



White House Office of Science and Technology Policy

Request for Information: National Plan for Civil Earth Observations

Document Number: 2023-25798

Thank you for the opportunity to respond to the public draft of the National Plan for Civil Earth Observations. The Aerospace Industries Association (AIA) represents over 320 aerospace manufacturers and suppliers and more than 2 million U.S. workers across the aerospace and defense industry. Our members include multi-decade Earth Observations Enterprise partners to the U.S. government's space science and remote sensing communities deeply committed to maintaining and enhancing the long-term Earth observation record.

AIA submits the following comments for your consideration.

- 1. Definitions of Roles and Responsibilities.** The National Plan should clarify the roles and responsibilities of Earth Observations Enterprise (EOE) members or define a framework for establishing roles and responsibilities that address how the members will work together to achieve the goals outlined in the Plan. The Plan should also include more concise definitions around ownership and sustainment. For example, offering a distinction in NOAA's responsibilities to provide operational solutions that require ongoing sustainment and data continuity (such as weather), whereas NASA is responsible for new science instrument technologies and missions. There is already a pragmatic distinction that NOAA's mission is to provide operational weather data and NASA's mission is to conduct science. Clearly defining these roles and responsibilities would be beneficial in maximizing the impact of the Plan's three stated goals and would support EOE members in their mission and business planning.
- 2. Budget Planning and Support.** The National Plan accurately addresses the global need for Earth observations and the broad scope of value those observations bring to many essential sectors. However, the Plan does not capture the equal necessity for the supporting budget that Earth observation missions and technology developments require. If a science mission is deemed to have sufficient operational value that should be sustained by an Agency, it must also come with the budget to expand that Agency's portfolio. The National Plan should provide concise directions for Earth Observation planning and activities required to help inform budget and investment decisions. This guidance would benefit federal agency planning and industry

in supporting budget needs, mission continuity, and optimizing internal investments.

3. **Reference the Decadal Survey.** The Plan understandably relies on the U.S. Group on Earth Observations (USGEO) as a coordinating body for the federal government but does not mention the Decadal Survey (Thriving on a Changing Planet) that guides federal investments in space instruments and identifies critical Earth observation gaps. The Plan should address the Decadal Survey as it contributes to each of its three goals. Referencing the Decadal Survey is especially pertinent in Objective 1.1, where the Plan specifies that there should be an investment in research and technology including prioritizing improved greenhouse gas (GHG) observations. Additionally, this reference is applicable in Goal 3, where human health and safety applications may need new observational capabilities and technologies.

4. **Data as a Service (DaaS) Considerations.** The National Plan appropriately identifies the importance of Earth observation data being available, trustworthy, and transparent. These priorities are inherent in government-based systems and the Plan should emphasize that before using DaaS systems in any area the government must ensure DaaS systems will maintain these priorities. DaaS systems should not be used where they cannot meet certain quality assessments, including calibration capability and cross sensor consistency to ensure proper initial calibration and subsequent trending of the instruments to ensure alignment with existing instruments and the long-term record. Other considerations before using DaaS systems in any area should be the ability to meet recognized standards for metadata to ensure a suitable degree of traceability back to the original sources and quality of observations. DaaS needs to consider accessibility of data, especially as data like that from GHG and carbon stores are increasingly used in monitoring, reporting, and verification as a basis for carbon markets and policy regulations. DaaS systems must also include data storage requirements to ensure long-term Climate Data Record quality. Finally, environmental sensing requires protection from other user interference, particularly in the microwave frequencies. Government-owned systems receive assistance from the National Telecommunications and Information Administration (NTIA) which can advocate for spectrum protection, especially for spectrum that is designated Government-only or shared with non-Government users, particularly for frequencies used for environmental sensing. This challenge will need to be addressed for DaaS systems. The National Plan should recognize these important considerations in weighing the use of any DaaS systems in lieu of government systems.

Thank you for the opportunity to comment and we welcome the opportunity to discuss our comments at your convenience.