

National Aeronautics and
Space Administration



HPAC 101: Welcome to the HPAC

Heliophysics Science Advisory Committee

What is HPAC?

The Heliophysics Science Advisory Committee (HPAC) is an Advisory committee chartered under the [Federal Advisory Committee Act \(FACA\)](#)



FACA committees are established to **provide information and advice** on a broad range of issues affecting federal policies and programs

FACA committees should (per the GSA requirements):

- Provide advice that is relevant, objective, and open to the public
- Act promptly to complete their work
- Comply with reasonable cost controls and record keeping requirements
 - Primarily the FACA committee Executive Secretary's responsibility

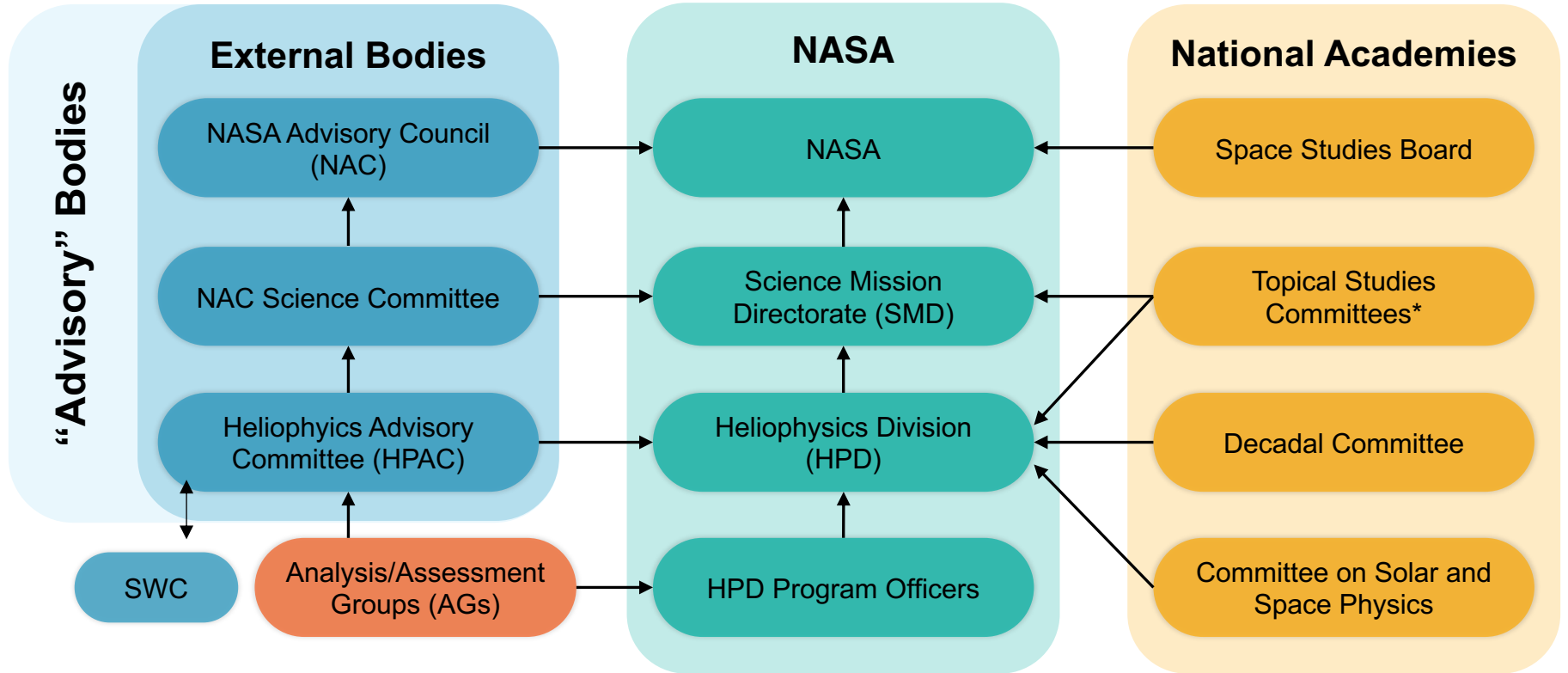


The HPAC Charter

The [HPAC Charter](#) defines important components of the HPAC, including the descriptions of duties, HPAC frequency and duration, membership and designation steps, and most importantly, the objectives and scope of activities:

- “The HPAC shall draw on the expertise of its members to **provide advice and make recommendations** to the Director, Heliophysics Division, Science Mission Directorate, NASA Headquarters (hereinafter, "Director, Heliophysics Division") on heliophysics programs, policies, plans, and priorities. The HPAC's recommendations and analysis can be used **to inform decisions on the programmatic scope and priorities**, as well as **the implementation** of heliophysics programs. In addition, the HPAC will **provide a regular forum** for broad discussion of heliophysics and the role of heliophysics within and outside of NASA.”
[\[HPAC Charter, 3. Objectives and Activities\]](#)

Context of the HPAC



*Topical Study Committees can be standing committees, such as the Committee on Planetary Protection, or narrow-focus committees established for a single topical report (e.g., "Strategic Investments in Instrumentation and Facilities for Extraterrestrial Sample Curation Analysis")



The Role of the HPAC: Ground Rules

- HPAC provides highly valued **recommendations** and **advice** to HPD
 - HPD carefully considers inputs but **may not** be able to follow or respond to the recommendations and advice provided for various reasons
- HPD **creates meeting agendas** in collaboration with the HPAC chair, including:
 - Topics of special interest to HPD for which advice is requested
 - Additional topics that HPAC members would like to discuss
 - Must follow the ethics constraints set forth by FACA
- HPAC **can request HPD presentations and information** to create topic recommendations and/or advice
 - NASA may not share information due to Federal law or regulations
- The HPAC operates as an **advisory** but not an **oversight body**
 - The FACA charter does not include directing Agency activity, or that of individuals in the Agency

Findings vs. Recommendations

Findings and recommendations serve to:

- **Provide direction** to HPD and
- **Provide support for new directions** HPD wants to take



Findings: Observations made by the HPAC that do not require a response

- e.g., “The HPAC commends NASA on the successful launch of Parker Solar Probe.”

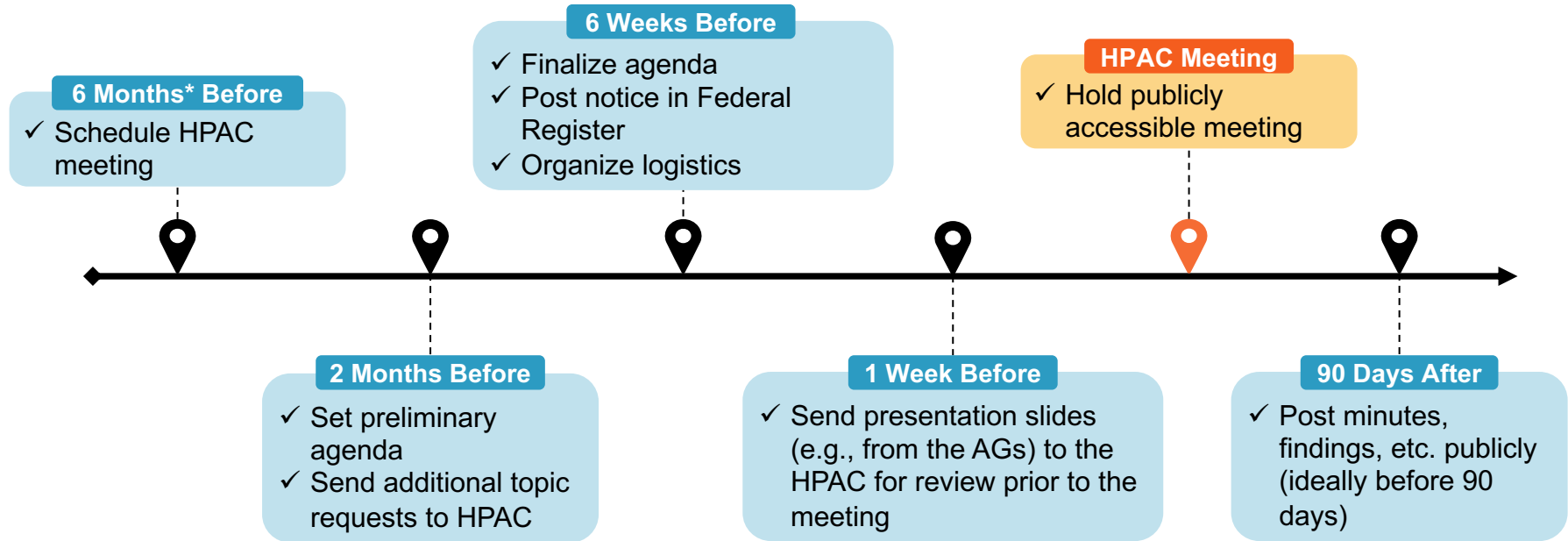


Recommendations: Advise a course of action for HPD and may receive an official NASA response

- Recommendations are **Concise, Clear, and Actionable**
 - Overly broad recommendations are open to interpretation and prove difficult to implement
 - Due to NASA staff bandwidth, it is important to prioritize recommendations that NASA can sustainably respond to

HPAC Operations: Notional Timeline

The HPAC meets 3 times/year, with various pre-meeting and post-meeting activities, outlined below.



**HPD may have to schedule HPAC meetings within 6 months of each other if there are 3/year*



Meeting Requirements

All meetings **must be available** to the public (i.e., public video-conferencing link)

Stick the Agenda

- Can fall behind the agenda, but cannot be ahead of the agenda
- Presentations may start **no earlier than** the time listed on the agenda

Questions and Comments

- There **must be a public comment period** every meeting for the public to ask questions or submit comments
- Any findings **must be substantively discussed** during the public meeting
- The Executive Secretary, who must be a Designated Federal Officer (DFO), **must be present** at all HPAC meetings
 - DFOs are a Civil Servant representative or delegate of HPD
 - DFO and Executive Secretary titles are used interchangeably
- NASA and HPD want to hear from all HPAC members
- Only HPAC members can ask questions during the regular meeting period



Space Weather Council (SWC)

The SWC is a **standing subcommittee of the HPAC**. As such, the SWC reports to and is responsive to actions levied by the HPAC. As appropriate, the SWC may seek scientific and programmatic input from the heliophysics and space weather communities at large on matters relevant to their actions.

<https://science.nasa.gov/heliophysics/space-weather-council>

Members

- **Nicole Duncan** – Chair, Ball Aerospace
- **Michele Cash** - NOAA/SWPC
- **Janet Green** - Space Hazards Applications, LLC
- **Alexa Halford** - NASA/GSFC
- **Piyush Mehta** - WVU
- **Paul O'Brien** - The Aerospace Corp.
- **Angelos Vourlidas** - JHUAPL
- **Daniel Baker** - University of Colorado
- **Ronald Turner** - Analytic Services Inc.
- **Sage Andorka** - USSF

A decorative graphic on the left side of the slide features a curved, semi-circular shape containing a space-themed illustration. It shows a bright sun or star in the bottom left, a blue and white Earth in the bottom right, and several other celestial bodies including a brown planet, a grey planet, and a ringed planet (like Saturn) against a starry blue and green background.

Role of DFO

- Calling, attending, and adjourning committee subordinate group meetings
- Approving meeting agenda
- Maintaining required records on costs and member availability in coordination with an SMD Administrative Office POC for public access
- Ensuring HPAC process components are executed appropriately and efficiently
- Ensuring committee has appropriate number of members and overseeing onboarding processes
- Providing copies of the HPAC reports to the NASA Advisory Committee Management Officer for forwarding to the Library of Congress
- Coordinating ethics training with the Office of the General Counsel (OGC)



Notes, Findings, and Correspondence

- An external, professional notetaker must attend every HPAC meeting and share the notes with the DFO, who distributes them to all speakers for verification of accuracy
 - Revisions are sent back to the notetaker, and the final version is approved by the DFO and HPAC Chair
- Details of findings (wording, etc.) are determined by the HPAC; final findings are signed by the DFO and HPAC Chair
- As a FACA committee, all findings require consensus of the group
- HPAC members should cc the DFO on any correspondence regarding official HPAC business (i.e., NEED EXAMPLES)
 - Why? – If there is a FOIA request, the DFO and NASA will have all records needed to respond quickly
 - If there is an issue in which cc'ing the DFO would prevent open discussion, please include an alternate civil servant on the correspondence and inform them that the records will be preserved for FOIA purposes



Recusal

If an HPAC member may benefit personally or professionally from the discussion of a given topic, it is a NASA-HPD best practice that the member recuses themselves to avoid any conflicts of interest.

- HPAC members cannot provide advice on issues for which they have a conflict, or may be perceived as having a conflict
 - E.g., HPAC Member A is the PI for the Hypothetical Explorer (HEX) mission. Member A should recuse themselves from any specific discussion of issues surrounding HEX and should not contribute to any findings on it
- The DFO is responsible for determining if discussion topics present conflicts of interest or require recusals
 - E.g., The HPAC starts talking about the funding balance between specific R&A programs. Nearly all the HPAC members have applied to one or more of the programs, causing the DFO to stop the discussion. As the HPAC members are essentially in an advocacy role for a source of funding that they would personally benefit from the discussion of, they need to recuse themselves

Legal Restrictions: NASA

Federal Agencies and FACA committees have specific legal restrictions applicable to the HPAC operations. Below are descriptions of legal restrictions the HPAC navigates.



Lobbying Congress

Civil Servants **cannot lobby Congress** for their own Agency, or ask others to do so on their behalf

- E.g., “If you want more money for X, you need to go talk to your Congressperson.”



Funding Redistribution

HPD **cannot redistribute funding** allocated by Congress without explicit approval from the Office of Management and Budget (OMB) and Congress

- Moving money between budget wedges is extremely challenging and may not be allowed!



Taking Advice

HPD **cannot take advice** from any non-FACA group

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Disclosures and Conflicts

Annually, **HPAC members must:**

- File financial disclosures
- Obtain a ruling on any potential conflicts of interest from NASA lawyers
- Take an ethics training



The Hatch Act

Members must follow the same laws as civil servants, including the Hatch Act. The Hatch Act **forbids the use of government position for the support of a specific candidate/proposition.**

- E.g., “As a member of the HPAC, I think you should all vote for Senator John and for Proposition D”
 - **This does not extend to advocacy**, you can say “The HPAC thinks climate change is a problem and we should do something about it”
- This restriction only applies while members are carrying out the duties of the HPAC

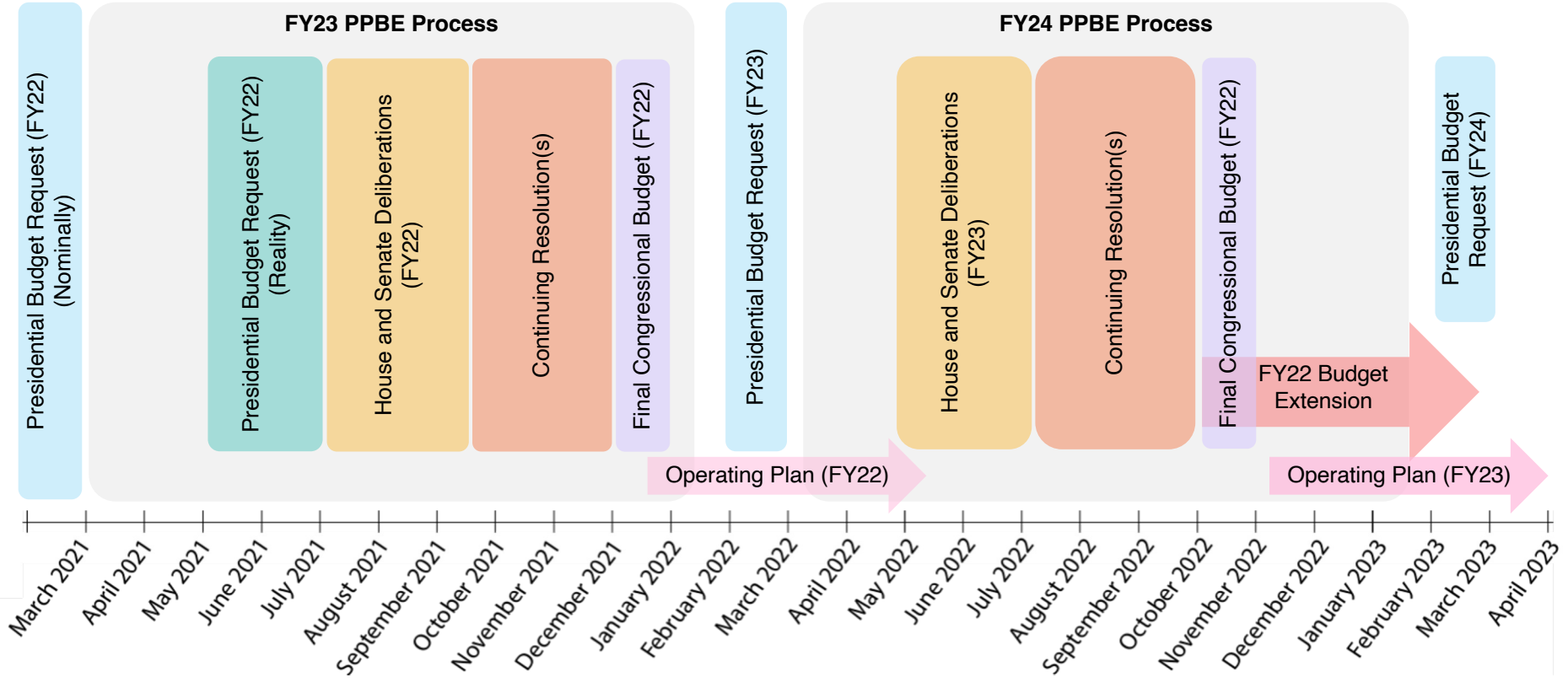


Federal Budget Key Information

- The President makes a budget request for the year, which the Agency must plan to
- The Federal Budget Process is not always smooth, and anomalies occur
 - E.g., The PBR was later than usual for FY22, a common with a new administration
- PPBE stands for Planning, Programming, Budget, and Execution
- NASA has work to accomplish during the PPBE Process and the Operating Plan
 - *Note: NASA may be operating on three different year's budgets at the same time*
- When Congress does not pass a budget, the Agency operates on a Continuing Resolution, following the previous year's appropriation

1: "Programs" refer to topics called out in the previous FY's budget (e.g., the Discovery program)

The Federal Budget Process



The PPBE Process

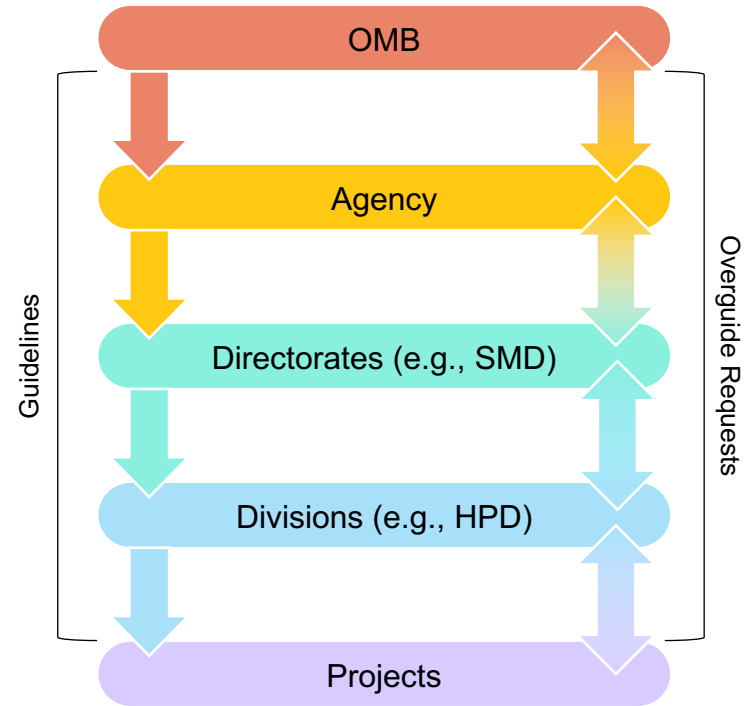
The PPBE Process begins with the Office of Management and Budget (OMB) sending budget guidelines for the next fiscal year to all Agencies/Departments

- The budget guidelines flow down from the Agency to the directorates, divisions, and projects
- The next fiscal year begins 1.5 years later

Agencies (at all levels) prepare a budget request that is in-guide with the guidance

Additionally, agencies prepare overguide requests with an associated justification, for additional funds

- Requests from projects have to be approved all the way up the chain displayed on the right





Continuing Resolutions

A Continuing Resolution allows government agencies to continue its operations in the absence of a Congressional Budget being passed. This means that:

- The appropriation is the same as the previous year's budget
- No new programs¹ can start
- No existing programs can stop (or spend more/less money)
- Anomalies can be addressed through an existing process

When government agencies have been operating on a continuing resolution, they are spending for the current FY according to the previous year's appropriations. If a significantly different budget passing for the current FY, it can shock agencies.

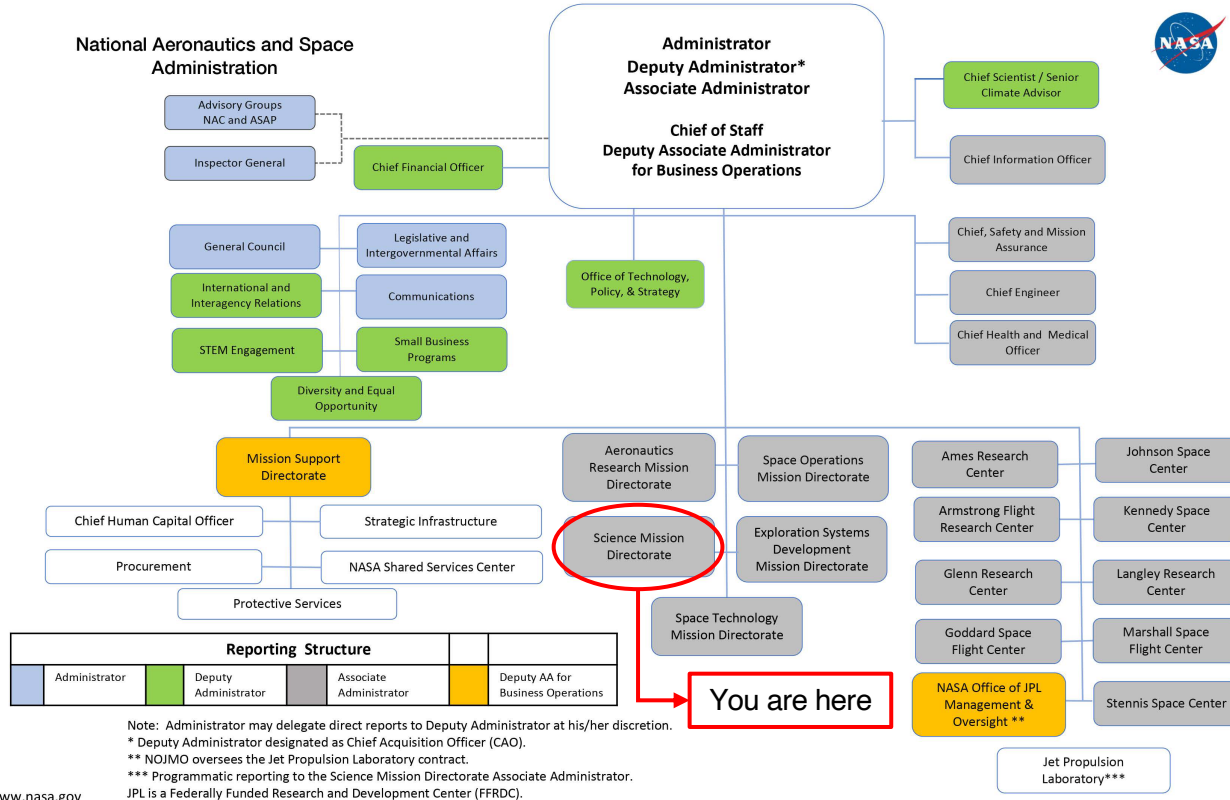
- E.g., The new budget states "NASA should stop running Program X". However, under a continuing resolution, NASA has already spent funding on Program X because the previous budget appropriated for it. The money spent under a CR cannot be unspent.
 - This consideration becomes a factor in developing an operating plan for the year

1: "Programs" refer to topics called out in the previous FY's budget (e.g., the Discovery program)

The background of the slide is a composite of two cosmic images. The top half features a dark blue and black space filled with numerous small stars and a prominent, bright blue nebula on the right side. The bottom half shows a similar starry field but with a warm, golden-yellow and greenish glow, suggesting a different nebula or star formation region. The text 'Additional Materials' is centered in a white horizontal band across the middle.

Additional Materials

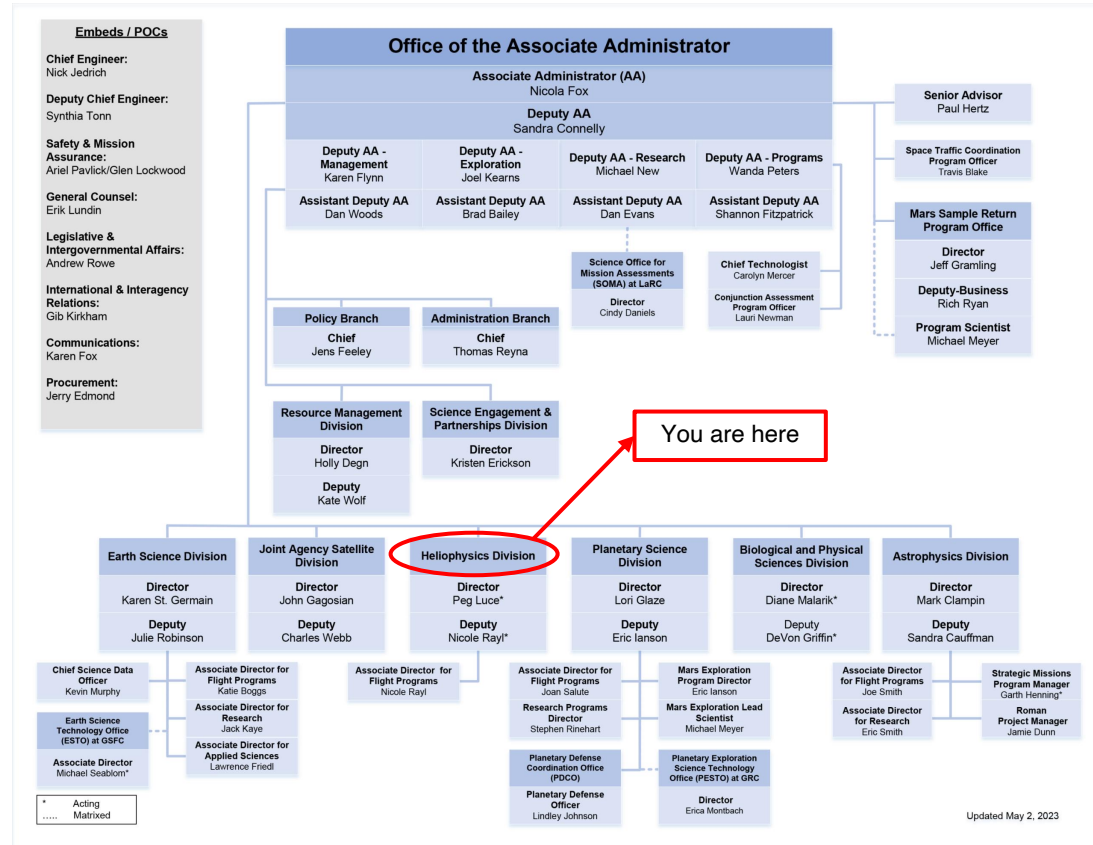
NASA Organizational Chart



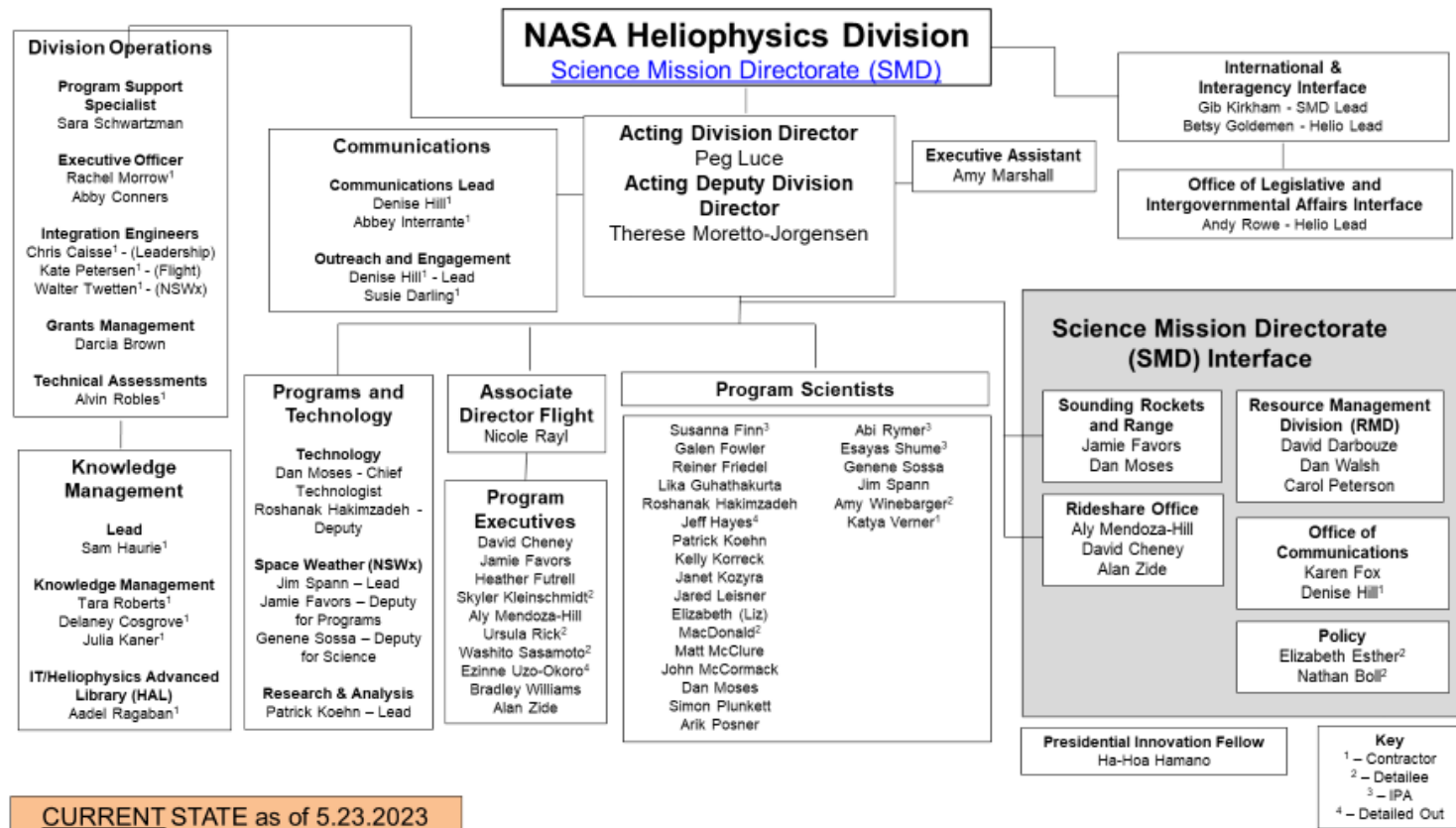
Reporting Structure			
Administrator	Deputy Administrator	Associate Administrator	Deputy AA for Business Operations

Note: Administrator may delegate direct reports to Deputy Administrator at his/her discretion.
 * Deputy Administrator designated as Chief Acquisition Officer (CAO).
 ** NOJMO oversees the Jet Propulsion Laboratory contract.
 *** Programmatic reporting to the Science Mission Directorate Associate Administrator.
 JPL is a Federally Funded Research and Development Center (FFRDC).

SMD Organizational Chart



HPD Organizational Chart



CURRENT STATE as of 5.23.2023



Abbreviations and Acronyms

AG	Analysis or Assessment Groups	IPA	Intergovernmental Personnel Act
CSSP	Committee on Solar and Space Physics	NPMP	NASA Postdoctoral Management Program
CR	Continuing Resolution	HPAC	Heliophysics Science Advisory Committee
FACA	Federal Advisory Committee Act	OMB	Office of Management and Budget
FOIA	Freedom of Information Action	PBR	President's Budget Request
GSA	General Services Administration	PPBE	Planning, Programming, Budget, and Execution
SMD	Science Mission Directorate		

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Useful Links

<https://science.nasa.gov/researchers/nac/science-advisory-committees/HPAC>

Reporting requirements are changing soon; details are still coming, but for context: <https://www.whitehouse.gov/wp-content/uploads/2022/01/010422-NSPM-33-Implementation-Guidance.pdf>

The Federal Budget Process

