

National Aeronautics and
Space Administration
Office of the Administrator
Mary W. Jackson NASA Headquarters
Washington, DC 20546-0001



May 4, 2022

Dr. Patricia Sanders
Chair
NASA Aerospace Safety Advisory Panel
Washington, DC 20546

Dear Dr. Sanders:

Enclosed is NASA's response to the Aerospace Safety Advisory Panel (ASAP) Recommendation 2021-05-02: Establishment of an Agency Board of Directors. This recommendation was publicly deliberated during the ASAP teleconference meeting held on December 6, 2021.

Please do not hesitate to contact me if you or the Panel would like further background on NASA's response.

I look forward to receiving continued advice from the ASAP that results from your important Quarterly and Insight fact-finding meetings.

Sincerely,

A handwritten signature in black ink that reads "Bill Nelson".

Enclosure:
2021-05-02: Establishment of an Agency Board of Directors

NASA Aerospace Safety Advisory Panel Recommendation

2021-05-02: Establishment of an Agency Board of Directors

Finding:

Over the decades, at various times with varying amounts of success, NASA leadership has sought to create an Agency-wide identity to foster greater coordination. There remains, however, a very strong and separate culture at each NASA Center, which drives the Centers to prioritize their own goals rather than those of the overall Agency. In turn, this creates pressure against the implementation of a strategic approach that aligns the whole organization to a common set of goals. Importantly, moreover, the resource flow remains Center-focused rather than optimized around integrated outcomes.

Recommendation:

As a part of an overall risk management approach and in order to develop and execute its strategic vision for the future of space exploration, NASA should establish and provide leadership through a “board of directors” that includes the Center Directors and other key officials, with the emphasis on providing benefit to the Agency’s mission as a cohesive whole, and not to the individual components of the Agency. The Board should act to identify the strategic risks and obstacles that NASA may encounter in executing its mission, evaluate Agency-level mitigation approaches, and align the efforts of all Centers to ensure desired outcomes.

Rationale:

Although NASA has well-established executive management forums through which it deliberates various Agency decisions, it does not convene senior leaders as a strategic team with a holistic perspective on the Agency. Thus, the Panel recommends the Agency adopt a “Board of Directors”—like governance approach for its executives. Under this construct, the Administrator’s most senior staff at Headquarters and the Center Directors would comprise an Agency steering committee with a deliberate Agency-level focus, rather than as representatives from and advocates for their areas of responsibility or field Centers.

NASA could convene this team in various ways, but it need not be a new or separate forum. Rather, NASA should set different engagement expectations for these leaders when they meet, in that they should “leave their individual program and/or Center hats at the door,” and focus on corporate-level challenges, opportunities, and decisions driven by the best interests of the Agency and its ongoing missions. This imperative to focus on the entirety of the enterprise can help support the tough resource decisions necessary to contend effectively with the challenges of stakeholder demands, inevitable schedule pressures, and budget constraints. With NASA’s critical resources, workforce, and infrastructure largely managed at field Centers incentivized to protect them, the Agency has struggled for many years to shift the workforce out of less critical work or to divest obsolete facilities and infrastructure.

This has added cost and manpower pressures to field Centers that need margin for higher priority work, innovative solutions, and new opportunities. To escape the status quo—i.e., protecting budget, preserving the workforce configuration, maintaining every building and piece of major equipment—an explicit shift to an Agency-level focus is an essential start to reducing fixed costs and freeing more resources for new work in space exploration.

NASA Response:

NASA concurs with the intent of the recommendation to ensure that implementation of a strategic vision for space exploration is conducted as a cohesive whole, and not on individual components of the Agency, and also with the intent that strategic risks and obstacles need to be identified, managed, and mitigated.

However, NASA does not concur that a new Board structure is required, as the current Agency Governance System and its supporting processes, as well as informal senior leadership coordination, provide the structure needed to achieve the intended results. Based on the recommendation, NASA will implement several specific improvements to ensure a strategic focus is maintained, that leaders continue to act as the “Board of Directors” in these existing meetings, and that the approach towards enterprise risks focuses on outcomes rather than tracking.

Summary. Through its Agency Governance System (NPD 1000.3, Chapters 3 and 6), NASA currently maintains a framework to address enterprise-level issues with participation by all Officials-in-Charge. However, steps (as outlined below) can be taken to help ensure that governance participants are mindful of engaging from an enterprise perspective, rather than as representatives from and advocates for their areas of responsibility or Centers.

In addition to formal governance, the NASA leadership conducts strategic discussions with Mission Directors, Center Directors, and other Officials-in-Charge through regular informal meetings, offsites, and other forums.

The Agency also implements a formal Enterprise Risk Management (ERM) process, which is discussed no less than quarterly at the Agency’s Baseline Performance Review (which includes all Officials-in-Charge). Steps can be taken to improve the outcomes of the ERM review and to shift the emphasis from risk status to discussion of the performance and effectiveness of risk mitigations.

Separate from (and parallel with) the ERM process, NASA is actively working initiatives to address several specific issues referenced in the recommendation’s rationale.

Governance. The Agency’s Governance System currently includes the Executive Council (EC), chaired by the Administrator, which may be extended to include others up to and including all Officials-in-Charge, the Acquisition Strategy Council (ASC), the Agency Program Management Council (APMC) and the Mission Support Council (MSC). In addition, the monthly Baseline Performance Review (BPR) is recognized as a component of the governance system. Below these Councils, 20 subordinate governance bodies are chartered and delegated authorities to address specific functional or organizational decisions.

NASA's membership approach for these Councils is highly inclusive. A 2012 assessment tasked by NASA and McKinsey & Company found that NASA's governance bodies were significantly larger (~30-40 members) than benchmarked equivalents in both public and private sector corporate boards (~8-12 members).

The Agency Governance System is designed to maximize focus on enterprise issues, delegating other decisions to subordinate governance bodies, or favoring direct line authority, whenever possible. The general criteria for using NASA's current system are:

- High external stakeholder visibility.
- A high degree of impact across organizations.
- Significant long-term impact, requiring added diligence in decision making.

These principles of lean governance flow down into the Agency Councils' charters (NPD 1000.3 Chapter 3) and specific decision thresholds (NPD 1000.3 Chapter 6). The enterprise perspective is so embedded in the governance system that the first decision threshold table in Chapter 6 is titled, "Thresholds for Agency Enterprise Management Decisions and Reviews" and delineates the specific roles of each Council in addressing these issues.

The system is thus highly inclusive and enterprise-focused; however, the recommendation emphasizes clarity on the *expectations* of leaders in these forums to "leave their individual program and/or Center hats at the door." The governance process itself helps protect against parochial or stovepipe bias by ensuring specific decision criteria are established and met for each Council decision. When Council members provide advice and comments, they are directed to respond primarily to the objective criteria. Their perspectives relative to local authority and implementation impacts are of course valued and part of the consideration, but do not supplant the use of objective criteria. When criteria are unclear or contentious, separate "decision framing" Council meetings are held to ensure leadership alignment on how decisions will be objectively judged.

While wearing the "corporate hat" has long been an implicit expectation of participation in the Agency governance system, given long-term turnover in leadership, proactive steps can be taken to ensure this cultural norm is renewed.

In order to renew expectations on "corporate hat" participation in Councils, NASA will:

- Have each Agency Governance Council Chair share this expectation at an in-board Council meeting that has broad attendance.
- Ask each subordinate governance body Chair to also share the expectation.
- Update the new Council member onboarding briefing and related materials on the "Resources for Members" section of the OneNASA corporate intranet site to communicate the expectation.

Informal Senior Leadership Coordination. In addition to formal governance, many regular and as-needed opportunities are used for informal leadership coordination. Center Directors meet biweekly with the Associate Administrator; these meetings are an opportunity to

present products to Center Directors and get feedback, as well as request representation from their Center in Agency initiatives. Mission Directorates also meet weekly with the Associate Administrator, with the intent to have open dialogue on current issues, maintain situational awareness, and help ensure that there is alignment on Agency-level meetings or products that cross Directorates. These meetings include other key leaders such as the Chief Financial Officer and the Associate Administrators for Communications, Legislative and Intergovernmental Affairs, and International and Interagency Relations. Mid-year and fall senior leadership retreats are large, face-to-face gatherings of all Officials-in-Charge which allow for team building and discussion of Agency-level strategic topics.

Enterprise Risk Management. In 2017, NASA started a formal ERM process, managed by the Office of the Chief Financial Officer (OCFO). OCFO integrates risks from a number of different sources, facilitates other organizations in arriving at agreed-upon risk ratings, and documents mitigation plans. The ERM profile is briefed routinely at the BPR.

The Agency's current (January 2022) ERM profile includes risks related to:

- Aging infrastructure.
- Agency cybersecurity posture.
- On-orbit impact risk.
- Infrastructure impact due to climate change.
- COVID-19 impacts to the Agency.
- Supply chain management.
- Long-term workforce flexibilities and strategies.

The ASAP recommendation emphasizes proactive discussion, evaluation of mitigations, and alignment of efforts. The current ERM reporting focuses on status and changes to risk level (i.e., risk tracking) and can be improved by shifting the focus from what the risk is, to what NASA is doing about it.

To support the ASAP's recommended emphasis, NASA will:

- Adjust the 2022 BPR reporting requirements on ERM to focus on the performance of enterprise risk mitigation plans and discussion of their effectiveness, rather than on status and changes in rating.
- Include in each Agency Governance Council charter specific chartered functions which allow for escalation to review (aligned) enterprise risks. (Currently, only the APMC and MSC charters explicitly reference enterprise risk.) This will provide specific authorities within the governance system to discuss both recognized and emergent risks and issues at a deeper level than is possible at BPR, when needed.