



Revision: October 01, 2019

TO: ASP email distribution
FROM: Earth Science Division, Airborne Science Program Director
SUBJECT: FY20 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 2020 Flight Requests. This call applies to Earth Science activities anticipated to occur between October 2019 and September 2020 that will utilize ASP supported aircraft, ESD facility instruments, ASP science support assets or any ESD funded activities/missions using aircraft (click [here to access Appendix A](#) for definitions and a 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. 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 section](#).

PLEASE NOTE: All missions utilizing NASA instruments, personnel, aircraft or funds 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. 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 possibly subject to additional fees.

For FRs from requesters outside of the Earth Science Division to be considered for the subsidized rate, please include the name and contact information of a NASA sponsor (NASA HQ Science Concurrence) who has agreed to deem the research to be directly related to a NASA Earth science area of interest as well as the name and contact information of the Funding Source.

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), is 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 on 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.

Federal and Commercial Aircraft

NASA instrumentation may fly on non-NASA Federal aircraft as well as academic and commercial platforms for which agreements for access by SMD investigators are in place or have recently been approved by NASA Aviation Management as airworthy and safe to operate. In accordance with NASA Procedural Requirement 7900.3 Aircraft Operations Management Manual, for all commercial aircraft contracts and agreements, NASA must ensure that the aircraft operator holds and maintains an FAA 14 CFR 121 Certificate or 14 CFR 135 Certificate. Also, if an aircraft is registered internationally and the operations are being conducted internationally, whether the aircraft is modified or flown in a certified condition, an airworthiness and onsite flight readiness and safety review must be conducted. For non-NASA/commercial aircraft, proposals need to include costs associated with NASA safety reviews, which may include travel to offsite facilities. Investigators are responsible for contacting the relevant parties to determine if the platform meets the requirements of the proposed scientific investigation.

NASA does not endorse any commercial product or organization. Before any actual data collection flights utilizing NASA personnel, property or funds, all vendors are subject to airworthiness/flight safety reviews in accordance with this [NASA Aviation Safety Policy for Non-NASA Aircraft](#). **In addition to ensuring the proper 7900.3 airworthiness review is conducted, all Earth Science airborne activities shall ensure compliance with NASA Procedural Requirements for Mishap and Close Call Reporting, Investigating, and Recordkeeping (NPR 8621.1 current edition).** Per paragraph 2.4.2 of NPR 8621.1, all aircraft operations mishaps and close calls designated high-visibility, Type A, or Type B shall be reported to the ASP Director and the cognizant Program Scientist (PS) within 24 hours. The ASP Director and PS will then notify ESD leadership within 24 hours of their notification.

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. For more information, please visit [NASA's Earth Science Division website](#).

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.

IMPORTANT: AVIRIS, eMAS, MASTER and UAVSAR investigators are requested to submit FY20 Flight Requests before September 30, 2019, 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, 2019 may still be approved but will be accommodated on a “best effort” basis for FY20 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 FY20 Flight Requests as soon in your planning process as possible.

Sincerely,

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