To: ASP email distribution
From: Earth Science Division, Airborne Science Program Director
Subject: FY23 Airborne Science Flight Program

The Airborne Science Program (ASP) under the Earth Science Division (ESD) of the Science Mission Directorate (SMD) announces the annual call for Fiscal Year 2023 Flight Requests. This call applies to Earth Science activities anticipated to occur between October 2022 and September 2023 that will utilize ASP supported aircraft, ESD facility instruments, or any ESD funded activities/missions using aircraft. Please see Appendix A for the SOFRS flight request requirements decision tree.

Detailed and continually updated aircraft and instrument information can be found on the Airborne Science Program website. This site is a centralized portal for all program components, including the Science Operations Flight Request System (SOFRS), platforms, instrument capabilities, schedules, and points of contact. For a comprehensive list of ESD program managers, please visit the Earth Science Division Website or the Program Officers list. In addition, investigators in the pre-proposal planning stage may contact Matt Fladeland (650) 604-3325 for help with platform selection, engineering questions or integration concerns. Additional investigator support information can be found in the SOFRS Principal Investigator support tab.

PLEASE NOTE: All airborne missions utilizing NASA instruments, NASA personnel, NASA aircraft or funded through a NASA contract must be in compliance with the NASA Aircraft Operations Management Manual (NPR 7900.3D).

User Fees

All airborne assets (aircraft and instruments) are subject to user fees. These fees reflect the usage cost and are assessed by the organization operating the asset. This is true for both NASA and non-NASA assets. A Flight Request (FR), through SOFRS, is required for scheduling usage of an ASP supported aircraft, and/or a facility instrument. See Appendix A for a list of these assets and a SOFRS flight request requirements decision tree.

Flight Requests should be associated with a NASA program, grant, proposal, or, if funded from a non-NASA source, deemed to be directly related to a NASA area of interest. If no NASA investigation is associated with the request, it will be handled as a Reimbursable Mission and may be required to include a justification for the use of NASA facilities and subject to unsubsidized flight hour rates and additional fees.

Once a Flight Request is approved and scheduled, the user fees must be forwarded to the performing organization(s). In most cases, user fees must be available to the performing center(s) before mission activities, such as integration, can occur. For SMD-funded researchers using NASA assets, the fees will normally be withheld from the investigator's budget by the sponsor and sent directly to the NASA aircraft or instrument organization. For researchers using non-NASA assets, the fee payment process will

vary and the Airborne Science business managers together with the aircraft managers at each center are prepared to assist the investigator with the financial procedures.

Integration and Mission Peculiar Costs

In addition to user fees, integration costs (aircraft- and instrument-dependent) and Mission Peculiar Costs (MPCs) may be applied to the FR budget by the aircraft manager. Detailed information regarding integration costs and MPCs, including those for satellite communication (SATCOM) and the National Suborbital Research Center (NSRC) are located in Appendix B. All relevant aircraft MPCs should be discussed with the aircraft manager.

ROSES, EOS and Multi-Aircraft Missions

Anyone with a requirement for an Airborne Science Program (ASP) supported aircraft, and/or facility instrument is required to submit a Flight Request. This includes ESD funded investigators with approved or pending proposals from Research Opportunities in Space and Earth Sciences (ROSES) announcements. The Flight Request is the method to acquire a cost estimate for inclusion in proposals but is not a substitute for a proposal. FR and user fee information for Earth Observing System (EOS) Investigators can be found in Appendix C. If the campaign is planned to take place during multiple fiscal years (FY), a flight request or flight request place holder needs to be submitted for each FY.

Please note, for investigators proposing to participate in large experiments, such as the ROSES Call 2018: FIREx-AQ (Fire Influence on Regional and Global Environmental Experiment- Air Quality), the Flight Request(s) will be submitted for the mission by the Project Manager or Project Scientist.

ASP Supported and Other NASA Aircraft

The Airborne Science Program continues to support an inventory of unique highly modified “science- ready” platforms, as well as to coordinate access to other NASA aircraft. See Appendix D for the list of current flight hour costs and visit the ASP platforms page for a detailed list of available aircraft.

Facility Instruments

Several remote sensing systems are identified as NASA facility instruments, in part because they support multiple science disciplines and a variety of NASA science objectives. They are supported by managers in the ESD Research and Analysis program, and/or the EOS Project Science Office, and are made available to the wider NASA science community via SOFRS. When using a facility instrument, an operations support team may or may not be required to deploy with the instrument. User Fees for the instrument team and data processing costs may be required in addition to aircraft Mission Peculiar Costs (MPC) and flight hour costs. Approval for use of a facility

instrument is granted by the sponsoring science Program Manager/Scientist. Appendix E shows available facility instruments with Point of Contact (POC) info.

Piggyback Instruments

The addition of piggyback instruments are at the discretion of the mission's PI. The piggyback instruments should have no impact on the primary mission objectives, flight plans and flight hours.

By agreeing to fly a piggyback instrument, the mission's PI is commited to providing and meeting the needs of the instrument requirements (such as cabin space, power requirements, operator needs etc.) on a non-interference basis.

Science Operations Flight Request System (SOFRS)

All flight requests for U.S. locations should be submitted at least 3 months before the desired collection dates, except in cases of rapid response missions to support hazard mapping. Flight Requests for non-U.S locations must be submitted at least 6 months prior to desired data collection dates. However, advanced notice of proposed missions should be provided to aircraft managers as soon as possible in order to provide sufficient time for flight planning, engineering, and integration efforts, which are driven by location and total aircraft payload size.

IMPORTANT: Investigators wishing to use any of the facility instruments listed in Appendix E are requested to submit FY23 Flight Requests before September 30, 2022, to allow the ASP Program Managers, instrument teams and NASA Headquarters managers to plan appropriately for the upcoming flight season. Any Flight Requests received after September 30, 2022 may still be approved, but will be accommodated on a "best effort" basis for FY23 or may be scheduled the following year.

SOFRS is managed by the Earth Science Project Office (ESPO) at Ames Research Center. If you did not receive this message directly and would like to be included in further distributions, please send an email to SOFRS_curators@airbornescience.nasa.gov. If you have any questions regarding SOFRS, please see the ASP Flight Request Procedures document and/or contact: Vidal Salazar (650) 604- 5313.

Please submit your completed FY23 Flight Requests as soon in your planning process as possible.

Sincerely,

Bruce Tagg
Director, Airborne Science Program Earth Science Division
Science Mission Directorate