



Air Force Global Strike Command

Missile Community Cancer Study (MCCS) Update



**Lt Gen Michael J. Lutton
AFGSC/CD
October 2025**



Air Force Global Strike Command

Missile Community Cancer Study Town Hall

Thank you for joining us today.

The Town Hall will begin at 1400 Central Time.

To submit a question for this Town Hall, email your question to:

afgsc.paworkflow@us.af.mil

We will monitor this email throughout the Town Hall



Missile Community Cancer Study Objectives



Assess the as-is environmental state at the three active Missile Wings.

Environmental Sampling



Identify the risk of exposure to our Airman and develop institutional processes to document and communicate potential risks for Airman and their families.

DOEHRS/ILER



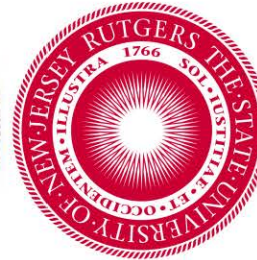
Understand the scope of potential exposures, 1976 through current day, and document exposures for DoD, separated and retired members, families, and VA partners.

Epidemiology Review



External Partners

- Environmental Protection Agency - Sampling/Hazard Cleaning/Remediation/Mitigation
- Environmental Sampling – Experts from AF Institute of Technology; Wright State University; Rutgers University
- Epidemiology Study – Experts from National Institute of Occupational Safety and Health, Wright State University, University of Cincinnati, and University of Nebraska Medical Center
- Hazard Documentation – ILER Working Group; DOEHRS
- Burn Study – 711 Human Performance Wing/Human Effectiveness Directorate; University of Dayton, Ohio



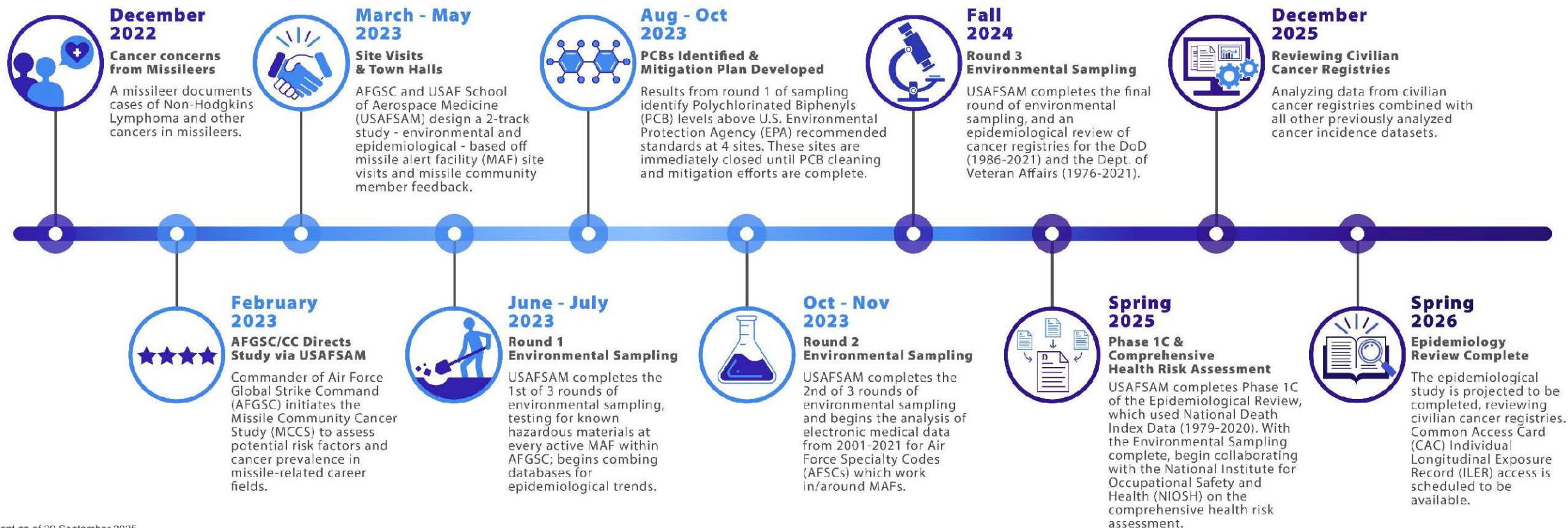
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MCCS Timeline/Recap

December 2022 - Space Force Guardian and Former Missileer started an important dialogue: *Do Missileers have an increased cancer risk?*

Missile Community Cancer Study Current Timeline

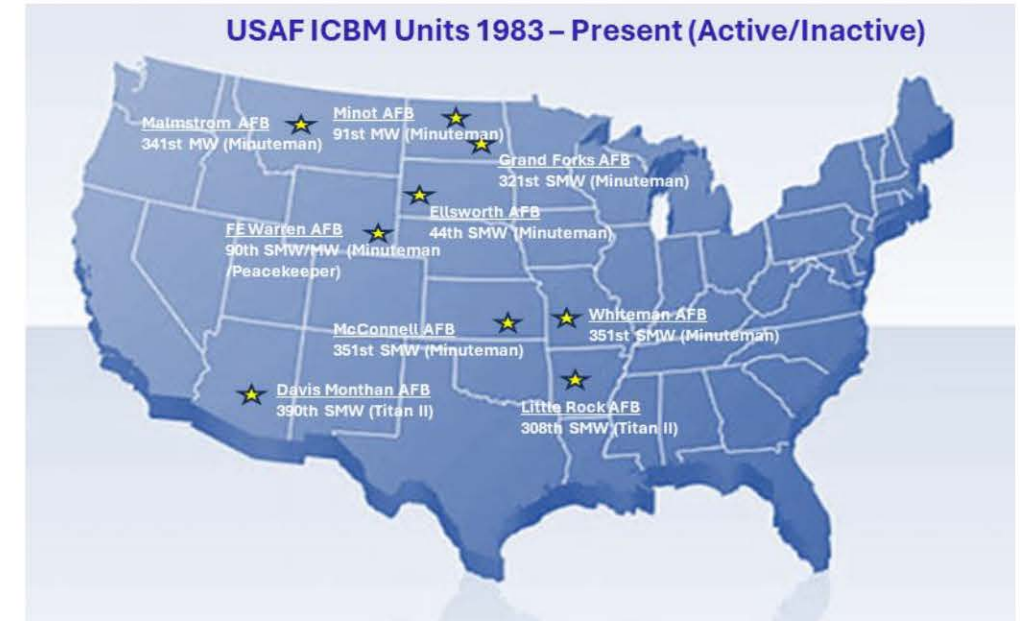




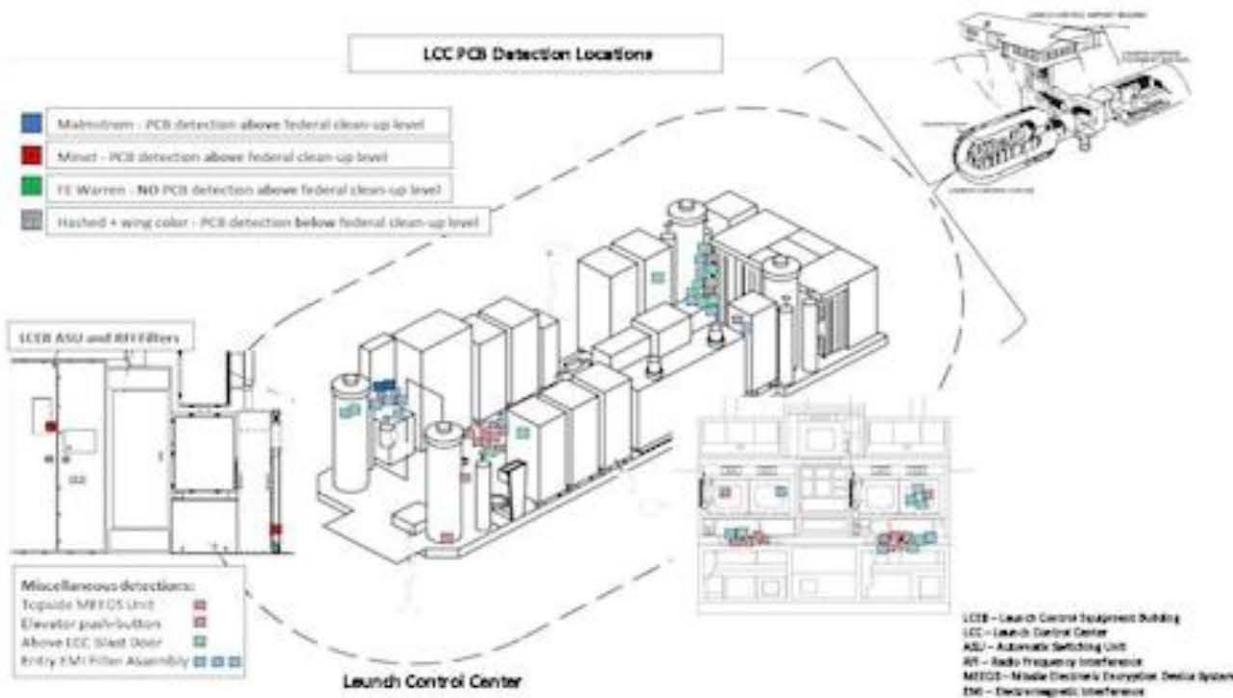
Ongoing Efforts

■ PCB response protocols standardization complete

- Maintenance Technical Orders (TOs)
- Civil Engineer Manuals
- Signage



- **Missile Alert Facility (MAF)** improve environmental system inspection processes
- Deep Cleaning contract in progress
- PCB Cleaning contract in progress
- **Launch Facility (LF)** PCB sampling integrated into inspection processes



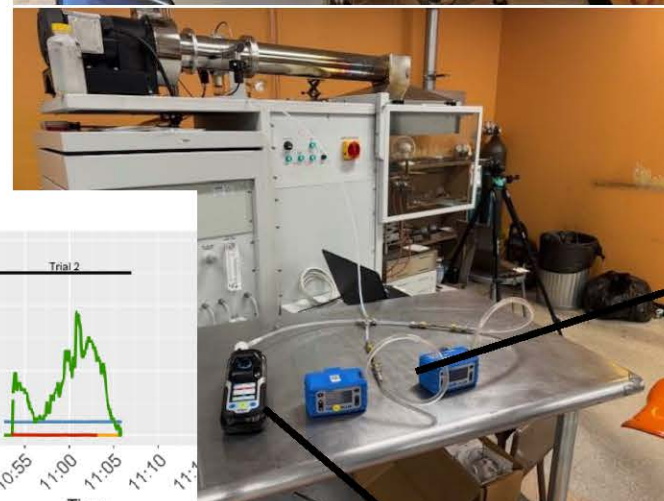


Chemistry and Predictive Risk

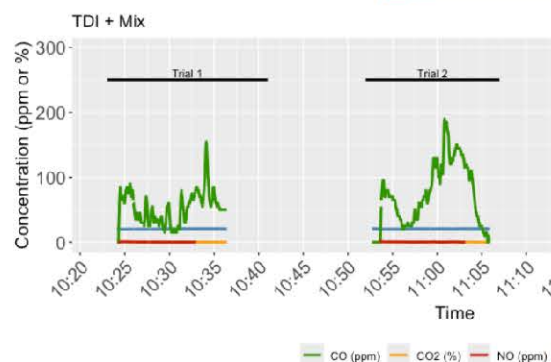
- Burn tests to measure chemical emissions
 - 6 total conditions studied: 3 with TDI labels, 3 with crypto tape – **completed 4 Sep 25**
 - Emissions samples collected for offline analysis of metals and specific volatile compounds
 - Sampled for 4 combustion gases, 89 toxic organics and 26 metals based on Safety Data Sheet analysis
 - Detected 24 chemicals and 0 metals
 - Identified 31 non-target chemicals
 - Predictive risk team working to evaluate hazard and level of toxicity – **analysis in progress**



Particulate Samplers



Chemical Samplers

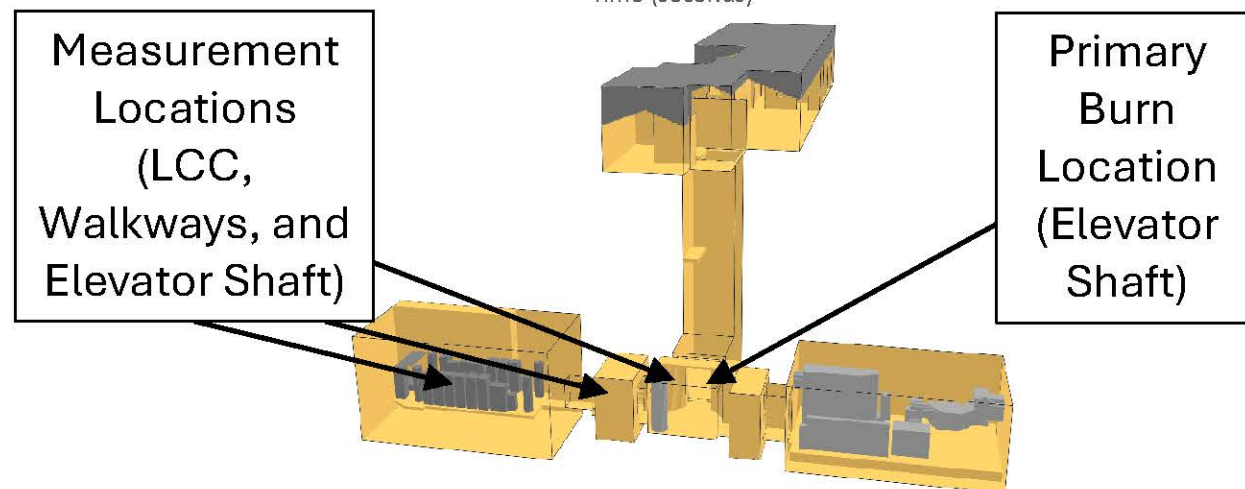
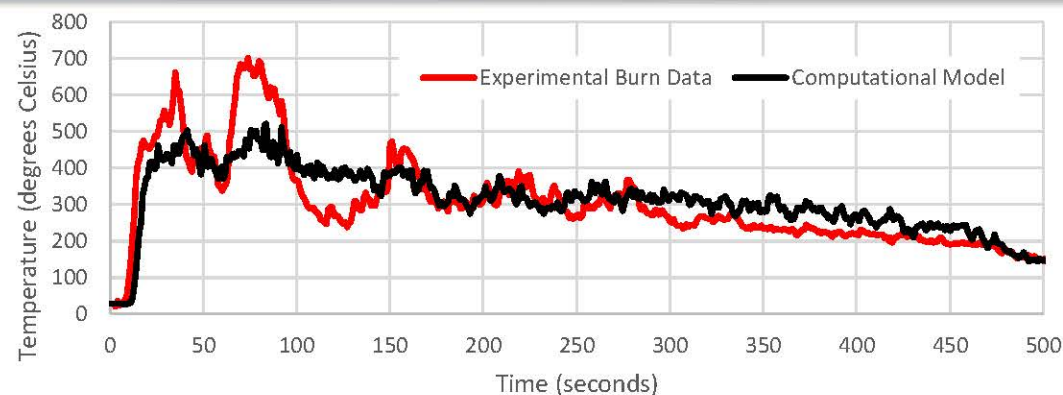


Multi gas Sampler



Physics Based Modeling

- Physics-based modeling to determine exposure levels throughout control centers
- Burn model validated against test burn data collections – *completed*
- Geometry built with computer-aided design file and facility ventilation parameters from AFGSC/A3O – *completed*
- Emissions from burns used by models to predict exposure levels throughout facility – *in progress*



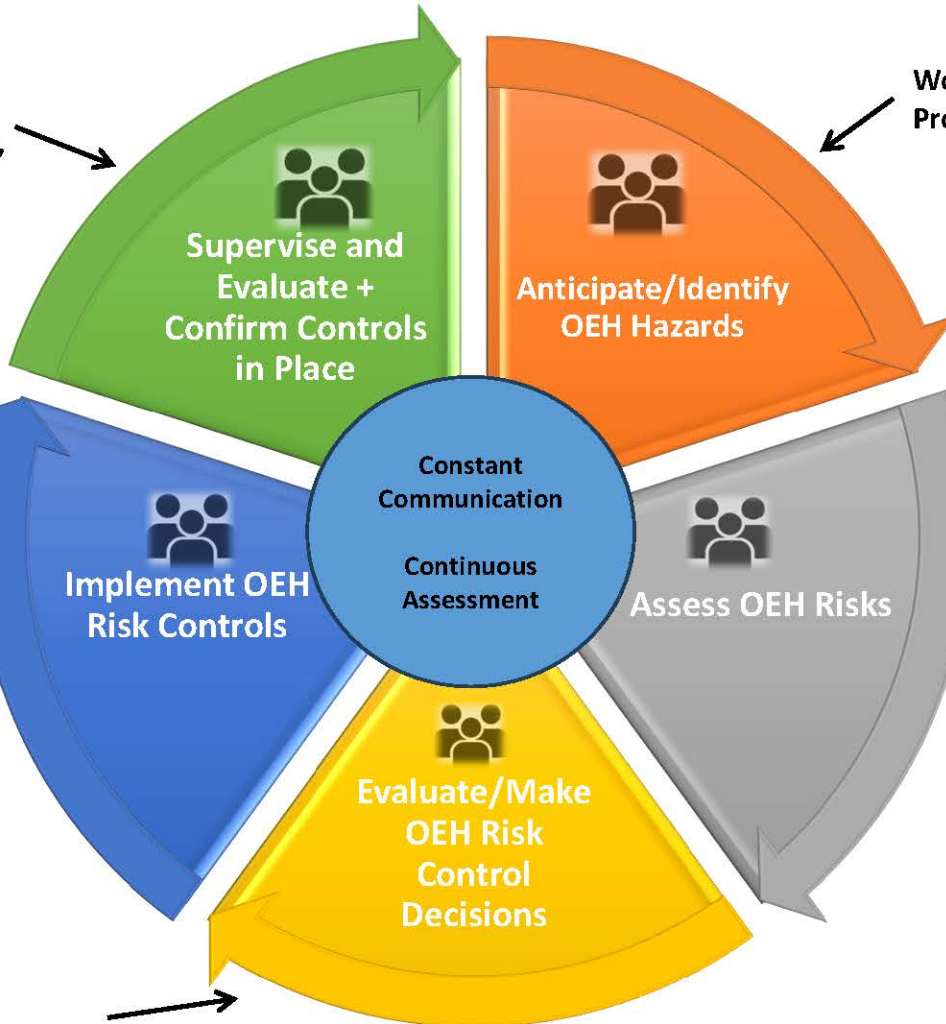
CAD drawings represent Minot and FE Warren; physics based-modeling exposure levels will include Malmstrom specific CAD drawings




Combination of Burn Emissions Measurements, Toxicology Modeling and Physics-Based Modeling will clarify health risk from burning TDI labels and Crypto tape



Occupational Health Assessment

- Workplace Supervisors, Workplace Visits, Safety Inspections   
- Medical Surveillance, Work Related Illness/Injury, Trend Analysis, Follow-up   



Workplace Supervisors/members, Process Change, etc.   

Exposure Monitoring   

- Process Change, Ventilation Design, Certified PPE List, etc.   
- Coordinate with stakeholders   
- Communicate Risk   

- Recommend exposure control options (interim/long-term)   
- Coordinate with stakeholders   
- Leadership risk decision 

 Bioenvironmental Engineering

 Public Health/Flight and Operational Medicine Clinic/Base
 Operational Medicine Clinic

 Workplace supervisors/members



Individual Longitudinal Exposure Record

- **Improvements to ILER**
 - **Make accessible to individuals**
 - **Early 2026 for CAC holders**
 - **Dec 2026 via login.gov for veterans and others**
 - **Made data more assessable: “Potential Hazards”**
 - **Added self-report options**
 - **Add unlisted in-garrison locations**
 - **Add unlisted deployment locations**
 - **Add potential toxic exposures**
 - **Add location-based potential hazards for missile bases, like for deployment locations**





Individual Longitudinal Exposure Record



ILER



[Redacted User Name]

My ILER

Contact Us

Account Details

Individual Exposure Summary Information

Individual Exposure Summary Information [Redacted]

Add to My ILER

EDIPI/DoD ID	Last Name	First Name	Middle Name	Date of Birth	Date of Death	Sex	Service	Service MOS Description
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[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
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Report Last Modified : 07/29/2025

Minimum 3 Characters

Search

Clear



> Personnel History [Count: 7] Information from DMDC

> Individual Deployment History [Count: 10] Information from DMDC, VA Registry Questionnaire and Other Sources

> Periodic Occupational and Environmental Monitoring Summary (POEMS) [Count: 3] Information from DOEHRs-IH and DMDC

> Potential Hazards [Count: 414] Information from DOEHRs-IH

> Industrial Hygiene [Count: 3] Information from DOEHRs-IH

> Health Assessments [Count: 4] Information from Armed Forces Health Surveillance Branch (AFHSB) and Hearing Assessment Data (DOEHRs-HC)

Report Last Modified:

* Audit data may not be available prior to October 1 2024

- 07/29/2025 : Potential Hazard
- 07/08/2025 : Personnel History
- 02/15/2025 : POEMS
- 01/28/2025 : Industrial Hygiene



Individual Longitudinal Exposure Record



ILER



[Redacted]

My ILER

Contact Us

Account Details

Individual Exposure Summary Information

Individual Exposure Summary Information: [Redacted]

Add to My ILER

EDIPI/DoD ID	Last Name	First Name	Middle Name	Date of Birth	Date of Death	Sex	Service	Service MOS Description
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[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
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[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
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Report Last Modified : 07/29/2025

> Personnel History [Count: 7]

> Individual Deployment History

> Periodic Occupational and Environmental

> Potential Hazards [Count: 4]

> Industrial Hygiene [Count: 1]

> Health Assessments [Count: 1]

Add to My ILER

Data submitted is visible to DoD/VA authorized officials. Sensitive or inappropriate information may not be included in your ILER summary.

- > Were you stationed at a location (non-deployment) that is not listed in your ILER? ☐ Yes ☒ No
- > Were you deployed to a location that is not listed in ILER? ☐ Yes ☒ No
- > Are you registered/participating in a Registry that is not listed in ILER? ☐ Yes ☒ No
- > Do you believe you experienced any toxic exposures that are not listed in your ILER? ☐ Yes ☒ No

Submit

Clear

Report Last Modified:

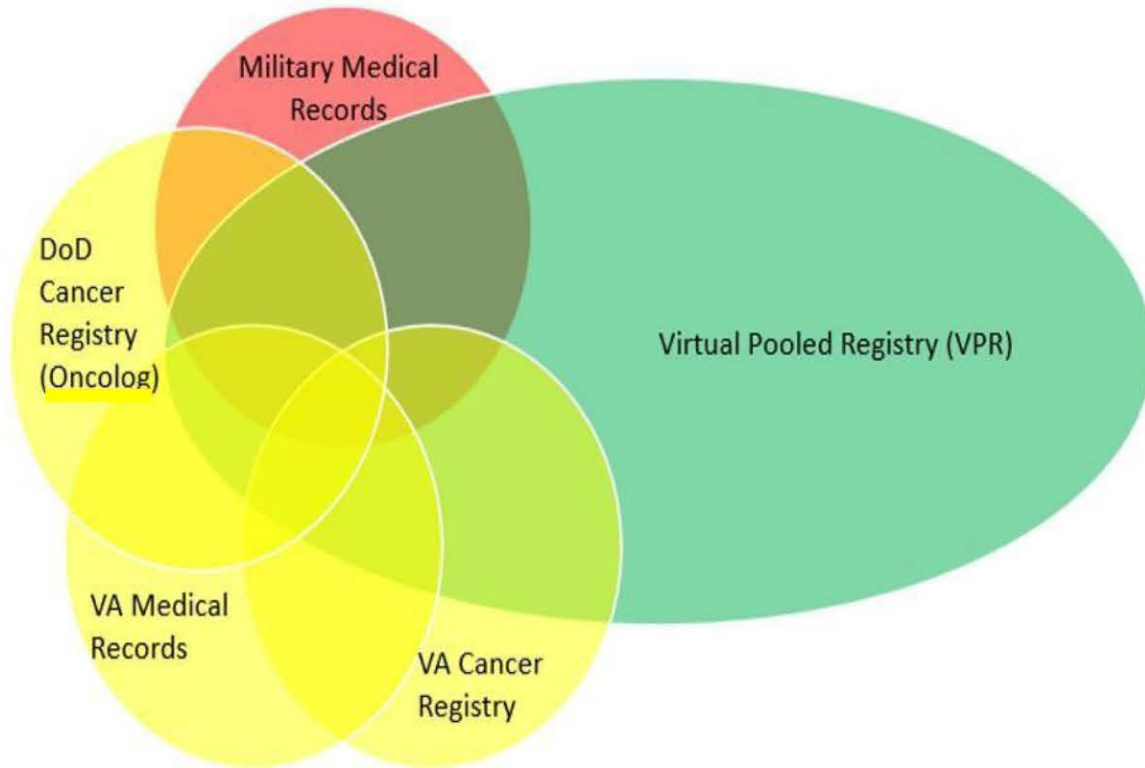
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- 01/28/2025 : Industrial Hygiene

The following patient data does not exist for this criteria:



Epidemiology Review – Where We've Been

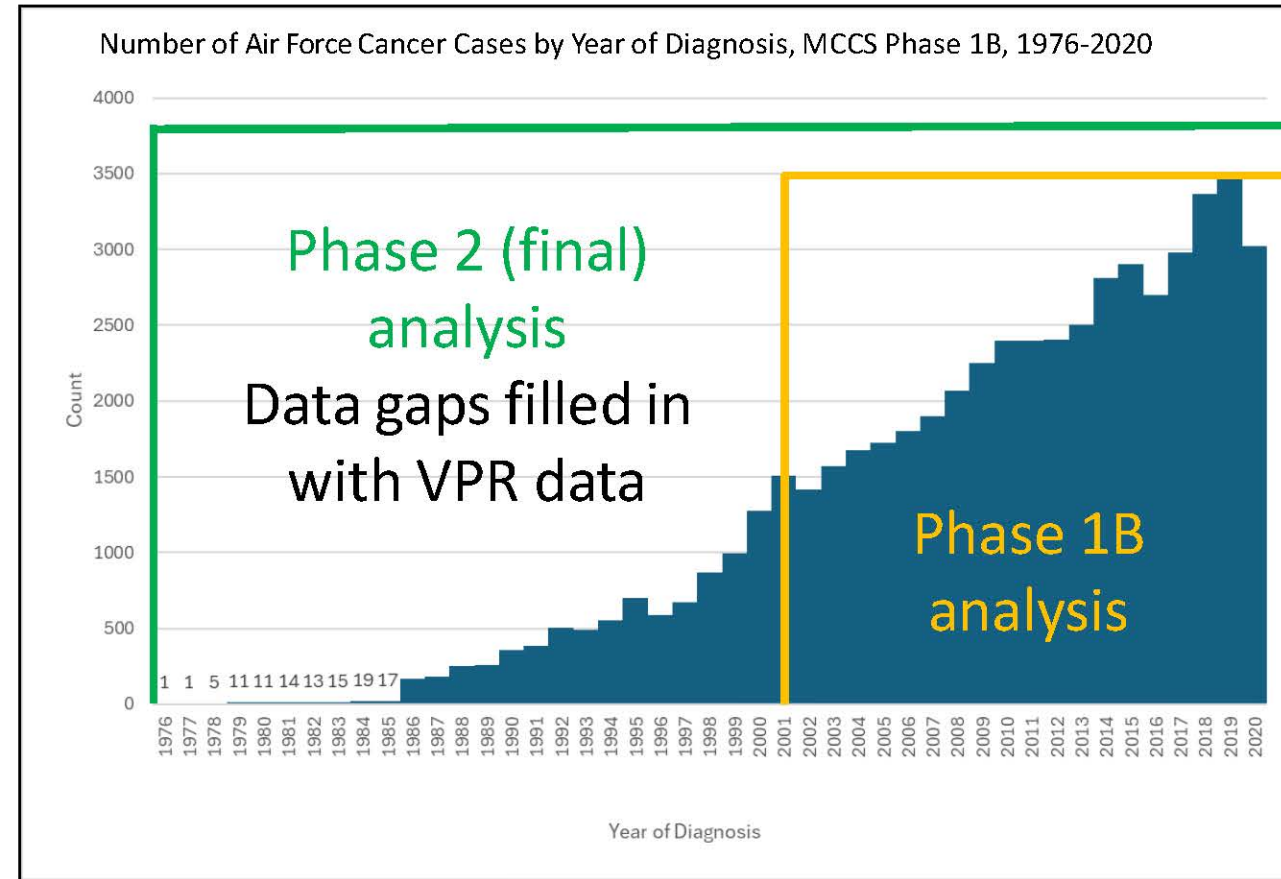


- There is no single source for cancer data, so the MCCS was designed with multiple overlapping data sources.
- Phase 1A captured 5,063 incident cancer cases.
- Phase 1B captured 55,224 incident cancer cases, nearly 11 times more cancer cases as Phase 1A.
- Estimated that Phase 2 would capture 2-3 times more cancer cases as Phase 1B.
- Cautioned against definitive conclusions until Phase 2 is complete and all data sources have been incorporated.



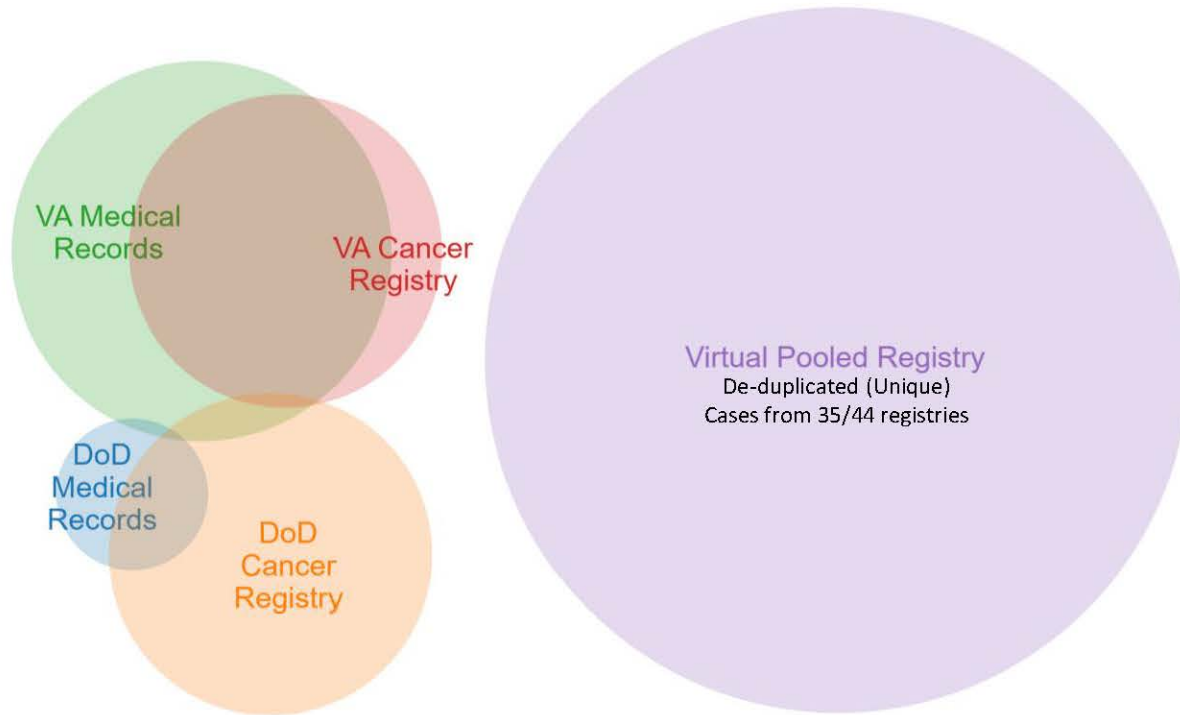
Epidemiology Review – Why Phase 2?

- For Phase 1B analysis, only the VA registry included data going back to 1976.
- The external analysis for Phase 1B was limited to just 2001-2020 (the first year that all datasets were available), to minimize the impact of these known data gaps.
- Phase 2 analysis will include data from the Virtual Pooled Registry that will fill some of the gaps in data and allow analysis of the entire study period for both the internal and the external comparisons.





Epidemiology Review – The Data



- The Virtual Pooled Registry (VPR) has incident cancer diagnoses from states and territories.
- Phase 2 incorporates VPR data into the previous 4 incident datasets.
- There are 44 registry participants with different documents, processes, and institutional review board requirements that must be executed before data are transmitted.
- Data from 35/44 registries has been received.
 - This includes all states with an active nuclear deterrent mission.
 - Continuing to work with states to receive data.
- Currently, the Phase 2 dataset has over 2 times as many cancer cases as Phase 1B.



Epidemiology Review – Way Ahead

- **Continue to receive data and run analyses**

- **Work with external partners to review and interpret analysis and write a report. Partners for Phase 2 include subject matter experts from:**
 - **Wright State University**
 - **University of Nebraska Medical Center**

- **The report will be published once USAFSAM goes through the process of independent review with external partners, and it is cleared through DAF channels**





Way Forward

- Institutional Processes to document and communicate potential hazards
- DOEHS/ILER Documentation
- Burning Classified Materials
- Complete Epidemiology Review
 - Phase 2 – continuing to receive data from civilian cancer registries through the Virtual Pooled Registry; projected completion Dec 2025
- Stakeholder Engagement
 - Continuing to pass along study updates to Veterans Affairs (VA)
 - VA Coordination - Military Environmental Exposure Sub-Council
 - Congressional updates
 - For more information on expanded VA coverage

The PACT Act And Your VA Benefits | Veterans Affairs

- Website for public information/questions: [Missile Community Cancer Study \(af.mil\)](https://af.mil/missilecommunitycancerstudy)

