

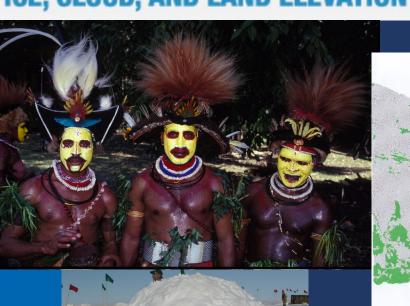
NASA Carth

Thomas Wagner, PhD

thomas.wagner@nasa.gov
Associate Director, Earth Action
Earth Science Division
NASA Science Mission Directorate









From tiny awards to big projects





My guiding principle

A deep and abiding respect for our investigators and their ideas.

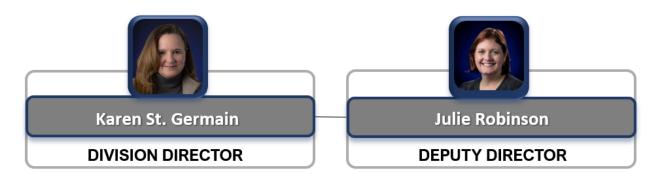


75% of our formal interactions with PIs are giving bad news and every day at work we get told our budgets may be cut.

Talking to PIs is the best part of our jobs.



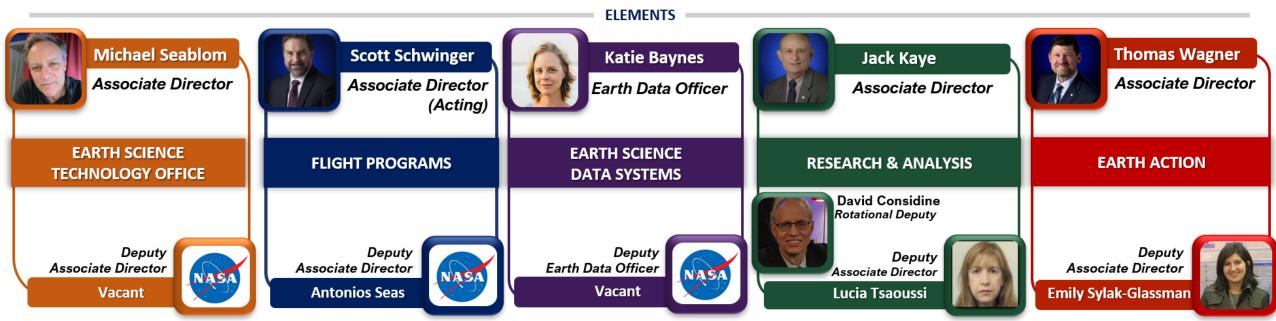
NASA HQ Earth Science Division Leadership











NASA earth **ACTION**



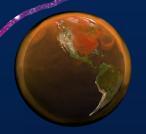
Agriculture



Climate Resilience & Community Action



Capacity Building



Greenhouse **Gas Center**



Satellite Needs Working Group

Empowering communities across the world to find solutions to the challenges they face every day.



Disasters



Ecological Conservation



Energy and Infrastructure



Commercial **SmallSat Data Acquisition**



Earth Information Center



Health and **Air Quality**



Mission Engagement



Water Resources



Wildland Fires





Greenhouse Gas Center

Multi-agency effort to compile greenhouse gas data from observations and models into a collection of trusted greenhouse gas emissions and flux products.





Earth Information Center

Provide actionable, easy-to-use data and information about earth's changing systems to the public.





Satellite Needs Working Group

Partners with Federal agencies to identify highpriority sustained and unmet needs for satellite Earth observations.

https://www.earthdata.nasa.gov/esds/impact/snwg/solutions



Commercial SmallSat Data Acquisition

Identify, evaluate, and acquire commercial small-satellite (SmallSat) data that support NASA's Earth science research & application goals.



What's new about Earth Action (EA)?

- EA motto: Scale, Build Bridges, User-centered
- All Applied Sciences staff migrated to Earth Action section
- New PMs and PSs added to cover new programs
- Focus on synergies—eg commercial data, modeling outputs, etc.
- Increasing mission focus with PALs and activities for more missions
- Connecting across ESD; cross-cutting appointments and other approaches
- Potentially new funding opportunities
- Amplified focus on meeting societal challenges and co-development, that are the hallmarks of Applied Sciences

Earth Science to Action Strategy



Virtuous Cycle

 User needs inform next iteration of programs, missions and initiatives

Public Understanding & Exchange

- Put more scientific understanding into public sphere
- Deliver applied science to users
- · Participate in multi-way info exchange
- Use input to inform subsequent work

Solutions & Societal Value

- Offer models, scientific findings and info through Open-Source Science principles
- Support climate services
- Provide science applications and tools to inform decisions

Earth System Science & Applied Research

- Grow scientific understanding of Earth's systems
- Develop predictive modeling for science applications and tools to mitigate, adapt and respond to climate change

Foundational Knowledge, Technology, Missions & Data

- · Technology innovation
- Earth observations missions
- · Data collected from space, air and ground

What does this mean to you? 3 basic models of project support

Individual Projects

Many grants active at any time; done in partnership with user organizations



ROSES: Research Opportunities in Space and Earth Sciences

New language in ROSES A.1 for ES2A: Cross layers of pyramid

Consortiums

For key issues that have broad impact and require rapid and agile response we sponsor multi-sector consortia



NASA Harvest Agriculture Consortium



NASA Acres U.S. Agriculture Consortium



Western Water Applications Office



CONVEI



Problem-Solving Teams

Interact with managers on the ground to collaborate on topics of emerging and urgent needs



Health and Air Quality Applied Sciences Team

What do we need from you?

Your ideas, especially:

- On how to connect with users and incorporate their needs into our future work (the arrow).
- Techniques for developing and sustaining partnerships.

Your concerns, with recognition that we are:

- Trying something new, it won't all go well.
- Expecting and encouraging feedback.

Your patience and flexibility in:

- Taking a fresh look at approaches to achieve ES2A objectives.
- Understanding that we face fiscal headwinds right now.

Recognize that we're one NASA; we all have to work together to address society's challenges.



