



Science Mission Directorate
Suborbital Science Program
Flight Request Management Plan

OES Flight Request Management Plan

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SMD Flight Request Management Plan

1.0 Purpose

1.1 Background and Description

The Suborbital Science Program in the Research Division of NASA's Science Mission Directorate provides airborne observational assets for obtaining Earth Science data. These assets include a suite of sustained, ongoing platforms and sensors on which investigators can obtain earth science data and which complement space-based observing systems. A portion of the available airborne assets are directly managed by NASA. The NASA assets have unique technical and operational capabilities which are not commercially available or viable. However, the program also facilitates access to other platforms or sensors for which data may be more viably obtained. This includes commercial sources, as well as unique assets that are available at academic institutions or with other federal agencies. In addition, the program is also constantly assessing new, evolving technologies to demonstrate their applicability for Earth science data acquisition and to evolve the core capability over time.

The Suborbital Science Program maintains the aircraft and sensor assets to support the Science Mission Directorate (SMD) and science objectives, so funded SMD investigators have priority access to the facilities. Excess capacity is available to approved investigators of other Directorates within NASA and interagency partners. Other organizations, seeking the unique capabilities of the SMD facilities, can obtain these assets on a full-cost reimbursable basis.

Allocation of these assets for scientific research is the responsibility of the Suborbital Science Program Manager. Requests for flight hours on these assets are submitted, evaluated, and approved by the program. The approved flight requests, in turn, form the plan and schedule for the assets. This plan describes the process, procedures, and policies for managing the Suborbital Science flight requests.

1.2 Objectives

The objective of this management plan is to document the process, procedures, and policies for managing the Suborbital Science flight requests, and to specifically describe the submittal, review, and approval process for the flight requests.

1.3 Scope

This document describes flight request (FR) submittal, review, and approval for assets managed and allocated by the Science Suborbital Science Program. This includes assets directly managed by the program, as well as assets obtained through cooperative agreements with other organizations and

funded to support SMD objectives. The document describes tasks associated with flight request management, how flight requests are submitted, reviewed, and approved (including FR workflow), specific guidelines and policies regarding FR sponsorship, funding, tracking, etc., and the roles and responsibilities of the various organizations involved in turning a science requirement into a flight or mission. This FR process is also to be used to track flights for which NASA instruments or personnel are flown on non-NASA aircraft, or if a flight is supported by NASA funding.

2.0 Flight Request Management Tasks

The following table (Table 1) delineates and summarizes the flight request tasks which are performed on an annual basis and are covered under the scope of this document.

TASK	DESCRIPTION
Develop and Issue Call Letter	Annual call letter to science community soliciting FRs.
Manage Flight Requests	
Logging	Receive and assign log number
Initial Review	Check completeness of required data
Analysis	<ul style="list-style-type: none"> - Check feasibility for: A/C compatibility, instrument integration, and location/mission issues. - Review flight hour estimates (incl # flt lines/trajectories) Check transit times & test flights; estimate ROM MPCs - Group similar flights; groupings by location, timeframe, science objectives, payload compatibility, data requirements, etc. Identify potential “piggybacks” - Conduct schedule analysis – generate transit requests - Resolve open issues/concerns with PI/submitter - Provide disposition recommendation to Program Manager - After approval: Detailed mission planning (payload integration requirements, etc.); estimate detailed MPCs
Coordination	Between Program Managers, Principal Investigators, and Aircraft Managers
Approval	Summary packages to PMs for concurrence; recommend approval to SSPM.
Tracking	A/C managers and organizations provide flight hour and cost info for database updates & performance tracking. Appendix A delineates the required Flight Request tracking data.
Funds Management	Track receipt of funds for approved requests. Carry-over/return funds for unflown hours.
Maintain Integrated Schedules	Annual, five-year, and cooperative plans
Computer/Sys Administration	Web site/forms, database management, hardware/software admin
Maintain PI Contact List	Distribution list of Principal Investigators in airborne science community.
Reporting	Monthly summary report to Suborbital Science Program Manager; quarterly reports to Discipline Program Managers; annual flight summary report
Provide Management Support	Other tasking per Suborbital Science Program Manager direction

Table 1: Flight Request Task Summary

3.0 Roles & Responsibilities

The following paragraphs delineate the roles and responsibilities of the cognizant organizations for the management of Suborbital Science flight requests.

3.1 Discipline Program Managers (DPMs)

Responsible Center: NASA Headquarters

- Reviews and approves overall scientific merit and justification of proposed FRs.
 - Coordination of scientific content with appropriate Project Scientists and Principal Investigators (PIs).
- Provides sponsorship and financial support to approved FRs.

3.2 Suborbital Science Program Manager (SSPM)

Responsible Center: NASA Headquarters

- Overall management authority and responsibility of FR management.
- Approval authority of FRs and allocation of suborbital science assets.
- Establishes overall FR policies and approves procedures and management plan.
- Develops and issues annual FR call letter.

3.3 Earth Science Project Office (ESPO)

Responsible Center: Ames Research Center

- Manages FR process, including FR receipt, review, approval, and reporting.
- Establishes FR management procedures, requirements, and plans.
- Approves reimbursable flight requests, piggy-backs, and other flight requests by delegation from the Suborbital Science Program Manager.
- Coordination and liaison between NASA Headquarters program managers and science mission/aircraft managers.
 - Tracks and reports FR status to SSPM and DPMs, and coordinates open issues with DPMs.
 - Verifies FR approval/support and funding allocation.
 - Provides disposition recommendations to Program Managers.
- Manages overall suborbital aircraft planning schedules (five year).
- Supports Suborbital Science Program Manager requirements and management objectives as required.
- Manages Flight Request system, including FR receipt, logging, and reporting.
 - Tracks requested, approved, and accrued flight hours for all aircraft*.
- Assists and coordinates with ESPO for FR review and assessment between DPMs, PIs and mission/aircraft managers.
- Maintains Suborbital Science Online Flight Request Management System (OFRMS) database, including associated web sites, database management & administration, etc.

3.5 Mission/Aircraft* Managers

Responsible Centers: All NASA centers with aircraft available for conducting Earth Science missions, including Ames Research Center, Dryden Flight Research Center, Wallops Flight Facility, Stennis Space Center, Glenn Research Center, and Johnson Space Center.

- Performs feasibility and technical assessment of FRs, including flight hour and mission cost estimates.
- Coordinates with Project Scientists and PIs for instrument and flight planning requirements.
- Performs mission flight planning, development, and implementation of approved FRs.
- Maintains aircraft flight schedules (annual).
- Reports actual/accrued/completed flight hours to AFRES database.

* Note: Current aircraft include DC-8, ER-2, P-3, WB-57 (SMD related), Learjet 23 and 25, S-3, Twin Otter, B-200, UAVs, Aerosonde, Proteus, and Sky Research J-31 and Caravan aircraft.

4.0 Process & Procedures

4.1 General Description

The only way to be formally approved and scheduled for a flight on an SMD suborbital asset is to submit a Flight Request. See Appendix B for example FR form. Flight Requests may be submitted at any time; however, NASA issues an annual call for Flight Requests (Appendix C) approximately six months before the beginning of the fiscal year, usually between March and April, with submittals normally due in June. Requests are reviewed prior to the beginning of the 1st quarter of the fiscal year and the facilities are then scheduled for that year. Flight requests submitted outside of the call letter process are filled only if there is schedule availability.

The Suborbital Science Program funds and maintains the basic asset capability, and only the marginal cost of the actual missions is charged to approved SMD investigators. User fees for required flight hours cost are based on the sponsor and the funding source. Mission peculiar costs (MPCs) may also apply. These fees are paid by the investigator's funding sponsor or directly from the investigator's grant funds. A funding sponsor is defined as the manager of the Research Program under which the grant or contract is issued. An approved SMD investigator is someone with a NASA/SMD grant or contract, normally awarded competitively in response to an SMD research announcement. Other approved investigators may include those sponsored by other Mission Directorates within NASA or by our interagency partners whose research is shown to be aligned with SMD's own research objectives.

In addition, airborne science assets are available on a reimbursable basis. Missions that do not benefit NASA or SMD research objectives must pay for the facilities under a full-cost reimbursable basis. Missions for these non-SMD investigators will be approved on a case-by-case basis. In addition, it must be demonstrated that the facilities provide a unique capability that is not available through the commercial remote sensing industry (see Section 4.4.1).

In general, the first to reserve a platform through an FR usually has the priority in the event of a schedule conflict. If appropriate, alternate flight dates or platforms may be suggested by the suborbital science program to obtain the required science data. Other requirements, such as unique seasonal measurements or platform capabilities, will also be considered.

For long-term planning, the program also maintains a 5-year plan for each platform. The 5-year plan is used for long-term asset planning and to resolve schedule conflicts. Although a time slot on a particular platform may be 'reserved' for time-critical missions, such a reservation does not actually allocate the platform to a particular user or mission. Reservations are placed on the 5-year plan only with the approval of the Suborbital Science Program Manager.

4.2 Submitting a Flight Request

Flight request forms are available on the internet and can be submitted online to the NASA ARC Suborbital Sciences website (<http://cloud1.arc.nasa.gov/suborbital.html>). Certain fields in the request form are required, so that the request may be adequately reviewed and dispositioned. These include: Investigation title, PI name and contact info, sponsor name, science/mission description, flight schedule and time, geographic location, instrument(s), and desired platforms. If known, the number of required flight hours should be provided. For reimbursable requests, a justification for asset use should be provided (see Section 4.1). Flight requests can be submitted in paper form or as electronic documents (i.e., MS Word). However, on-line submittals are strongly encouraged.

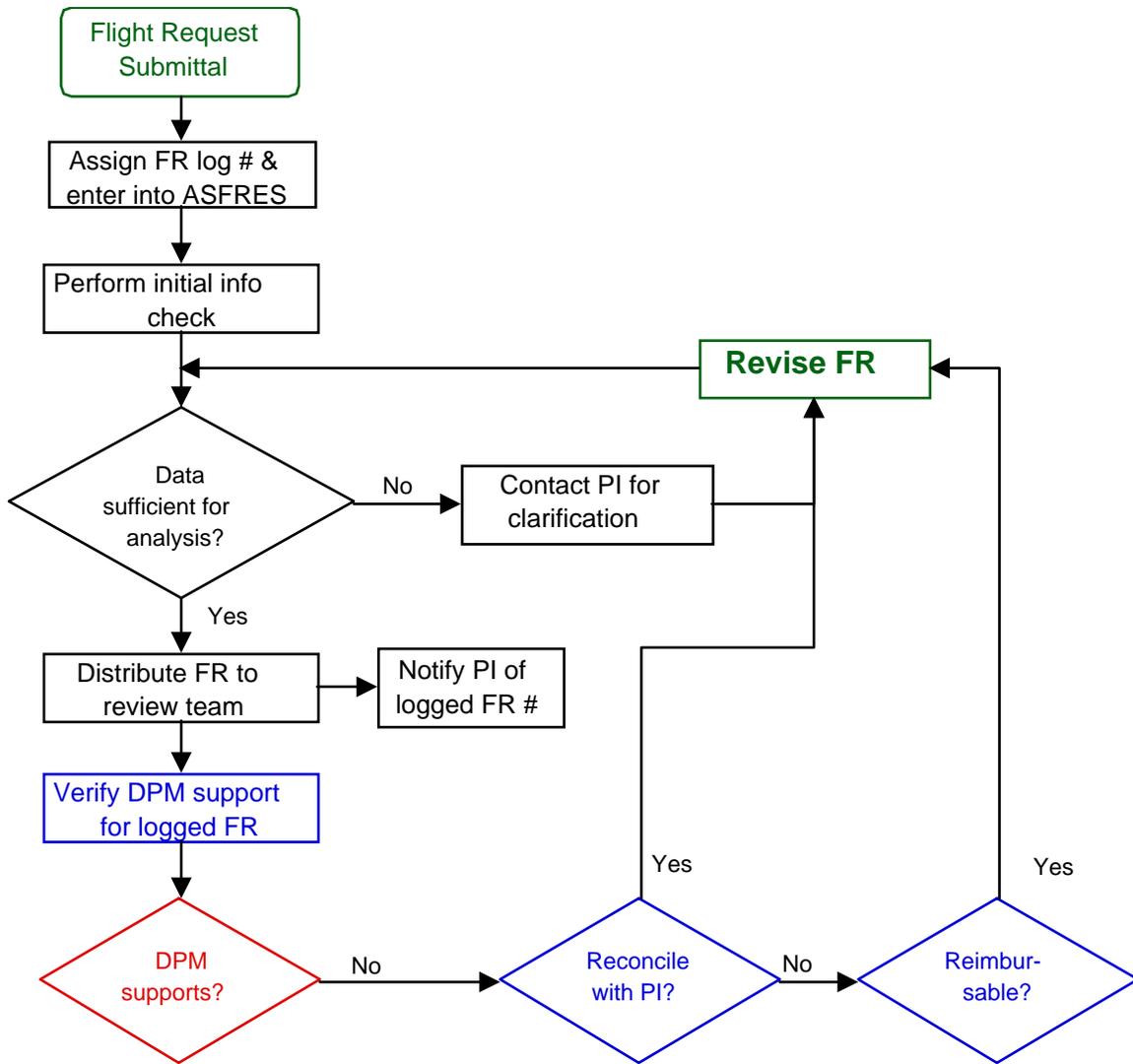
Typically the desired aircraft or platform is specified in the request. However, there are different types of flight requests. Some may require only data; some may have platform requirements where the position, speed, and timing of the aircraft are important to achieving the science objective. The FR system accommodates these various types of requests.

Once the flight request has been submitted, it is reviewed, assigned a unique log number, distributed to the aircraft or instrument groups for analysis, and a recommendation is made as to whether to approve the request. The analysis of a request usually includes determining the feasibility/practicality of the request and estimating the number of flights, flight hours, and cost based on flight planning tools and experience of the flight crew and mission managers. The submitter is notified when a flight request has been accepted for review, and again upon disposition of the flight request.

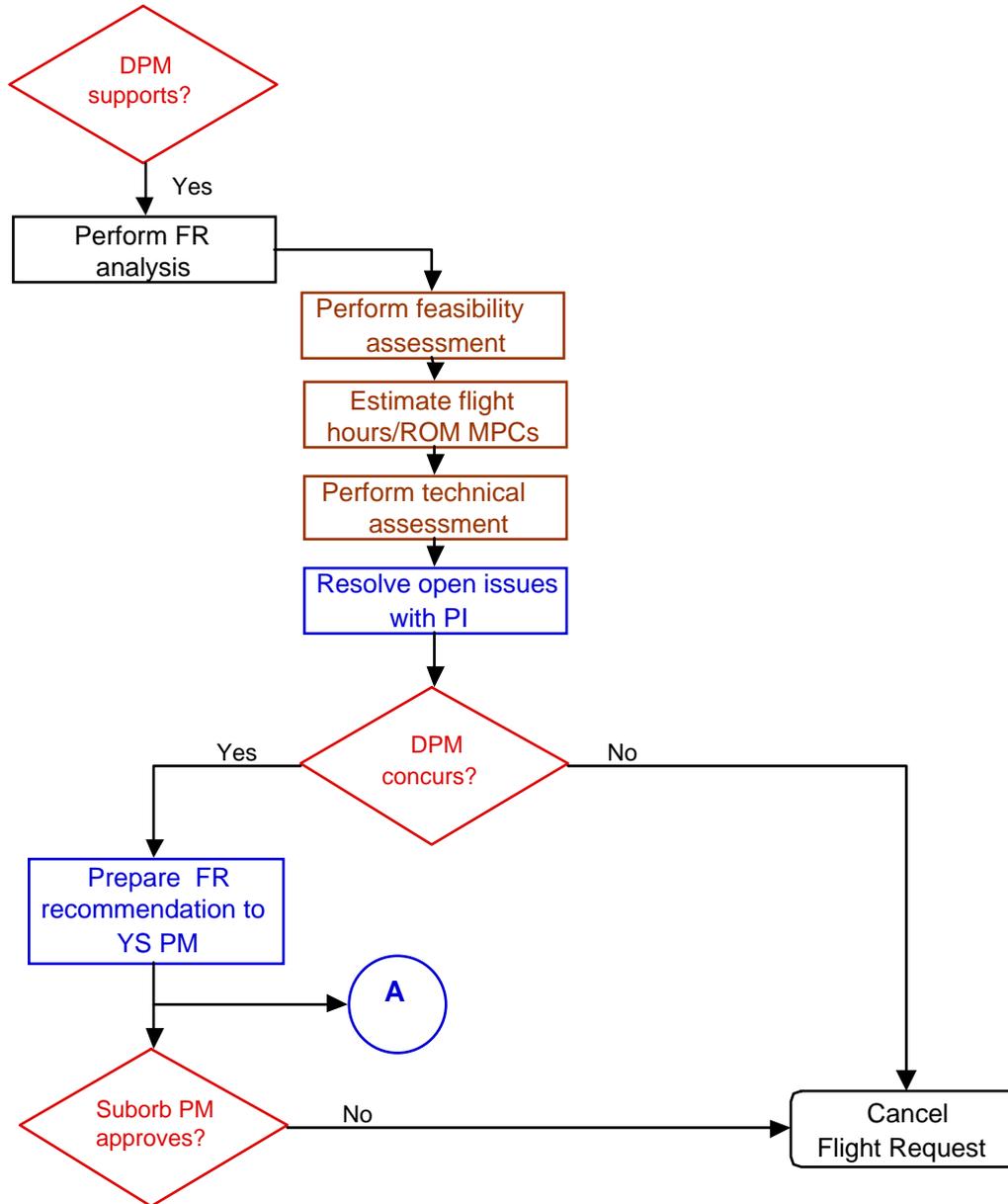
4.3 Process Workflow

The following diagram delineates the process flow from receipt through disposition of the flight requests:

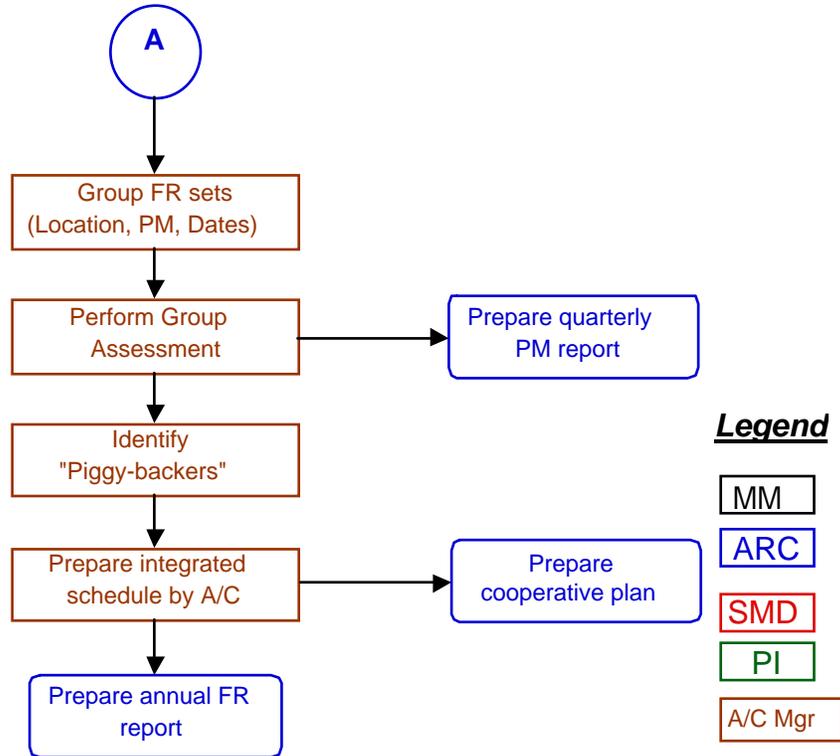
**Figure 1: Flight Request Process Workflow
Submittal and Initial Review**



**Figure 1: Flight Request Process Workflow (continued)
Analysis and Concurrence**



**Figure 1: Flight Request Process Workflow (continued)
Assessment & Reporting**



4.4 Process Definitions and Guidelines

4.4.1 Reimbursable Flight Requests. SMD suborbital assets are available to non-NASA customers on a fully reimbursable basis. Their unique technical and operational capabilities supply a valuable service to non-NASA PIs and government agencies, and the additional funding helps spread the fixed operational costs, which helps control per hour flight costs. However, the use of these assets requires justification as to why the use of U.S. government instruments and aircraft is required (i.e., commercial capability not available, and describe unique science which government asset enables). Reimbursable requests will not be approved without adequate justification.

In general, reimbursable flight requests are approved at the full cost rate. In some cases, NASA rates can be assigned for reimbursable requests when the following three conditions are met:

- There is an interagency agreement.
- There is data sharing with NASA.
- There is alignment with SMD program objectives.

4.4.2 Costing

4.4.2.1 Cost Types. User fees for required flight hours are determined based on the sponsor and the funding source. These fees are the platform flight hour costs, which includes fuel, spare parts, lease on engines, etc. Mission peculiar costs are unique, mission-specific engineering and deployment costs. They include travel, contractor overtime labor, facilities and logistics, instrument integration, consumables, etc. Cost estimates are comprised of the users fees plus the MPCs.

4.4.2.2 MPC Estimation. Rough Order of Magnitude Mission Peculiar Costs (ROM MPCs) are to be provided to the DPM for FR approval. Once an FR is approved, a detailed MPC estimate is developed by the Mission Manager. Estimates are prepared by the Mission/Aircraft Managers and are provided to ARC Earth Science Project Office. The cost estimation methodology of the MPCs is at the discretion of the aircraft management organization. However, rates, assumptions, and break-downs should be included with the estimates. After an FR is approved, the ROM estimate is revised and a detailed estimate is provided to the DPM. The DPM then provides the required funding prior to conducting the flight hours.

4.4.2.3 Reserves. Reserves will be included and called out for all MPC estimates.

- For the ROM estimate, include a 30% uncertainty, which will be held by the Discipline Program Manager.
- After an FR is approved and a detailed estimate is provided to the PM, a 15% reserve will be included, which will be held by the center responsible for managing the flight.
- Mission Managers can spend up to the provided amount (i.e., the 15%). Any expenditure beyond this amount would require advance approval by the responsible Program Manager.

- Unless requested by the responsible Program Manager, unused reserve will be retained by the aircraft center to offset unexpected non-recurring expenses.

4.4.3 Carry-over

At the end of each fiscal year, all FRs are closed, cancelled, or resubmitted. Approved hours or funds from the previous fiscal year may go into a “pool” (by aircraft or center) and can be reassigned by the DPM. Funds for unflown hours are to be returned to the DPM no later than the end of the 3rd quarter of the second fiscal year.

4.4.4 Piggy-backs

Piggy-backs are activities which can be added to an airborne science flight with little or no cost or mission impact. These piggy-backs provide opportunities for flight time on pre-approved flights for such activities as instrument check-out or calibration. However, a piggyback payload cannot direct an aircraft's route or change its schedule if contrary to the primary payload's objectives. Proposed piggy-backs should be submitted as regular flight requests, and are evaluated and assigned by a aircraft/mission manager based on an approved superseding FR.

4.4.5 Log Number Protocol

The flight request log number is a five digit alphanumeric identifier assigned to a flight request for tracking and identification purposes. The following describes the protocol for assigning log numbers for flight requests received after October 1, 2002:

- The first digit corresponds to the last digit of the flight season. Flight seasons coincide with fiscal years, so the flight season starting October 1, 2002 is the FY03 (fiscal year 2003) flight season and log numbers for that flight season will start with “3”.
- The second digit identifies the aircraft designated in the flight request as follows:

Aircraft	Designator
DC-8	8
ER-2	2
P-3	P
Learjet 23	L
Twin Otter	T
B-200	D
WB-57	W
J-31	J
UAVs	U
Other	M

- The third digit indicates how many aircraft are requested:
 - 0 and 1 = one aircraft requested
 - 2 = two aircraft requested
 - 3 and higher = three or more aircraft
- The fourth and fifth digits are sequentially assigned numbers. For multiple aircraft flight requests, these digits will remain the same (i.e., 32201 and 38201 are related.)

4.4.6 FR Status Taxonomy. Five categories define the status and disposition of all FRs

- Open – FR submitted by PI and logged into system, awaiting review and approval.
- Approved – FR accepted and approval to conduct flight granted pending receipt of funding.
- Cancelled – Program manager initiated action, lack of support, scientific justification or funding.
- Withdrawn – PI initiated action.
- Completed – Approved flight hours have been flown and documented.

4.4.7 FR Fund Source Taxonomy. Three fund source categories are used to describe the type of flight hour funding.

S – SMD. NASA sponsored rate.

R – Reimbursable. Full cost rate or NASA sponsored rate (upon approval).

O – Other

5.0 Communication & Reporting

Since the organizations involved in the flight requests are geographically distributed, well coordinated communication between the groups identified in section 3.0 above is essential for successful response to the science community. Furthermore, the lines of communication between these groups are directed linked to the roles & responsibilities identified in that section. In general, the ESPO is the primary interface between DPMs and aircraft/mission managers for flight request related issues. ESPO is also in regular contact with NASA Headquarters via phone and e-mail, and conducts status reviews at HQ roughly once per quarter.

Regular reporting of flight request status and accomplishments is also important. Monthly FR status reports will be provided to the Suborbital Science Program Manager, and quarterly summary report will be provided to the SMD Earth Sun Division Discipline Program Managers to identify approved, funded and flown status on each request under their purview. In addition, to inform the

customer community of the accomplishments of the airborne science aircraft, an annual Flight Summary Report will be prepared and made available.

6.0 Schedule & Resources

A representative annual schedule is provided in Appendix D, which illustrates the sequence and flow of the major FR tasks.

It is estimated that approximately four civil servant and contractors equivalents, distributed across six NASA centers, are necessary for managing the flight requests. Funding for this work is provided and directed by the Suborbital Science Program Manager.

Appendix A

Flight Request Tracking Data

- FR Log Number
- Aircraft Type (DC-8, ER-2, P-3, WB-57, Learjet 23, Twin Otter, B-200, King Air, J-31, and Aerosonde, Altair/UAVs)
- Title
- PI Name
- PI Org
- PI Phone
- Sponsor
- Sponsor Org
- Recommended Hours
- Approved hours
- Accrued Hours
- Estimated Cost
 - Flight hours
 - Mission Peculiar
- Actual Costs
- Status (Open, Approved, Cancelled, Withdrawn, Completed)
- Date
- Start/Finish or Start/Duration
- Instruments
- Location
- Fund Source
 - S – SMD
 - R – Reimbursable
 - O – Other

Appendix B: Sample Flight Request Form

 AIRBORNE SCIENCE FLIGHT REQUEST National Aeronautics and Space Administration	LOG NUMBER
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Investigation Title: _____

Rationale for use of NASA Facilities: _____

NASA RTOP If checked, RTOP Number/Grant or Contract # _____

Proposal submitted to NASA If checked, Proposal # _____ Non-NASA

<p><u>Principal Investigator:</u></p> <p>Name: _____</p> <p>Organization: _____</p> <p>Address: _____</p> <p>City, State & Zip: _____</p> <p>Phone: _____</p> <p>FAX: _____</p> <p>E-Mail address: _____</p>	<p><u>Funding Agency Sponsor:</u> <small>(For NASA Programs List NASA HQ Sponsor)</small></p> <p>Name: _____</p> <p>Organization: _____</p> <p>Agency/Code: _____</p> <p>Address: _____</p> <p>City, State & Zip: _____</p> <p>Phone: _____</p> <p>FAX: _____</p> <p>E-Mail address: _____</p>
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Aircraft Required:

<input type="checkbox"/> ER-2	<input type="checkbox"/> DC-8	<input type="checkbox"/> P-3B
<input type="checkbox"/> DOE B-200	<input type="checkbox"/> TWIN OTTER	
<input type="checkbox"/> Other (i.e., UND Citation, WB-57, etc.)		

<p>General Flight Window (Month):</p> <p>A) _____</p> <p>B) _____</p> <p>C) _____</p> <p>D) _____</p>	<p>General Site Location (State or Country):</p> <p>A) _____</p> <p>B) _____</p> <p>C) _____</p> <p>D) _____</p>
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(Do not mark in this space/For office use only)	<p><u>Mail completed forms to:</u></p> <p>National Aeronautics and Space Administration</p> <p>Suborbital Science Coordinator</p> <p>Ames Research Center</p> <p>Moffett Field, CA 94035</p> <p>Phone (650) 604-4388</p> <p>FAX (650) 604-3625</p> <p>E-Mail: imccubbin@mail.arc.nasa.gov</p>
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Background and Primary Science Objectives

(Attach RTOP, grant, or contract proposal abstract) Please list your primary science objectives.

Aircraft sensor and data requirements:

PLEASE NOTE: Investigator(s) responsible for cost associated with instrument and Starlink operation.

For more information see Airborne Sensor Facility WebPage at <http://asapdata.arc.nasa.gov>

SENSORS: SAR AVIRIS Low-altitude AVIRIS MAS
 MASTER TMS P.I. Instrument

CAMERA: RC-10 Other

Data Requirements:

SPECIAL DATA REQUIREMENTS: _____

GROUND RESOLUTION: _____

OTHER: _____

Advance Notification of Flight Attempt (Please Check One)

- Does Not Require Notification Prior to Flight
- Requires Notification Prior to Flight (see below)

Name of Person to Contact: _____

Phone Number & Email Address: _____

Alternate Person to Contact: _____

Phone Number & Email Address: _____

Notify above individual on: day of flight days in advance of flight (___ of days)

Supplemental Information or Comments: _____

TEST SITE REQUIREMENTS

(Photocopy this sheet and complete a separate page for each site)

NOTE: For AIRSAR, please fill out JPL flight line request form, page 4.

Test Site Location/Descriptions:

Test Site Mean Altitude (Above sea level):

(Attach map(s) showing region of interest or desired flight lines)

OVERFLIGHT TIME PERIOD(S) REQUIRED (Show date or dates if temporal coverage required)

Date: Tolerance:

Date: Tolerance:

Date: Tolerance:

SPECIAL OBSERVATION REQUIREMENTS AND CONSTRAINTS

Weather Conditions:

Satellite Overpass:

Cloud Cover % (Maximum):

Flight Line Orientation:

Sun Angle Limits:

Sea State:

Ground Condition:

Tidal Cycle:

Other:

FLIGHT LINE REQUIREMENTS (Check one)

(Low-altitude AVIRIS use Actual Flight Coordinates Only)

Actual Flight Coordinates Coordinate BOX (List 4 Corners) Center Point (See Below)

Flight Line Number	Flight Altitude (MSL in 1000 ft.)	Line Length (Nautical Miles)	Overflight Time of Day (local)	Flight Lines (Latitude & Longitude) (<i>degrees, minutes & tenths</i>)	
				Start	End

CENTER POINT COORDINATES

Lat.: Long.: Coverage Length/Heading:

Scene Overlap Front: Side:

Appendix C: Sample Call Letter

YS

May 23, 2003

TO: Distribution

FROM: Earth Science Enterprise Suborbital Science Manager

SUBJECT: FY 2004 Suborbital Science Flight Program Development

The Suborbital Science Office of the Science Mission Directorate (SMD) announces the annual call for requests to use the NASA/SMD suborbital observing capabilities in FY2004, to further SMD's research to understand the Earth system and apply Earth system science to improve prediction of weather, climate and natural hazards, as only NASA can.

Changes in the Suborbital Science Program

The Suborbital Science Program is undergoing significant change in content and nature, in accordance with the NASA Vision and Mission and to improve alignment with national imperatives such as the Climate Change Research Initiative and the President's Management Agenda. We are beginning a transition away from a small core of NASA assets towards a catalog approach of federal and commercial sources. This will permit NASA to concentrate more resources on introducing innovative suborbital platforms.

Because we are at the beginning of the transition period, procedures to establish, maintain and exploit the catalog of sources are not yet finalized. The current catalog is based on recent flight safety reviews with various aircraft service providers, commercial product verification and validation program tasks, and interagency agreements. We will appreciate your patience as we work through experimental procedures to update the catalog and to allocate/schedule the assets.

Included as an attachment is a policy statement on use of in-house and commercial assets specifically addressed to suborbital data collection.

Accessible Assets

Accessible suborbital capabilities – platforms, sensors and commercial products – are catalogued on the SMD Suborbital Science web page: <http://www.earth.nasa.gov/science/suborbital/>.

The NASA ER-2, P3-B, and DC-8 continue to be available but with fewer flight hours due to funding constraints. The Stennis Space Center Learjet 23 also remains available, but is now allocated through the Suborbital Science program as part of the core fleet rather than directly through the Stennis Space Center. Non-NASA platforms for which blocks of pre-negotiated flight hours are available include the commercial Twin Otter, Sky Research Cessna Caravan, and the DOE KingAir. Access to other platforms will be negotiated whenever needed and feasible.

We encourage investigators to use Uninhabited Aerial Vehicles (UAVs) and we are currently looking into providing blocks of flight hours for one or more vehicles as a convenience to users. Because UAVs are subject to a number of regulatory and airspace restrictions, early coordination with the listed Point of Contact is essential to ensure that airworthiness and airspace considerations are addressed in a timely manner.

User Fees

All suborbital assets are subject to user fees which are assessed by the organization operating the facility. For SMD funded researchers using NASA assets, the fees will normally be withheld from the investigator's budget and sent by the funding sponsor directly to the NASA aircraft or sensor organization. For researchers using non-NASA assets, payment of the fees will vary and the Suborbital Science business managers are prepared to assist the researcher through the financial procedures.

Because NASA/SMD maintains the facilities as part of the Earth Science Research theme, investigators performing non-NASA research may be charged a full-cost recovery rate. In addition, use of NASA 'facility' sensors by investigators not sponsored by the sensor's sponsoring research program may be charged additional costs for the sensor's operation and data processing. The estimated costs for each flight request will be provided to the funding sponsors after the operators' review (approximately July 2003). Allocations will be made in September 2003.

Submitting a Request

You must submit a Flight Request to be approved, scheduled and funded for a data collection in FY04. The Flight Request is available as an on-line electronic form submission accessible from the Suborbital Science Program Home Page: <http://www.earth.nasa.gov/science/suborbital>.

All Flight Requests must include the name and contact information of a funding sponsor who will approve the user fee expense. For SMD researchers, the sponsor is the program manager who has issued your grant or contract. Pre-coordination with your sponsor is recommended.

The Suborbital Science Program will accept Flight Requests from:

- NASA researchers and program managers;
- Investigators with a current or pending grant, contract or cooperative agreement for NASA research;
- Research program managers of the other federal agencies of the Interagency Coordinating Committee for Airborne Geoscience Research and Applications;
- Investigators who require NASA's unique assets (Specific and explicit rationale for use of the NASA assets must be provided with the request, and the full cost may be charged.)

If you experience problems with the form, have questions about submitting the Flight Request or need additional information about the available assets or preliminary cost estimates, please contact Helene Hendriks at (650) 604-5099 or Helene.A.Hendriks@nasa.gov.

Questions regarding the Suborbital Science Program can be addressed to the undersigned at (202) 358-0758 or Cheryl.L.Yuhas@nasa.gov.

Completed flight requests are due COB July 18, 2003.

Cheryl Yuhas

Distribution:

YS/Dr. J. Kaye

ARC/Mr. D. Peterson

DFRC/Dr. T. Mace

GSFC/WFF/Mr. P. Bradfield

SSC/Dr. D. Powe

Appendix E

Abbreviations & Acronyms

OFRMS	Online Flight Request Management System
ARC	Ames Research Center
SSP	Suborbital Science Program
DFRC	Dryden Flight Research Center
DPM	Discipline Program Manager
SMD	Science Mission Directorate
ESPO	Earth Science Project Office
FR	Flight Request
GSFC	Goddard Space Flight Center
MPC	Mission Peculiar Cost
NLT	No Later Than
OES	Office of Earth Science
PI	Principal Investigator
PM	Program Manager
ROM	Rough Order of Magnitude
SSC	Stennis Space Center
SSPM	Suborbital Science Program Manager
UAV	Unmanned Aerial Vehicle
WFF	Wallops Flight Facility