## Air Force Installation & Mission Support Center



## **PFAS Update**

## Region 10 Tier II Meeting 15 February 2023

**Cynthia Cash, GS-13 Emerging Contaminants Team** 







- Preliminary Assessment, Site Inspection, and Remedial Investigation Status
- PFAS Fingerprint and Background Study



### PA/SI Status



- Preliminary Assessment (PA) 100% Complete
  - DAF conducted PAs at 204 installations
- Due Diligence for Supplemental PFAS sources still in progress
- Site Inspection (SI) 100% Complete
  - DAF conducted SIs at 191 installations
  - For reporting purposes to OSD, 35 of the 41 Alaska installations roll up JBER
    - SI's completed at 6 of these 35 Alaska installations
    - Due Diligence Sampling for AFFF Sources pending contract award for Big Mountain, Campion, and Granite Mountain
    - SI's not required for 24 of these 35 Alaska installations





### RI Status



### DAF Remedial Investigations (RIs)

- RI under contract at 130 of 191 installations across the DAF (68%)
- For reporting purposes to OSD, 35 of the 41 Alaska installations roll up JBER
  - Six of these 35 installations require an RI; 5 are under contract with the 6<sup>th</sup> planned for RI execution by the Navy
  - Three of these 35 installations pending RI determination based on Due Diligence Sampling for AFFF sources
- RIs contracted based on DoD RRSE prioritization and funding availability
- Congressional increases over the past few years have allowed accelerated contract award for RI's; additional Congressional increase not provided for FY24





### PFAS Fingerprint and Background Study



- A Fingerprint and Background Study was awarded in September 2023 that includes the following installations:
  - Des Moines ANGB, Iowa
  - Dover AFB, Delaware
  - Eielson AFB, Alaska
  - Stewart ANGB, New York
  - Travis AFB, California
  - Wright Patterson AFB, Ohio
  - Tucson Area, including Morris ANG and AFP 44, Arizona



### **Project Objectives**



- Background Study: evaluate potential PFAS presences resulting from atmospheric deposition of PFAS
  - Following EPA Background study guidance for anthropogenic sources
- Fingerprint Study: identify potential on-base and off-base sources of PFAS from AFFF and other PFAS sources
  - Data to support RI/FS work
  - Intent is NOT to chase off-base potential sources to identify PRPs, but rather to identify different PFAS sources that may be co-mingled with on-base PFAS sources
  - Evaluate potential applicability of proposed fingerprint study results



## PFAS Fingerprint/Background Study Scope



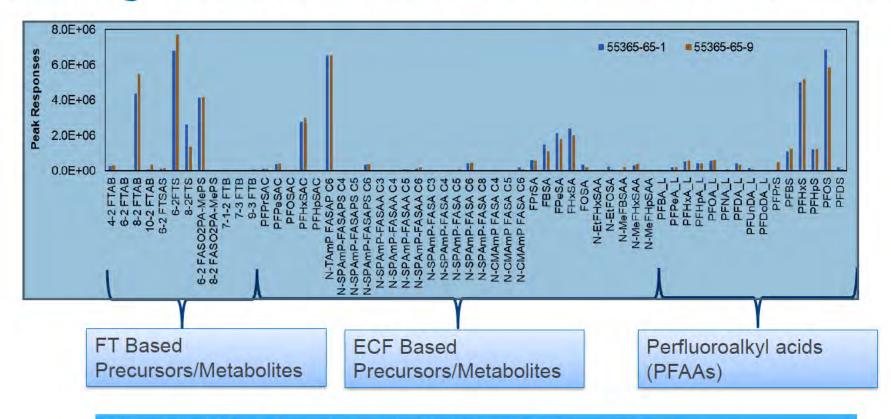
- Installation-specific kick off calls and on-site scoping meetings
- Planning documents (Combined WP/QAPP)
- Background Study
  - Sampling soil
  - Testing for 40 PFAS using EPA Method 1633 and for 520 PFAS compounds using PFAS Signature®
  - Develop anthropogenic background levels
- Fingerprint Study
  - Sampling soil, groundwater, and surface water
  - Testing for 40 PFAS using EPA Method 1633 and for 520 PFAS compounds using PFAS Signature®
  - Comparison against database of PFAS sources
- Installation-specific reports



### PFAS Signature® Output



### PFAS Signature® Provides More PFAS Information



More than 100 analytes detected with high resolution mass spec

Branched and linear isomers demonstrates mix of both FT and ECF chemistries

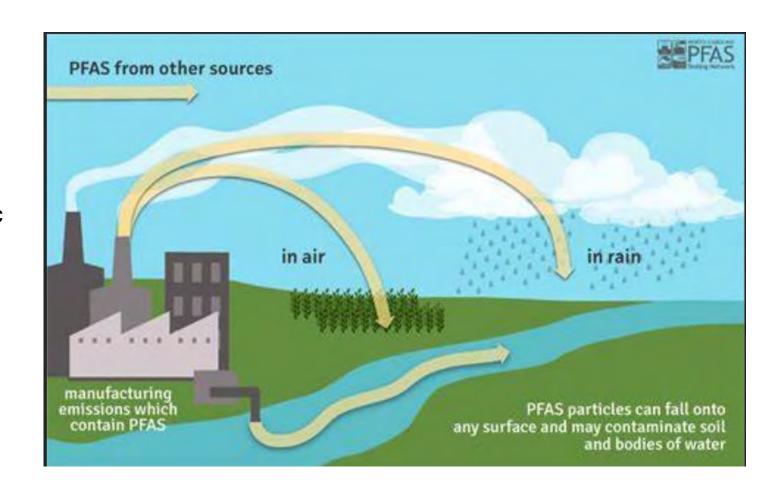


### Anthropogenic Background



### PFAS is a man-made chemical

- Does not naturally occur in the environment
- Presence based on anthropogenic sources associated with atmospheric deposition
- Focusing on soil background only during this project





## Database of Source Specific Signatures Fingerprint Study



#### AFFF Formulations

More than 35 sources of different AFFFs

### AFFF-Impacted Sites (multiple matrices)

- WWTP located within AFFF impacted site
- AFFF impacted biosolids applied soil
- AFFF used for emergency response

#### Waste Sector

- Landfill Leachates
- Municipal WWTP related samples and additives
- Paper Mill related WWTP samples
- Compost

#### Commercial Products

- More than 15 commercial products
- Metal Plating



## **Questions**









## Backup Slides PA/SI and RI Status for Region 10 Installations





Installation Name	State	DAF	PA/SI Status	RI Status
Anvil Mountain RRS	AK	Active	PA Complete, SI not required	RI Not Required
Barter Island	AK	Active	SI Not required based on Internal AF PA	RI Not Required
Bear Creek RRS	AK	Active	PA Complete, SI not required	RI Not Required
Beaver Creek RRS	AK	Active	PA Complete, SI not required	RI Not Required
Bethel RRS	AK	Active	PA Complete, SI not required	RI Not Required
Big Mountain RRS	AK	Active	PA Complete, Due Diligence Sampling Required	RI Pending Results of SI
Bullen Point	AK	Active	PA Complete, SI not required	RI Not Required
Campion AFS	AK	Active	PA Complete, Due Diligence Sampling Required	RI Pending Results of SI
Cape Lisburne LRRS	AK	Active	SI Not required based on Internal AF PA	RI Not Required
Cape Newenham LRRS	AK	Active	PA/SI Complete	RI Contracted Sep 2023
Cape Romanzof LRRS	AK	Active	PA/SI Complete	RI Contracted Sep 2023
Clear SFB	AK	Active	PA/SI Complete	RI Contracted July 2022

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UNCLASSIFIED Data as of 31 Dec 2022





Installation Name	State	DAF	PA/SI Status	RI Status
Cold Bay LRRS	AK	Active	PA Complete, SI not required	RI Not Required
Driftwood Bay RRS	AK	Active	PA Complete, SI not required	RI Not Required
Duncan Canal RRS	AK	Active	SI Not required based on Internal AF PA	RI Not Required
Eareckson AFS	AK	Active	PA/SI Complete	RI Contracted Sept 2020
Eielson AFB	AK	Active	PA/SI Complete	RI Contracted Aug 2020
Fort Yukon LRRS	AK	Active	PA/SI Complete	RI Contract Pending
Galena Forward Operating Location	AK	BRAC	PA/SI Complete	RI Contracted Sept 2021
Granite Mountain RRS	AK	Active	PA Complete, Due Diligence Sampling Required	RI Pending Results of SI
Indian Mountain Research	AK	Active	PA/SI Complete	RI Contracted Sep 2023
Joint Base Elmendorf-Richardson*	AK	Active	PA/SI Complete	RI Contracted Sept 2020
Kalakaket Creek RRS	AK	Active	PA Complete, SI not required	RI Not Required
King Salmon	AK	Active	PA/SI Complete	RI Contracted Sept 2020

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UNCLASSIFIED Data as of 31 Jan 2024





Installation Name	State	DAF	PA/SI Status	RI Status
Kotzebue LRRS	AK	Active	PA Complete, SI not required	RI Not Required
Kulis Air National Guard Base	AK	BRAC	PA/SI Complete	RI Contracted June 2021
Lake Louise	AK	Active	SI Not required based on Internal AF PA	RI Not Required
Murphy Dome	AK	Active	PA Complete, SI not required	RI Not Required
Naknek Recreational Camp 1&2	AK	Active	PA Complete, SI not required	RI Not Required
Nikolski RRS	AK	Active	PA Complete, SI not required	RI Not Required
Nome Tank Farm	AK	Active	SI Not required based on Internal AF PA	RI Not Required
North River RRS	AK	Active	PA Complete, SI not required	RI Not Required
Oliktok RRS	AK	Active	SI Not required based on Internal AF PA	RI Not Required
Point Barrow LRR	AK	Active	PA/SI Complete	RI Contract Pending by Navy
Point Lay	AK	Active	SI Not required based on Internal AF PA	RI Not Required
Point Lonely Dome	AK	Active	SI Not required based on Internal AF PA	RI Not Required

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Installation Name	State	DAF	PA/SI Status	RI Status
Port Heiden RRS	AK	Active	PA Complete, SI not required	RI Not Required
Sparrevohn AFS	AK	Active	PA/SI Complete	RI Contracted Sep 2023
Tatalina AFB	AK	Active	PA/SI Complete	RI Contracted Sep 2023
Tin City LRRS	AK	Active	SI Not required based on Internal AF PA	RI Not Required
Wainright	AK	Active	SI Not required based on Internal AF PA	RI Not Required
Boise	ID	ANG	PA/SI Complete	RI Contract Pending
Mountain Home AFB	ID	Active	PA/SI Complete	RI Contracted July 2020
Klamath Falls	OR	ANG	PA/SI Complete	RI Contract Pending
Portland International Airport	OR	ANG	PA/SI Complete	RI Contracted Sept 2020
Fairchild AFB	WA	Active	PA/SI Complete	RI Contracted July 2020
Four Lakes Air National Guard Station	WA	BRAC	PA Complete, SI Not Required	RI not required

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