

cannot be located, the mine operator shall work with District Manager to resolve any issues before mining resumes.

(f) A copy of the PDO shall be maintained at the mine and available to the miners.

(g) If the well is not plugged to the total depth of all minable coal seams identified in the core hole logs, any coal seams beneath the lowest plug shall remain subject to the barrier requirements of 30 CFR 75.1700, should those coal seams be developed in the future.

(h) All necessary safety precautions and safe practices according to industry standards and required by MSHA regulations and State regulatory agencies having jurisdiction over the plugging site shall be followed to provide the upmost protection to the miners involved in the process.

(i) All miners involved in the plugging or re-plugging operations shall be trained on the contents of the PDO prior to starting the process. A copy of the PDO shall be posted at the well site until the plugging or re-plugging has been completed.

(j) Mechanical bridge plugs shall incorporate the best available technologies that are either required or recognized by the State regulatory agency and/or oil and gas industry.

(k) Within 30 days after the PDO becomes final, the mine operator shall submit proposed revisions for its approved 30 CFR part 48 training plan to the District Manager. These proposed revisions shall include initial and refresher training on compliance with the terms and conditions stated in the PDO. The mine operator shall provide all miners involved in well intersection with training on the requirements of the PDO prior to mining within 150 feet of the well intended to be mined through.

(l) The responsible person required under 30 CFR 75.150, shall be responsible for well intersection emergencies. The well intersection procedures shall be reviewed by the responsible person prior to any planned intersection.

(m) Within 30 days after the PDO becomes final, the mine operator shall submit proposed revisions for its approved mine emergency evacuation and firefighting program of instruction required under 30 CFR 75.1502. The mine operator shall revise the program of instruction to include the hazards and evacuation procedures to be used for well intersections. All underground miners shall be trained in this revised plan within 30 days of submittal.

In support of the Petition, the petitioner provided additional

information including: a map showing the cutting, milling, perforating, or ripping well casing above and below the Pittsburgh #8 coal seam; a proposed permanent plugging schematic for a gas well; mine information including construction details, pressures, production history, site-specific geology, gas-producing formations locations, and relevant logging information; surface location well plat; mine map with gas well location; and well record and competition report for Jones 2H and 3H gas wells.

The petitioner asserts that the alternate method proposed will at all times guarantee no less than the same measure of protection afforded the miners under the mandatory standard.

**Song-ae Aromie Noe,**

*Director, Office of Standards, Regulations, and Variances.*

[FR Doc. 2023-07864 Filed 4-13-23; 8:45 am]

**BILLING CODE 4520-43-P**

## NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

[NOTICE: (23-032)]

### Lunabotics Challenge

**AGENCY:** National Aeronautics and Space Administration (NASA).

**ACTION:** Lunabotics Challenge.

**SUMMARY:** The Lunabotics Challenge (one of NASA's Artemis Student Challenges, <https://stem.nasa.gov/artemis/>) has provided college students from around the country an opportunity to engage and learn the NASA Systems Engineering process by designing and building robotic Lunar excavators capable of mining regolith and icy regolith simulants.

**DATES:** Challenge registration opened on September 14, 2022 and closed on October 19, 2022. No further requests for registration will be accepted after the stated deadline.

Other important dates, including deadlines for key deliverables from the Teams, are listed on the Challenge website: <https://www.nasa.gov/offices/education/centers/kennedy/technology/nasarmc.html>.

**FOR FURTHER INFORMATION CONTACT:** To get additional information regarding the Lunabotics Challenge, please contact Rich Johanboeke (321) 867-0586 and visit: <https://www.nasa.gov/offices/education/centers/kennedy/technology/nasarmc.html>.

Questions and comments regarding the challenge should be addressed to: [ksc-robotic-mining-competition@mail.nasa.gov](mailto:ksc-robotic-mining-competition@mail.nasa.gov).

### SUPPLEMENTARY INFORMATION:

#### Summary

The Lunar robot shall drive in a simulated Lunar arena filled with Black Point -1 regolith simulant and excavate the icy-regolith simulant buried under an overburden of granular material, then return to the starting site and deliver the granular material to a simulated receiving hopper. More details are provided in Lunabotics Guidebook. This is a two-semester, virtual challenge, designed to educate college students in the application of the NASA Systems Engineering process. The virtual events of the Challenge are as follows: 1. Project Management Plan, 2. Systems Engineering Paper, 3. Public Outreach Report, 4. Presentation and Demonstration (optional), and a 5. Proof of Life Video. NASA is providing the prize purse.

For more than a decade, NASA has been able to gather valuable data about necessary excavation hardware and surface locomotion processes that can be implemented as the agency prepares to return to the Moon through the Artemis program. Major gaps exist between the functional capabilities and the technologies necessary for Lunar surface construction, and the requirements needed to narrow these gaps are in development and will support the long-term presence on the Moon, also known as "Infrastructure to Stay". Once identified, NASA will seek input from American academia to find new and innovative ways to apply existing or develop new technologies to meet Artemis Program requirements.

The skills developed in Lunabotics apply to other high technology industries that rely on the systems engineering principles. These industries will create a workforce posed to lead a new space-based economy and add to the economic strength of our country. NASA directly benefits from this challenge by annually assessing student designs and data the same way it does for its own, less frequent, prototypes. Encouraging innovation in student designs increases the potential of identifying clever solutions to the many challenges inherent in future Artemis missions.

#### Accreditation Board for Engineering and Technology (ABET)

One of the goals of Lunabotics is to introduce students to the ABET experience by aligning the events to those student outcomes. ABET is a nonprofit, ISO 9001 certified organization that accredits college and university programs in applied and natural science, computing, engineering,

and engineering technology. ABET accredits college and university programs in the disciplines of applied and natural science, computing, engineering, and engineering technology at the associate, bachelor's, and master's degree levels. ABET is the basis of quality for STEM disciplines all over the world. Schools do not have to be ABET accredited to participate.

### STEM Engagement

NASA's journeys have propelled technological breakthroughs, pushed the frontiers of scientific research, and expanded our understanding of the universe. These accomplishments, and those to come, share a common genesis: education in science, technology, engineering, and math. In NASA STEM Engagement, we deliver tools for students and educators to learn and succeed. We seek to: Create unique opportunities for a diverse set of students to contribute to NASA's work in exploration and discovery; Build a diverse future STEM workforce by engaging students in authentic learning experiences with NASA's people, content, and facilities, and attract diverse groups of students to STEM through learning opportunities that spark interest and provide connections to NASA's mission and work. NASA STEM Engagement strives to increase K–12 involvement in NASA projects, enhance higher education, support underrepresented communities, strengthen online education, and boost NASA's contribution to informal education. The intended outcome is a generation.

### I. Prize Amounts

Lunabotics has a total prize purse of \$28,000.00 USD, (twenty-eight thousand United States dollars). There are three categories for awards in which teams can place 1st, 2nd or 3rd Place. Teams must meet the eligibility requirements to receive a prize from NASA.

### II. Eligibility To Participate and Win Prize Money

To be eligible to win a prize, competitors must register and comply with all requirements in the Lunabotics guidebook. Interested Teams should refer to the official Lunabotics website (<https://www.nasa.gov/offices/education/centers/kennedy/technology/nasarmc.html>) for full details on eligibility and registration.

### III. Official Rules

The complete official rules for the Lunabotics can be found at: <https://www.nasa.gov/offices/education/>

[centers/kennedy/technology/nasarmc.html](https://www.nasa.gov/offices/education/centers/kennedy/technology/nasarmc.html).

**Cheryl Parker,**

*Federal Register Liaison Officer.*

[FR Doc. 2023–07972 Filed 4–13–23; 8:45 am]

**BILLING CODE 7510–13–P**

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## NATIONAL SCIENCE FOUNDATION

### Sunshine Act Meetings

The National Science Board's (NSB) Committee on Science and Engineering Policy (SEP) hereby gives notice of the scheduling of a videoconference for the transaction of National Science Board business pursuant to the National Science Foundation Act and the Government in the Sunshine Act.

**TIME AND DATE:** Thursday, April 20, 2023, from 1 p.m.–2 p.m. EDT.

**PLACE:** The meeting will be held by videoconference through the National Science Foundation.

**STATUS:** Open.

**MATTERS TO BE CONSIDERED:** Chair's opening remarks; Detailed Narrative Outline for *Indicators* report: *Science and Technology: Public Perceptions, Awareness, and Information Sources*; Discussion of potential SEP/NSB contributions to OSTP Quadrennial Review.

**CONTACT PERSON FOR MORE INFORMATION:** Point of contact for this meeting is Chris Blair, [cblair@nsf.gov](mailto:cblair@nsf.gov), 703/292–7000. Members of the public can observe this meeting through a YouTube livestream. The YouTube link will be available from the NSB meetings web page—<https://www.nsf.gov/nsb/meetings/index.jsp>.

**Christopher Blair,**

*Executive Assistant to the National Science Board Office.*

[FR Doc. 2023–08088 Filed 4–12–23; 4:15 pm]

**BILLING CODE 7555–01–P**

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## NATIONAL SCIENCE FOUNDATION

### Sunshine Act Meetings

The National Science Board's (NSB) NSB–NSF Commission on Merit Review hereby gives notice of the scheduling of a videoconference meeting for the transaction of National Science Board business pursuant to the National Science Foundation Act and the Government in the Sunshine Act.

**TIME AND DATE:** Wednesday, April 19, 2023, from 3–4 p.m. EDT.

**PLACE:** This meeting will be held by videoconference through the National Science Foundation.

**STATUS:** Open.

**MATTERS TO BE CONSIDERED:** The agenda of the meeting is: Chair's opening remarks; discussion of Commission workplan; discussion of potential topical areas of inquiry.

**CONTACT PERSON FOR MORE INFORMATION:** Point of contact for this meeting is: (Chris Blair, [cblair@nsf.gov](mailto:cblair@nsf.gov)), 703/292–7000. Members of the public can observe this meeting through a YouTube livestream. The YouTube link will be available from the NSB meetings web page—<https://www.nsf.gov/nsb/meetings/index.jsp>.

**Christopher Blair,**

*Executive Assistant to the National Science Board Office.*

[FR Doc. 2023–08077 Filed 4–12–23; 4:15 pm]

**BILLING CODE 7555–01–P**

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## NATIONAL SCIENCE FOUNDATION

### Sunshine Act Meetings

The National Science Board's (NSB) Committee on External Engagement hereby gives notice of the scheduling of a teleconference for the transaction of National Science Board business pursuant to the National Science Foundation Act and the Government in the Sunshine Act.

**TIME AND DATE:** Friday, April 21, 2023, from 11 a.m.–12 p.m. EDT.

**PLACE:** This meeting will be held by teleconference through the National Science Foundation.

**STATUS:** Open.

**MATTERS TO BE CONSIDERED:** The agenda of the teleconference is: Chair's opening remarks; Strategic Engagement Planning; Discuss draft *Science & Engineering Indicators* Engagement Plan.

**CONTACT PERSON FOR MORE INFORMATION:** Point of contact for this meeting is: Nadine Lymn, [nlymn@nsf.gov](mailto:nlymn@nsf.gov), 703/292–7000. Members of the public can observe this meeting through a YouTube livestream. Meeting information including a YouTube link is available from the NSB website at <https://www.nsf.gov/nsb/meetings/index.jsp#up>.

**Christopher Blair,**

*Executive Assistant to the National Science Board Office.*

[FR Doc. 2023–08084 Filed 4–12–23; 4:15 pm]

**BILLING CODE 7555–01–P**

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## NATIONAL SCIENCE FOUNDATION

### Agency Information Collection Activities: Comment Request

**AGENCY:** National Science Foundation.