June 10, 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 2021-05-03: Artemis Integrated Program. 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,

[Signature]

Enclosure:
2021-05-03: Artemis Integrated Program
Finding:
NASA has deviated from previous program management “best practices” that have been hallmarks of successful strategic programs. During this past year, the Panel had numerous opportunities, during quarterly meetings as well as special discussions, to better understand how the myriad programs and projects that collectively contribute to the objectives of Artemis will be brought together as a cohesive campaign, and the Panel notes several deviations from NASA’s history that give cause for concern. The ASAP finds three areas of concern:

1. There is no top-level Artemis program, and therefore no Artemis Program Manager to provide comprehensive and aligned integrated guidance that directs resources of all Artemis programs and projects in a cohesive manner to manage the overall risk.
2. No Artemis prime integrating contractor exists in support of the NASA workforce.
3. An unprecedented mix of acquisition approaches presents risk management challenges.

Recommendation:
NASA should manage Artemis as an integrated program with top-down alignment, and designate a Program Manager endowed with authority, responsibility, and accountability, along with a robust bottoms-up, collaborative feedback process for both Systems Engineering and Integration (SE&I) and risk management.

Rationale:
As with many of this nation’s most successful strategic efforts, NASA placed priority on program management approaches that valued clear lines of authority, a coherent resource management approach, and a transparent yet comprehensive roadmap for integrated risk management. NASA has deviated from previous program management “best practices” that have been hallmarks of successful strategic programs. The Agency is attempting to manage the systemic risks of the Artemis enterprise in the structure they have adopted for Exploration Ground Systems, Orion, and the Space Launch System, without deliberately assessing whether that structure is best suited for the necessary purposes of broad integration-and enterprise risk management. Concerns involving the absence of 1) a designated Program Manager with program management authority over all aspects of Artemis developments across the enterprise; 2) a designated Prime Integrating Contractor responsible for risk management integration; and 3) a congruent acquisition life-cycle approach suitable to ensure an overarching blueprint for acquisition, oversight requirements, and insight have prompted the Panel to advise NASA to gain clarity on how this deviation from previous program practices is achieving equivalent risk management outcomes.

NASA Response:
NASA concurs and has established the Artemis Campaign as an integrated organization of Artemis Programs with top-down alignment under the leadership of the Artemis Campaign Manager, Mr. Mark Kirasich. Mr. Kirasich has been provided with the authority, responsibility, and accountability to establish robust SE&I, Risk Management, and
Programmatic (cost and schedule) management processes. The Artemis Campaign has an established governance structure with a single control board for decision authority on multi-program impacts, mission issues, as well as establishing an Artemis-wide technical baseline which includes requirements and processes.

Technical integration occurs via SE&I, Safety and Mission Assurance, and Mission Definition and Utilization established offices within the Artemis Campaign Organization. Additionally, a new role of Mission Development Managers is being established to manage mission-specific implementation which includes, but is not limited to, schedule management assessments, issue resolution/risk tracking, and establishment of mission-specific technical baselines. This role interfaces heavily with Artemis systems to understand hardware development risks and to bring integrated solutions to the forefront to improve schedule performance. Maturity of Artemis milestones and Integrated Reviews have been added to ensure continuous measuring of campaign performance and maintenance of an Artemis-wide technical baseline. Programmatic integration within the Artemis Campaign occurs via Program Planning and Control with the responsibility for establishing an Artemis-wide programmatic baseline which includes budget, schedule, campaign manifest, configuration and data management, risk management, procurement and milestone review, and processes.