



June 15, 2020

TO: ASP email distribution  
FROM: Earth Science Division, Airborne Science Program Director  
SUBJECT: FY21 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 2021 Flight Requests. This call applies to Earth Science activities anticipated to occur between October 2020 and September 2021 that will utilize ASP supported aircraft, ESD facility instruments, ASP science support assets or any ESD funded activities/missions using aircraft. Please see [Appendix A](#) for the SOFRS requirement 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 information. 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 missions utilizing NASA instruments, NASA personnel, NASA aircraft or are funded through a 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, a facility instrument, and/or an ASP science support asset. See [Appendix A](#) for a list of these assets and a SOFRS requirement 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 justification for 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 on integration costs and MPCs, including those for satellite communication (SATCOM), the Airborne Sensor Facility (ASF) 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, facility instrument, and/or science support asset **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, a flight request or place holder needs to be submitted for each FY.

Please note, for investigators proposing to participate in large, multi-aircraft experiments, such as the ROSES Call 2018: FIREx-AQ (Fire Influence on Regional and Global Environmental Experiment- Air Quality), a single Flight Request 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 coordinate access to other NASA aircraft. See [Appendix D](#) for the list of current flight hour costs and visit this [website](#) 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.

All flight requests for US 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-US 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 AVIRIS, eMAS, MASTER and UAVSAR are requested to submit FY21 Flight Requests before September 30, 2020, 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, 2020 may still be approved but will be accommodated on a “best effort” basis for FY21 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](mailto: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 FY21 Flight Requests as soon in your planning process as possible.

Sincerely,

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