**Links**

(WPO) Weather Program Office Homepage - <https://wpo.noaa.gov/>

(EPIC) Earth Prediction Innovation Center Homepage - <https://epic.noaa.gov/>

(WPO/EPIC) Main Page - <https://wpo.noaa.gov/epic/>

(UFS) Unified Forecast System Homepage - <https://ufs.epic.noaa.gov/>

EPIC Capabilities Workshop Homepage - <https://epic.noaa.gov/eventsposts/uifcw-2025/>

A UFS Collaboration Powered by EPIC

Monday, September 8, 2025 – Friday, September 12, 2025

Boulder, CO & Online

EIPC Sources Sought contract 08/2024 - <https://sam.gov/opp/2d981130a7094d23a232b73228cabbbf/view>

EPIC Contract Team - <https://epic.noaa.gov/about-epic/epic-contract-team/>

EPIC Strategic Plan (2021-2025) - <https://wpo.noaa.gov/wp-content/uploads/2022/09/Signed_EpicStrategicPlan2021-0903.pdf>

**Code Repos**

EPIC Code Base - <https://github.com/NOAA-EPIC>

UFS Code Base - <https://github.com/ufs-community/ufs-weather-model>

**Meeting with Jong Kim - 03/21/2025**

Product Owner – EPIC Code Management

* Jong (contractor) manages the code management team which consists of 8 people
  + There is a platform support team and a library support team
* Jong used to work at NCEP (I think he said for 3 years)
* On a daily basis they handle 6 machines in different locations
  + Follow up Questions: (may get this info on the next call with a RH SW Dev)
    - Where are the systems located?
    - What do the systems look like?
    - What is one of the systems compromised of?
      * Frontend?
      * Backend?
* NOAA system code is [systematic](https://en.wikipedia.org/wiki/Systematic_code#:~:text=In%20coding%20theory%2C%20a%20systematic,not%20contain%20the%20input%20symbols.)
* Jenkins is currently used for pipelines
* Developers do individual contributions to the code base
* It was mentioned that there are issues with profiling
  + Not sure what this means but should be able to find out at the next meeting
* Jong said that UFS is a single code base
* EPIC is currently on version 1 and plans to go to EPIC version 2 next year
  + NCEP manages the (GFS) Global Forecast System which is on version 17
    - <https://www.ncei.noaa.gov/products/weather-climate-models/global-forecast>
      * Dig in here with Dave/IBM/Doug to see if there are any additional opps
* Find out more about the 14 forecast systems (there could be more opps)
* Jong wants to package the “System” that includes
  + Library Updates
  + Profiling
  + Containerization
  + Workflow
* There is currently a AWS presence - <https://epic.noaa.gov/getting-started/>
  + Could be a ROSA play..

**Caleb - MDR Notes from call on Mar 21, 2025with Jong Kim**

* **Jong Kim**
  + Leads the EFS (Epic Forecasting System?) system
  + 6 years with NOAA, working on EPICS
  + Previously worked with NASA
  + Heads core management tasks for EFS

**Current Operations:**

* Manages 6 machines daily on the EPICS side
* Large, complex tech stack:
  + System library
  + Containers
  + Pipeline configuration (using Jenkins)
* Scope is broad and inefficient due to:
  + Many different system types
  + Heavy reliance on manual processes
  + Significant individual contributions required

**Challenges:**

* Early-stage processes, not fully optimized
* Lack of automation:
  + Example: Takes a month to configure MPI (Message Passing Interface)
* Struggles with initiating improvements ("making the first step")
* Jong is not fully satisfied with the current setup

**Potential Solutions:**

* Consolidating systems (e.g., looping in library, containers, and pipeline config) would be highly valuable
* Interest in automation to reduce manual work
* Containerization approaches being explored internally

**Opportunity:**

* Jong is open to a demo of a solution
* Workflow systems are a key pain point
* Willing to champion a solution internally