight Initiative and Missile Community Cancer Study

BACKGROUND: The Torchlight Initiative was developed by Veterans of the nuclear missile mission to educate/inform public and government stakeholders while providing an independent voice for United States Air Force (USAF) and United States Space Force (USSF) members and their families impacted by cumulative effects of toxic exposures occurring during service in the Intercontinental Ballistic Missile (ICBM) mission area

MISSION: Our mission is to address health issues of vital interest to the ICBM community, specifically where higher rates of cancer and associated disorders impact those that operated, maintained, supported, or protected ICBM delivery systems

GOALS: The Torchlight Initiative has established advocacy goals reflecting the change we hope to affect in the USAF and the ICBM mission area

- Validate through continuous environmental monitoring that current and future ICBM environments are safe, healthy facilities for all personnel while maintaining the vital deterrent capability inherent in the ICBM mission
- Provide past, present, and future missile community members with health and safety education, health monitoring, and timely medical care for toxic exposures and cumulative health effects over time through U.S. Air Force and Veteran's Administration (VA) health services
- Establish a VA service-connected disability recognition, rating, and compensation program for missile-related toxic exposures; includes disregard or recission of the 2001 *Exposure Assessment of Missile Crew Members in the 564th Missile Squadron* (MS) and the 2005 *A Review of Cancer in Missileers at Malmstrom AFB, Montana* study findings. These inherently flawed studies prevent proper VA assessment of Veteran illnesses related to service in the USAF missile mission
- Advocate and inform U.S. Congress oversight of Department of the Air Force (DAF) and USAF School of Aerospace Medicine (USAFSAM) to identify chemicals, compound agents, and other hazards or phenomena causing elevated cancer incidence and mortality risks among members of the missile community

VISION:

- **Perform Education/Awareness/Monitoring:** Torchlight educates and builds awareness for health issues impacting our community and encourage the DoD to proactively monitor and screen members of the USAF missile community
- **Manage Cancer Registry**: Torchlight maintains a self-reported registry of missile community cancer diagnoses to support and inform data gathered by formal studies performed by USAF School of Aerospace Medicine (USAFSAM)
- **Inform USAFSAM Cancer Study Design:** Provide community insight in the USAFSAM study design based on academic and ICBM mission expertise of Torchlight Initiative members. Ensure Active-Duty and Veterans have answers to the following questions:
    - What were the submitted study design protocols and statistical analysis plan?
    - How will all veterans of this mission set be contacted and screened if they are not participating in military retiree health care or VA health care systems?
    - How does the study team plan to evaluate environments and equipment in place during times that the affected population served (1990s-early 2000s)?
    - What weapon system and environmental differences between Malmstrom and other locations are potential links to higher cancer rates?

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DESIRED OUTCOMES:

- **Exposure Documentation Through Dept. of Veterans Affairs (VA):** The missile community's permanent medical records should consistently and completely document all toxic exposures related to military service
    - Torchlight Initiative advocates for all former/current/future community members and their families to receive proper assessment and VA service-connected ratings for illnesses incurred from toxic exposures and cumulative exposure effects
    - The VA does not consistently recognize that toxic exposure in the missile field environment results in disease and has denied direct service-connection of non-Hodgkin lymphoma (NHL) for some while awarding service connection and disability ratings for others
- **Recension of Flawed Previous Work Environment Studies:** Previous studies performed by the USAF in 2001 and 2005 asserting "safe and healthy work environments" at Malmstrom AFB are flawed. At a minimum, the VA should not reference/use these studies when making service-connected illness determinations based on new evidence of lingering PCB contamination discovered by USAFSAM in 2023. The VA has quoted these studies as reason for denial of service connection and benefits to some Veterans of Malmstrom AFB diagnosed with NHL
    - Studies performed in the 564th Missile Squadron (MS) (see 2001 study) contain single samples taken from five (5) facilities, P0, Q0, R0, S0 and T0 Launch Control Centers (LCCs)
    - Conclusions from air, water, soil, and facility interior sampling in the 564th MS cannot be applied to facilities in the 10th, 12th and 490th MS
    - The real property infrastructure, environmental controls, weapon system components of the Minuteman A/M System facilities (10th/12th/490th MS) were built between 1962-64 with equipment provided by Boeing
    - Minuteman B System facilities (564th MS) were built between 1966-67 with a completely different facility design with equipment provided by Sylvania. Referred to as the "Odd Squad", the squadron was the same configuration as the LCCs at Grand Forks AFB, ND with a notable exception of the 564th MS being upgraded to the Rapid Execution and Combat Targeting (REACT) command and control system in the mid-1990s
- **Advisement to Current and Future Studies:** The Missile Community Cancer Study is a step toward identifying if members have a higher-than-expected rate of cancers and if exposures in the ICBM facilities are leading to these and related illnesses
    - Torchlight Initiative serves to inform future study design and ensure third-party medical, environmental and ICBM mission expert participation
    - As of 25 Sep 23, Torchlight has documented 269 cancer cases in the missile community. 41 of those cases are non-Hodgkin lymphoma

- **Documenting Historical Work Environment and Presumptive Past Exposures:** Current efforts to monitor air, water, interior surfaces and other potential exposures are important to ensure the safety of the current Active-Duty force. Initial study results focus on current Minuteman III facilities and do not include exposure hazards present in the past
    - America owes it to our Veterans to determine the cause and source(s) of increased cancer rates, including cumulative effects of multiple exposure sources which may no longer be present
    - Major modifications made over the last three decades significantly changed the composition of the work environment including:

      Rapid Execution and Combat Targeting (REACT) command/control system

      REACT Service Life Extension Program (RSLEP)

      ICBM Security Modernization Program (ISMP)

      Propulsion Replacement Program (PRP)

      Guidance Replacement Program (GRP)

      Launch Control Center (LCC) Steam Humidifier Modification

      LCC and Launch Facility (LF) Battery Replacement

      LCC and LF Environmental Control System (ECS) Replacement Program

      Remote Visual Assessment Program (Phases I and II)

      LCC Deep Clean Project

      LCC Block Upgrade (LCCBU)
    - Historical work environments (documented by Civil Engineering and ICBM System Program Office) with personal accounts of exposures must be reviewed and vetted. This includes known PCB spills, sewage backup, air quality concerns, and external/local environmental sources
- **Complete Facility Understanding and Inclusion:**
    - There are pre-REACT Minuteman facilities that are now museums and test areas that should be included in current study efforts
        - Q01 Missile Alert Facility - Wyoming State Park (near Iron Mountain, WY)
        - D01 and D09 Minuteman Missile National Historic Site (near Philip, SD)
        - O01 Launch Control Facility (Whiteman AFB, MO)
        - Oscar Zero – Ronald Reagan Minuteman Missile Site (near Cooperstown, ND)
        - Strategic Missile Integration Complex (SMIC) (Hill AFB, UT)
        - 01A and 01E Minuteman Test Facilities (576th Flight Test Squadron, Vandenberg SFB, CA)
        - Delta Zero Test Facility (Vandenberg SFB, CA) – Currently being converted for use for the Sentinel ICBM system

- **Communicating Personal Narratives:** The Torchlight Initiative believes the lack of continuity and written documentation concerning missile community cancer cases over the past 60 years have led to missed ques and missed opportunities to identify toxic exposure connections to military work environments
    - The Torchlight Initiative encourages missile community members and their families to document their diagnosis or toxic exposure experience related to ICBMs
    - Personal narratives serve as testament to other community members and organizations researching cancer associated with the ICBM mission. Community members are encouraged to share their story, the story of a friend, teammate, or family member
    - Understanding missile community cancer diagnoses builds awareness for others, and documents impacts associated with toxic exposures
    - Increased awareness leads to self-advocacy and potential early diagnosis, care, and medical treatment, improving outcomes for the affected population
- **Coordination and Communication:** The Torchlight Initiative coordinates with other government and non-government organizations, sharing key points of our mission, vision, data and collective experiences, including:
    - HunterSeven Foundation
    - Hawkeye Initiative
    - Association of Air Force Missileers (AAFM) afmissileers.org
    - USAF School of Aerospace Medicine (USAFSAM)
    - Red River Fighter Pilot's Association
- **Torchlight Initiative Resources and References:**
    - Aug 1994 GAO Report: DOD Needs to Better Identify/Monitor PCBs
    - Dec 2001 Exposure Assessment of 564 MS Missile Crew Members
    - Apr 2005 Review of Cancer in Missileers at Malmstrom Air Force Base, Montana
    - May 2007 Environmental Assessment/564 MS Minuteman III Deactivation
    - July 2023 AFSPC/SG Memo: Cancer Concerns Among Missileers
    - AFGSC Town Hall Study Slides – Current Cancer Study Methodology