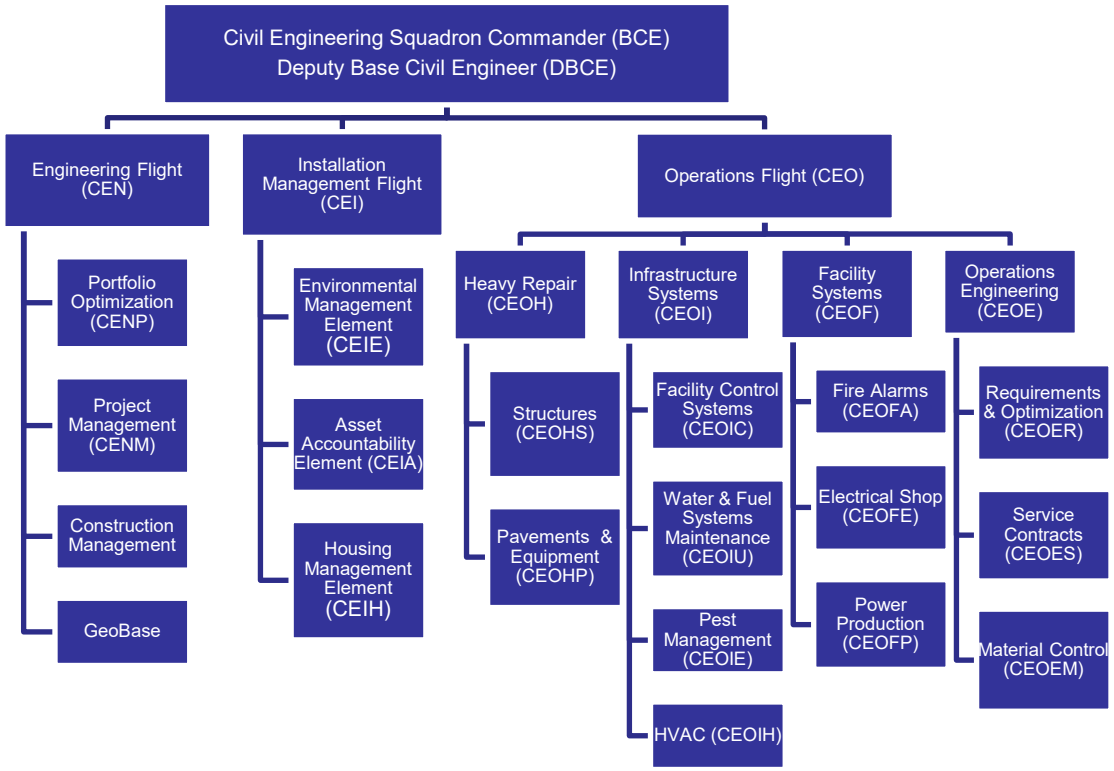
Civil Engineering Technical Services Center
"CETSC"

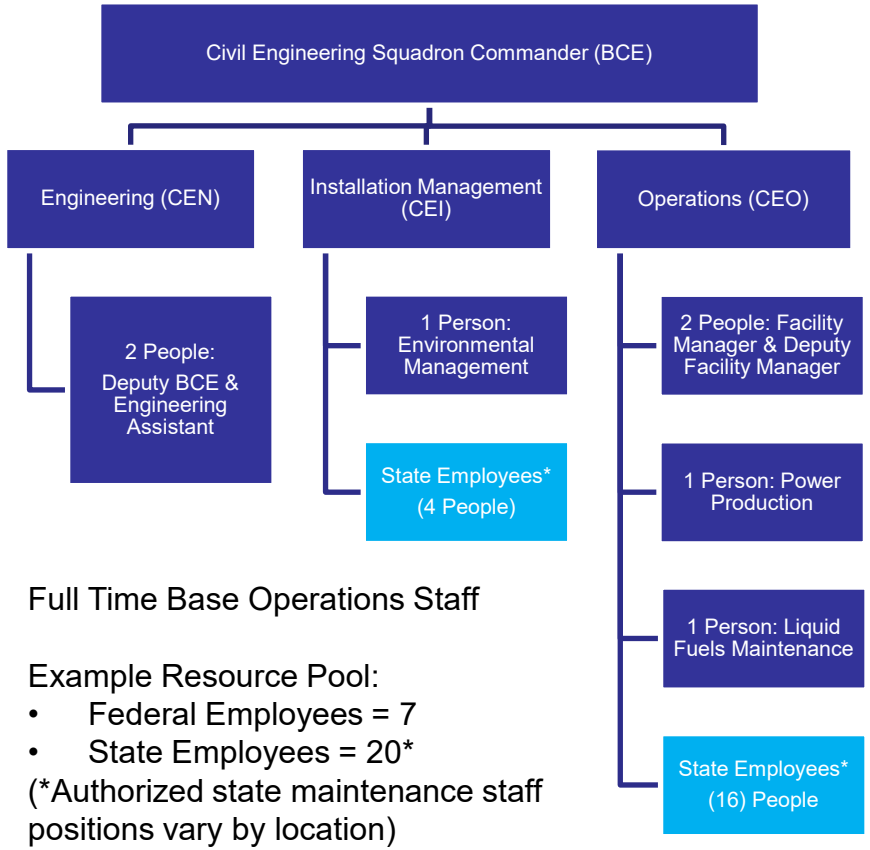
NGB A4OC

Lt Col Mike Hinrichsen

Chief, Civil Engineering Technical Services Center

Active Duty vs ANG CES





Full Time Base Operations Staff

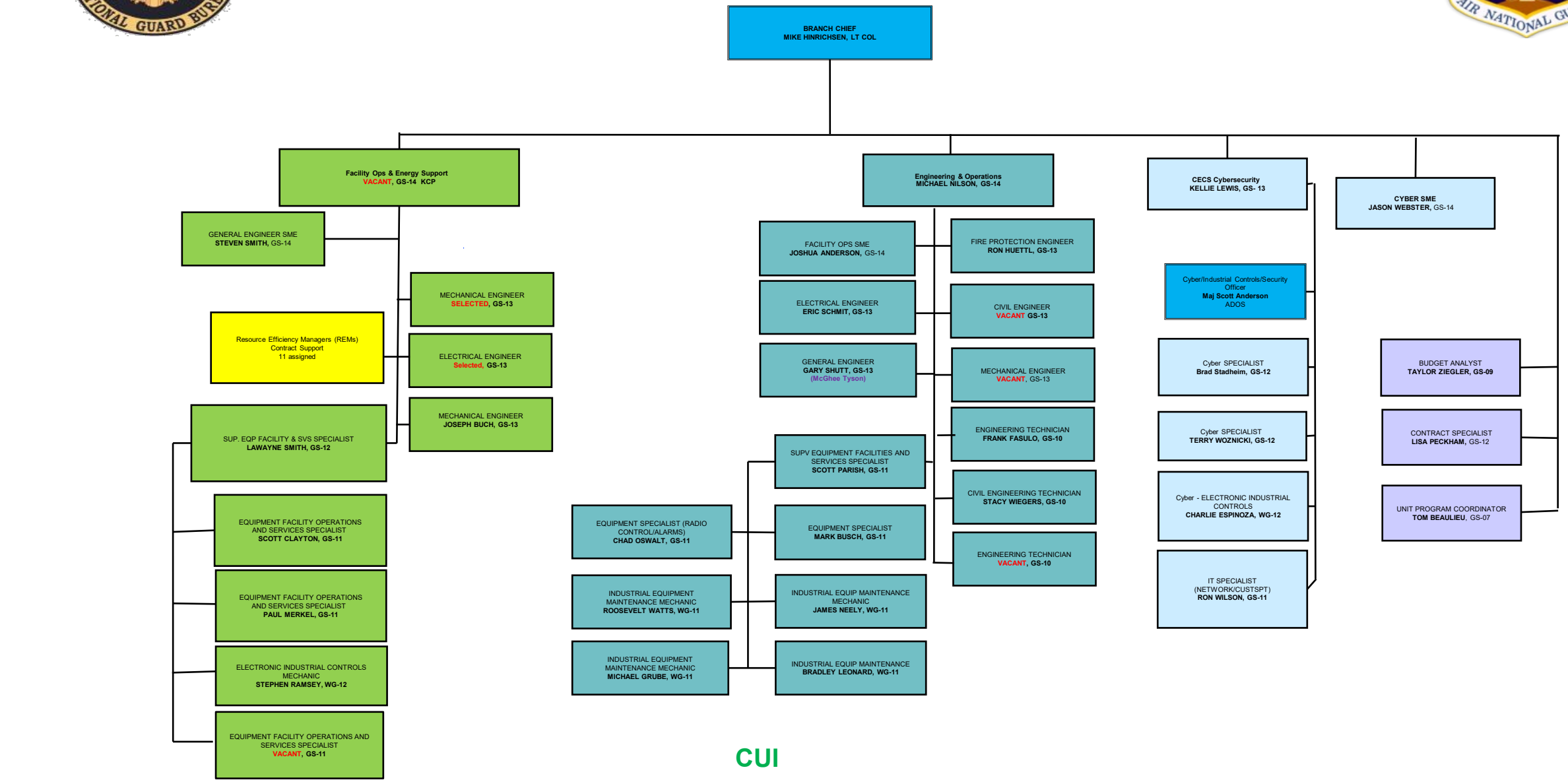
Example Resource Pool:

- Federal Employees = 7
- State Employees = 20*

(*Authorized state maintenance staff positions vary by location)

Much smaller resource pool than Active-Duty CE Squadron

Civil Engineering Technical Services Center (CETSC)



Current Challenges

- HEF/AFFF Phase-out for Hangars
- CE Control Systems Cybersecurity

HEF/AFFF Phase-out for Hangars

Hangar fire suppression HEF/AFFF to sprinkler transition program per SAF Sundown guidance

- 2026 – **30 Sep 26 – Phase 3 Complete - No Hangar Foam Suppression in use & sprinklers projects awarded**
- **31 Sep 26 – (NGB A4 Goal): FY26 Remaining AFFF Hangars projects awarded for phase 3**
- 2025 – 31 Sep 25 - Established Deadline: 18 FY25 AFFF Hangars projects awarded for phase 3
- 2024 – 31 Sep 24 - (NGB A4 Goal): 10 FY24 AFFF Hangars projects awarded for phase 3
- **31 Sep 24 – Phase 2 Complete - Remove all AFFF Via Central Contract (Goal)**
- 2023 – Jul 23 – Centralized remediation begins (Phase 2 effort)
- 31 Sep 23 - (NGB A4 Goal): 10 FY23 AFFF Hangars projects awarded for phase 3
- **1 Jan 23 – Phase 1 Complete - Lockout Tagout of Hangar Foam Suppression Systems - NDAA Compliant**
- Oct 22 – Begin Risk Assessments for installations with no sprinkler protection for post phase 1 operation
- 2022 – Oct 22 – AFCEC Finalizes MFRs, NGB Issue guidance to Field
- 27 Sep 22 – Provide AFCEC estimates for potential central contract (Phase 2 effort) & Prebrief installations (Phase 1-3)
- 27 Jun 22 – Begin Program/Prioritize AFFF/HEF Projects for Phase 3
- 7 Jul 2021 – SAF/IE – Completes “Assessment of Risks with Respect to Options for Replacing Fluorinated Aqueous Film Forming Foam (AFFF) Fire Suppression Systems in Department of Defense Facilities
- 2021 – 20 Dec 2019 - NDAA Mandated Discontinued Usage of AFFF in DOD by 31 Sep 24
- 2019

Completed event

Future event

As of: 26 OCT 22

Fire Suppression- Status

16 November 2021 Sundown Memo

Two-tier system;

Tier 1: Total loss of the facility/aircraft/assets mission failure at the DoD, DAF, CCMD, or Sub-Unified Command level (none in ANG)

Tier 2: all others

Tier 1 Authorized FSS: Ignitable Liquid Drainage Floor Assembly (ILDFA), Fluorine Free Foam (FFF), or High Expansion Foam System (HEFS)

Tier 2: No New Foam or Foam to End of Useful Life

- HEFS or LEFS

Revision

June 2022 Revised Sundown Memo

Approval Pending

Lock Out Tag Out all foam systems (1 Jan 2023)

Meets NDAA 2020 intent-no foam

Saves $$ over 2021 Sundown

Current sprinkler systems adequate

Three phase plan

Phase 1: Lock Out/Tag Out all foam

Phase 2: Remove/dispose all foam

Phase 3: Install sprinkler sys if none, replace AFFF lines

-Install IIIR

Current ANG Hangar Inventory

Hangars - 221

-23 Projects in BID or CNS

-10 Reworked by FY23 projects

- 7 Demo or repurpose

-42 AFFF hangars -1,029,980 SF of foam coverage

--1 Has wet pipe sprinkler; Moffett 662

--10 Foam/water wet systems (Sky Harbor & 9 AD)

--18 Foam/Water Preaction systems (2-C130J Carswell)

--13 Have no existing sprinkler system & require sprinkler system and IIIR flame detectors; Peoria B632 & B734, Louisville B510, Hector B217, Atlantic City B441, Reno B130, Toledo B124, Portland B250 & B255, Joe Foss B15 & 24, General Mitchell B208, Boise B148 (removal only).

--12 located on AF installations & 2 on Navy installations

--Approx. 50K gals of concentrate

--28 Installations; 22 ANG, 5 AF, 1 Navy

-135 HEF hangars

---2 have no sprinkler system or IIIR ; Barnes B27, Boise 155.

---25 have IIIR detectors & correct sprinkler systems

---108 need IIIR detectors installed, but correct sprinklers

---Approx. 63K gals of concentrate

---25 on AF installations & 2 on Navy installations

-1 Deluge Sprinkler system ; Scott AFB B5026

-3 Have no fire suppression; Selfridge Hangars 3 & 5, Atlantic City Hangar 246

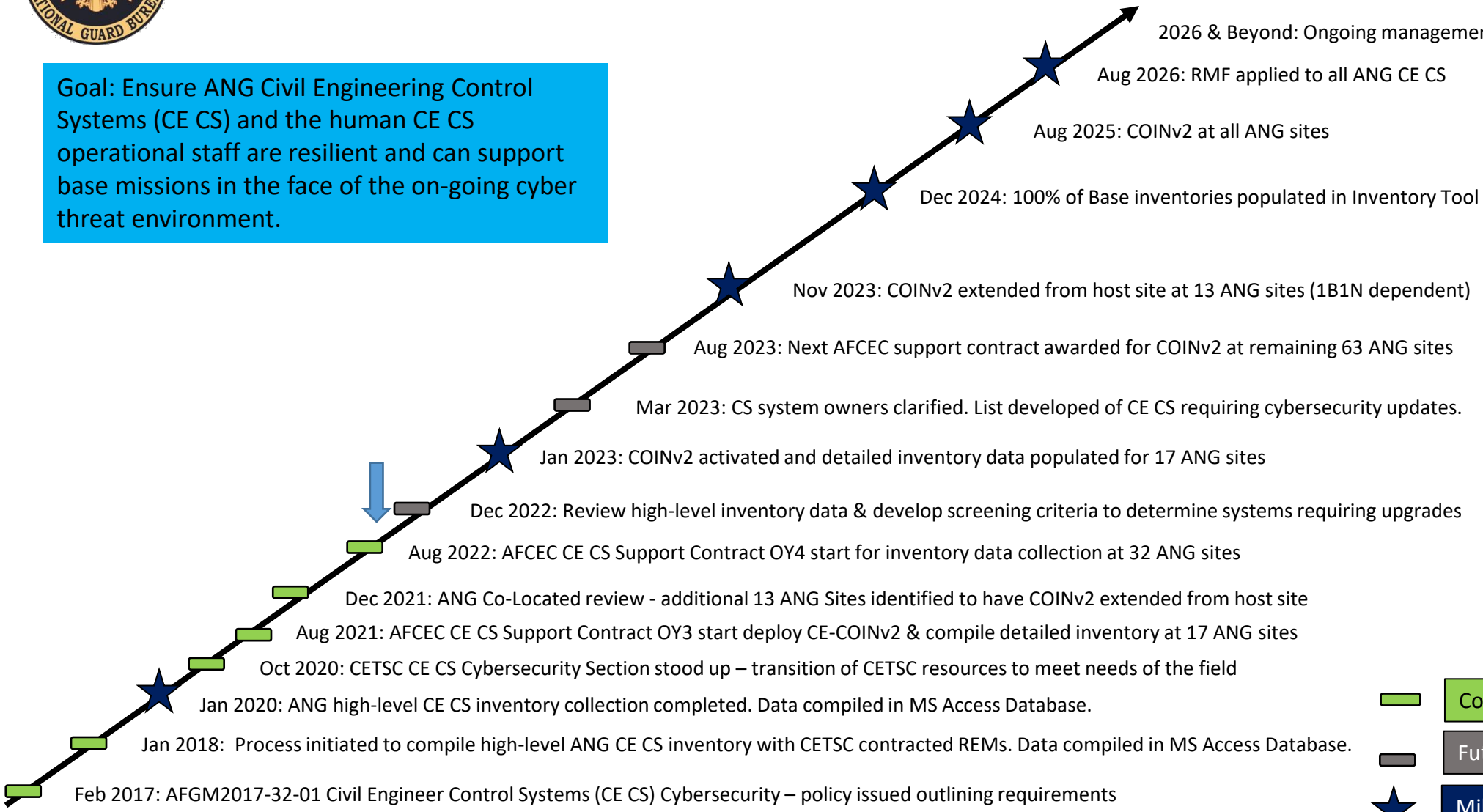
CE Control Systems Cybersecurity

Control systems are embedded in ANG installation infrastructure

- Civil Engineering Control Systems (CE CS) exist at every ANG installation.
  - Control systems essential to perform mission functions at ANG installations
  - Cyber attacks can target control systems & adversely impact mission execution
- ANG CE CS Cybersecurity Efforts
  - CE CS Inventory
    - What we have and where
  - Cyber Risk Management
    - Risk Management Framework (RMF)
  - Network Security
    - CE-COINv2 Deployment
  - Workforce Development
    - Centralized support to ANG CE Squadrons

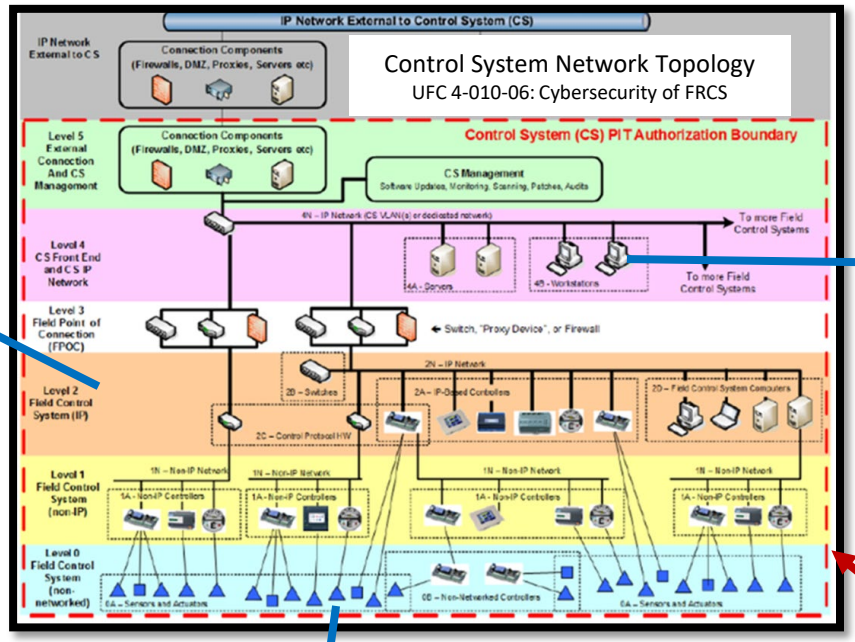
CE Control Systems Cybersecurity

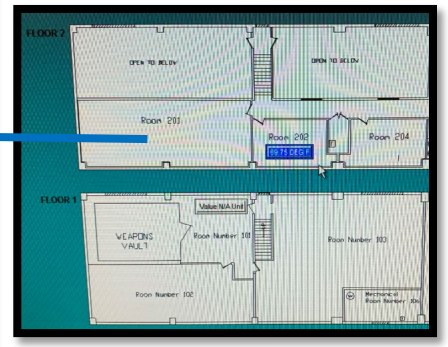
Goal: Ensure ANG Civil Engineering Control Systems (CE CS) and the human CE CS operational staff are resilient and can support base missions in the face of the on-going cyber threat environment.

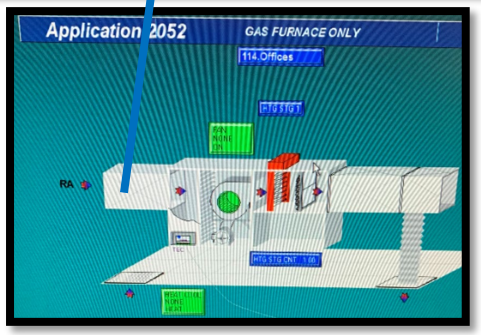


RMF Example

Existing HVAC Control System







Example:
Need lock on cabinet

Example:
Need network monitoring for unwanted outside connections

Questions

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Have a question and don't know who at CETSC to contact?

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