National Aeronautics and Space Administration

Earth System Science Pathfinder Program Office Executive Summary

Fall 2023

(Please click on ***hyperlinks*** for more information)

2023 ESSP Program Forum

The 4th ESSP Program Forum was held August 22-23 at NASA's Langley Research Center. We were thrilled that there was representation from each of the 22 projects in the ESSP portfolio. Other attendees and presenters included personnel from ESSP and NASA centers, as well as ESD and SMD. Sessions covered topics such as "NASA's Open Science Initiative" and "Lessons Learned". Many thanks to all attendees for your contributions to the productive discussions - you made this forum exceptional and successful!

2023 ESSP Forum attendees received a tour of NASA's new 777 for airborne research at the Langley .

Recent project and investigation news and highlights:

- Take a look at how Earth Venture data (**TEMPO** and **GLIMR**) are planned to be used in enabling equity and environmental justice in ***this article*** on NASA's Earth Data website.

- **CYGNSS** data is being investigated as a potential method to identify surfactants on the ocean currents that often accompany the transport of microplastics. Check out this report from ***Scientific American*** on this new area of investigation, which is based on ***a recent study published in Nature***. The CYGNSS team has been working with NOAA to compare CYGNSS satellite data with water samples obtained from NOAA research ships to confirm the correlation between surfactants and microplastics.

- Congratulations to the **TEMPO** team on being named one of ***Time's best inventions of 2023***!! **TEMPO** was launched on April 7 and recently released ***first images***. The project was also covered in an ***NBC News segment*** on November 16.

- The **INCUS** project, led by Sue van den Heever at Colorado State University, was ***recently highlighted*** by Denver local news. In addition to being led out of Colorado State University, the project is subcontracting with Denver area vendors for the spacecraft (Blue Canyon Technologies) and the Radar deployable antenna and Integrated Payload Structure (Tendeg).

- A peer reviewed publication that presents **EMIT's** first results in characterizing methane and carbon dioxide point sources has been released in ***Science Advances***. While this capability was not part of EMIT's primary mission, the instrument has shown unexpected proficiency in spotting emission sources. A companion press release from NASA is ***here***.