



# ***Air Force Global Strike Command***

## **The MCCS Townhall Will Begin Soon**

### **MCCS Townhall Agenda**

- **General Thomas Bussiere  
Opening Comments**
- **AFGSC/SG & A4 (Colonel Greg  
Coleman, Mr. Matt Miller)**
- **USAFSAM (Colonel Tory  
Woodard) Update**
- **Questions & Answers**
- **Closing Comments**

- **Please turn your video off (save bandwidth)**
- **Please ensure your microphone is muted**
- **During Q&A, please use the 'raise hand' button  
and wait to be called**
- **When asking a questions, please introduce  
yourself before asking your question**
- **Members of news media are in attendance**
- **If you want to submit a question anonymously  
please text it to (318) 532-1214**
- **If we run out of time you can always submit  
questions via QR code, MCCS or AFGSC website**



# ***Air Force Global Strike Command***

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## **Missile Community Cancer Study (MCCS) Update**

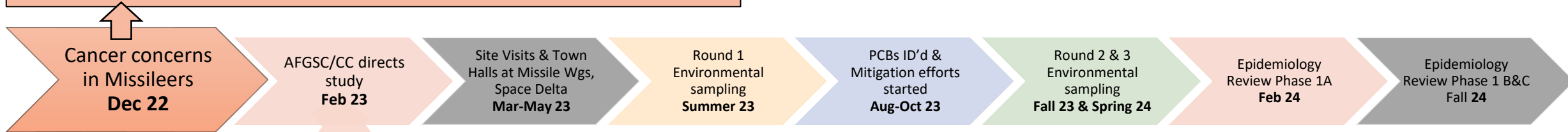


**Gen Thomas Bussiere  
AFGSC/CC  
June 2024**



# MCCS Summary

Space Force Guardian/former Missileer diagnosed with non-Hodgkins Lymphoma (NHL) discovered colleagues with cancer & started important dialog: *do Missileers have increased cancer risk?*



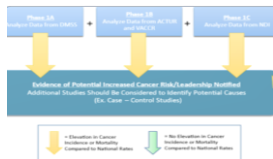
## Missile Community Cancer Study (MCCS)

Run by US Air Force School of Aerospace Medicine (USAFSAM)



### Epidemiology Review

Compare 14 common cancers in the general population to missile-related career fields using large government databases



- Data back to 1976
- Includes ~84K past/present missile community members

### Environmental Sampling

Collect 3 seasonal rounds to assess for any chemicals, contaminants, or hazards



**Safety of Airmen prioritized at all stages**

- Immediately instituted changes after site visits
  - ✓ Burning activities ceased, hazard signs updated
    - Deep cleans & living space upgrades scheduled
- ✓ MAFs with PCBs over EPA threshold closed until mitigated

**Environmental Sampling**

- ✓ Rounds 1 & 2 results, including Vandenberg SFB, posted on website
- Round 3 Sampling complete; results expected late summer
- LF Sampling scheduled Jul-Sep

**Epidemiology Review**

- ✓ Phase 1A – DoD Medical Data
- Phase 1B – currently analyzing DoD & VA medical/tumor registry data

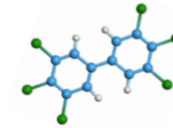
**Transparent engagement with stakeholders & leaders**

- White House PACT Act Representatives
- VA Military Environmental Exposure Sub-Council
- Veterans' Service Organizations



# Environmental Sampling Results

- 20th Air Force Missile Wings: all 45 Missile Alert Facilities (MAFs) tested in each of 3 seasonal rounds- over 8300 samples; Vandenberg SFB missile facilities also tested
  - **Rounds 1 & 2 : all air, water, & soil samples below acceptable regulatory levels for any chemicals or hazards**
    - Fertilizers, pesticides, volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs) among others
  - **Radon levels well below intervention threshold for all 4 bases**
  - Round 3 sampling complete; results expected in late summer



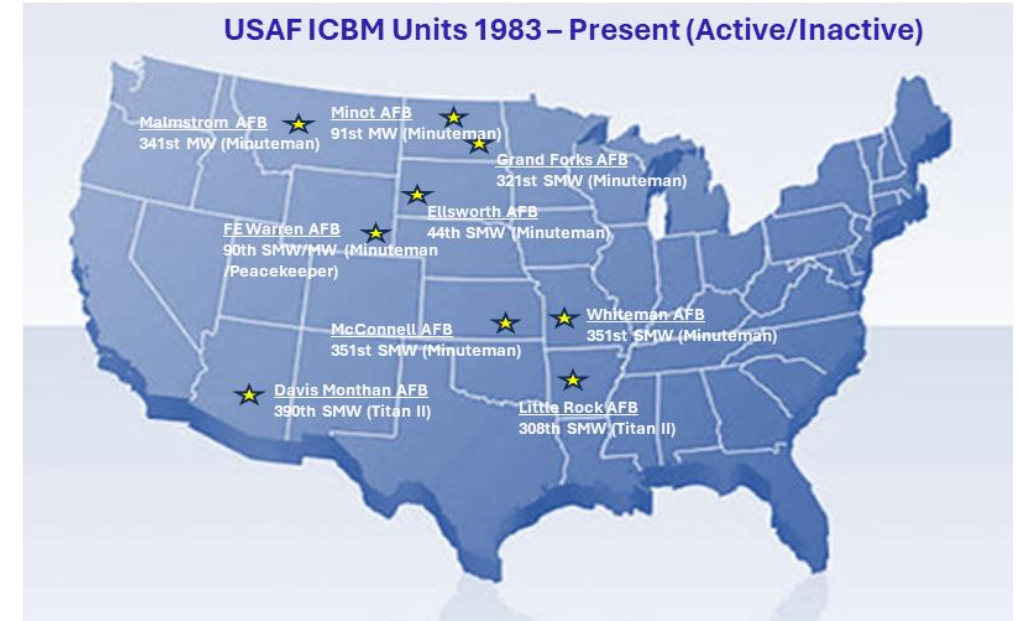
- **PCBs on surfaces are the only hazard discovered above regulatory levels**
  - Long-lasting chemicals widely used in electrical, heat transfer, and hydraulic equipment
    - Labeled as a potential carcinogen, US banned production in 1977
  - 3 MAFs (4 surface samples out of 1124 total at 4 bases) over EPA standard
    - Closed until PCBs mitigated to prevent exposure



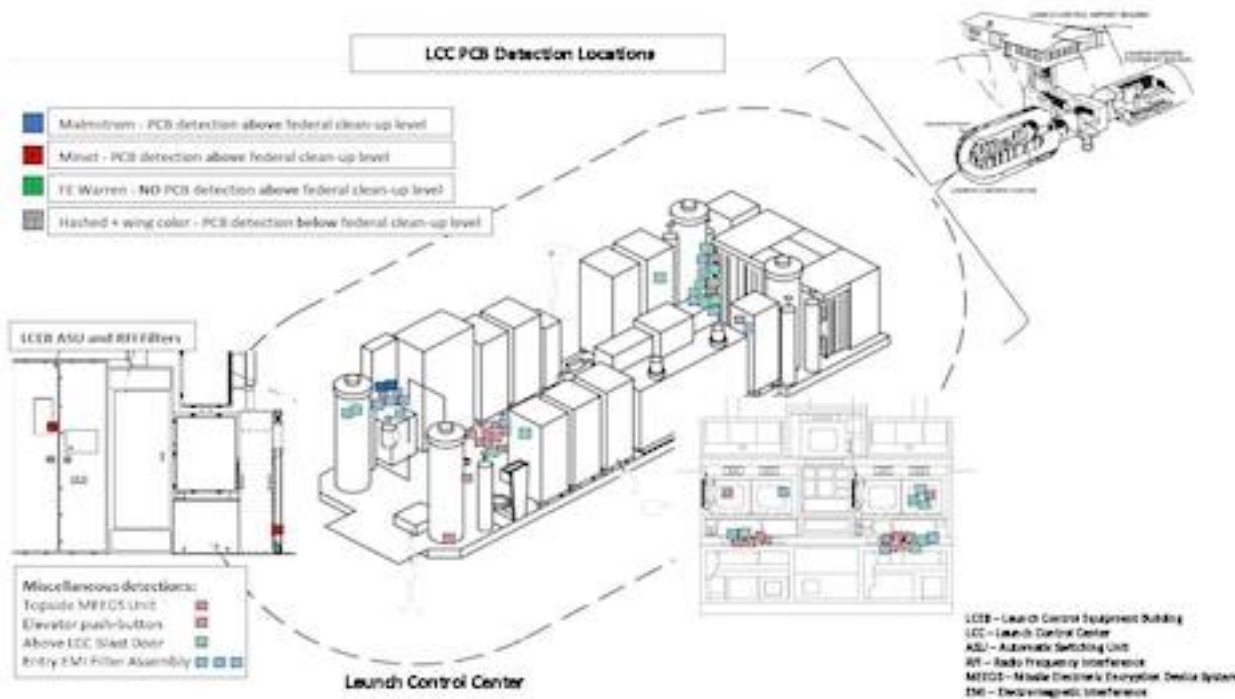
# Ongoing Efforts

## ■ PCB response protocols standardization complete

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



- MAF environmental upgrades & deep cleaning contracts in progress
- **Launch Facility (LF)** PCB sampling scheduled for Jul-Sep 2024





# Hazard Documentation

## ■ Missile-related career fields in Defense Occupational & Environmental Health Readiness System (DOEHRS)

- Most missile field jobs already included, e.g. Maintenance, Facility Mgrs, Security Forces
- Missileers not previously tracked; will be fully added by Dec 2024
- MCCS results (incl PCBs) being loaded in DOEHRS

## ■ Individual Longitudinal Exposure Record (ILER) compiles data through career & after

- Visible to DoD & VA medical personnel; individuals projected to have access in 2025
- Collects occupational & environmental health info from multiple sources, including DOEHRS
- Hazards listed by location, but not linked to individuals for CONUS; DHA working to connect data sets

Current Service in missile field

- Tracked in DOEHRS → ILER in 2025
- PCBs at MWs Memo

Prior missile service, still Active Duty

- History in DOEHRS
- PCBs at MWs Memo

Separated or Retired

- Separation Health Physical Exam(SHPE)
- PCBs at MWs Memo

## ■ Documentation to complement ILER improvements: “Polychlorinated biphenyls (PCBs) at Missile Wings” memo



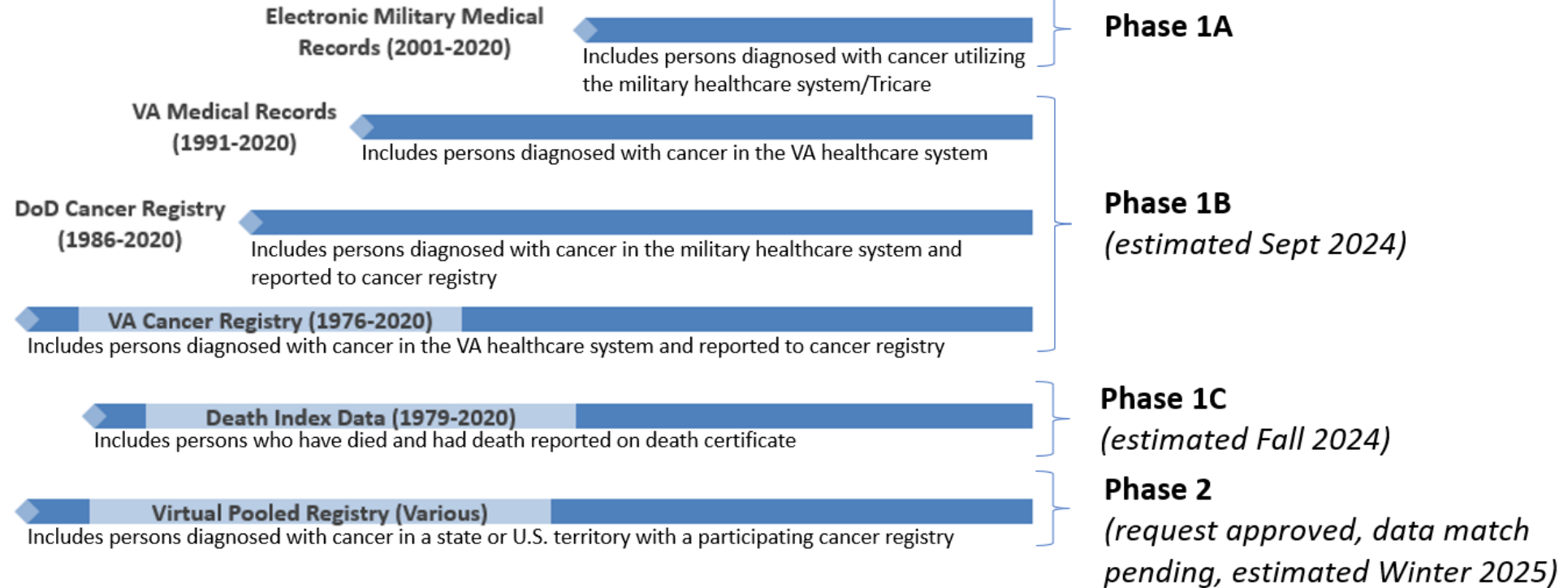
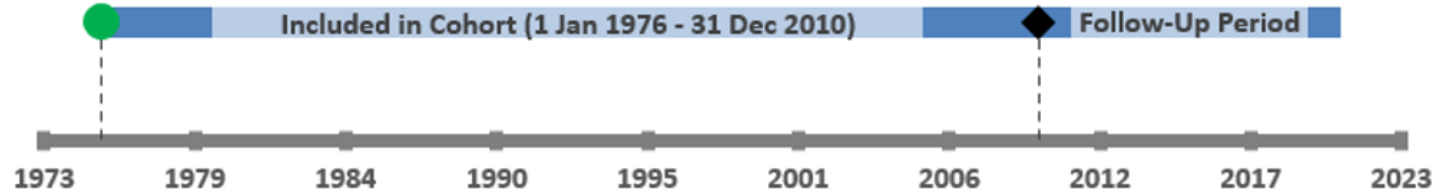
# Epidemiology Review

Core AFSCs Working in MAFs	
1D7	Cyber Defense Operations
2M0	Missile & Space Systems Maintenance/Facilities
2W2	Nuclear Weapons
3F1	Services
3P0	Security Forces
8S0	Missile Facility Manager
21M	Munitions/Missile Maintenance Officer
13N	Missileer
13S	Space & Missile Operations
31P	Security Forces Officer



Beginning of Cohort

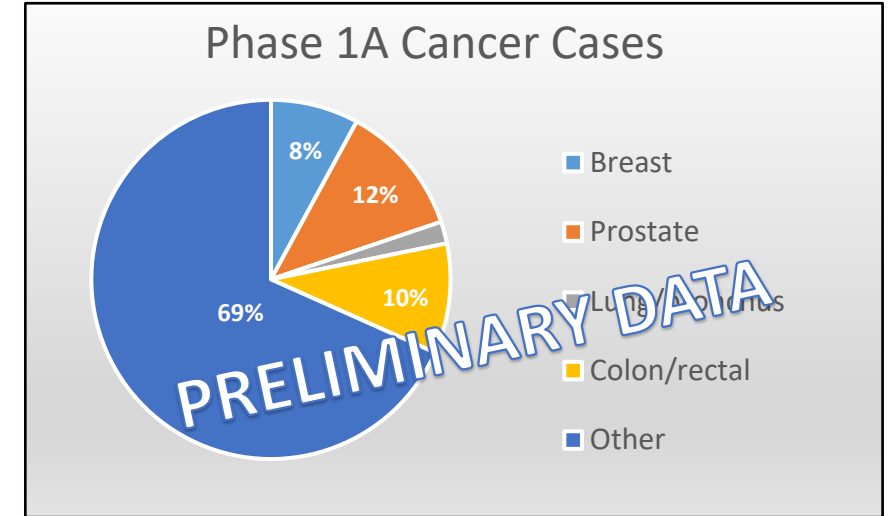
End of Cohort





# Phase 1A Results

- Comparison of MCCS Phase 1A cancer rates to the general population is **difficult at this time** due to incomplete case counts within this data set (Electronic Military Medical Records)
- With this limited data, breast and prostate cancer are trending towards increased incidence in the missile community, compared to the general population
  - Breast and prostate cancer are the two most common US cancers
  - This trend is similar to other findings in the military population based on recent independent research (Bytnar *et al.*, 2024)



Received: 17 November 2022 | Revised: 20 June 2023 | Accepted: 3 July 2023  
DOI: 10.1002/cncr.34978

**ORIGINAL ARTICLE**

**Cancer incidence in the US military: An updated analysis**

Julie A. Bytnar DrPH<sup>1,2</sup> | Katherine A. McGlynn PhD, MPH<sup>3</sup> |  
Matthew D. Nealeigh DO<sup>4</sup> | Craig D. Shriver MD<sup>1,4</sup> | Kangmin Zhu MD, PhD<sup>1,2,5</sup>

**Conclusion:** Higher rates of breast and prostate cancers in servicemembers 40–59 years of age than in the general population may result from greater cancer screening utilization or cumulative military exposures. Lower incidence of other cancers in servicemembers may be associated with better health status.

- There is **no increased incidence** of non-Hodgkin Lymphoma (NHL) in Phase 1A; the next phase will **continue to analyze** additional data





# Way Forward

- **Complete Environmental Sampling**
  - Round 3 report
  - Comprehensive health risk assessment incorporating data from all 3 rounds
  - LF PCB sampling
- **Continue Epidemiology Review** – Phase 1B data set analysis/publication
- **Stakeholder Engagement**
  - Monthly Congressional updates
  - Monthly VA Coordination; quarterly Military Environmental Exposure Sub-Council
  - White House / PACT Act Discussions
    - 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)

