Lightning Advisory Panel Statement of Work

1. **Objective:** The Lightning Advisory Panel (LAP) defines and recommends the Lightning Launch Commit Criteria (LLCC), and associated rationale, to try to assure reduced risk to launch vehicles by triggered lightning or intercepting natural lightning. The LLCC support NASA, Department of Defense (DoD), and Federal Aviation Administration (FAA) launches in the United States to assure safety and, to the maximum extent possible, provide launch availability.

2. **Qualifications:** The LAP are world-recognized experts on atmospheric electricity and other fields (i.e., lightning physics, radar meteorology, cloud physics, and statistics). Panel members must hold an earned PhD from an accredited institution in one of the above, or a closely related Science, Technology, Engineering, and Mathematics (STEM) discipline. Members also produce highly impactful, peer-reviewed published research in leading academic and industry journals. While not strictly required, qualifications may be enhanced by public recognition for scientific achievements, experience as a journal peer reviewer, or professional memberships in scientific committees.

3. **Scope:** As a member of the LAP, the individual shall support LAP activities for the contracted period of performance to include the following:

Task 1 (price separately from other tasks):

- Performed over a 1-year period
- Attendance at one ~3-day face-to-face or virtual meeting at Kennedy Space Center, Florida, is required and tentatively scheduled for Spring/Summer 2027
- Attend 12-22 teleconferences (approximately 1.5-hours each)
- Participate in at least one, preferably two, LAP sub-committees that are focused on addressing assigned action items (e.g., LLCC development, modification, and data collection). This includes, but is not limited to, being the sub-committee lead that is focused on the electric field mill use and specification memo, rationale for electric field mill measurement rule change, and assisting with Airborne Field Mill rule development.
- Prior to the meetings:
  - Prepare to report on action items
  - Review worldwide lightning research as relevant to updating the LLCC
- At meetings:
  - Participate in LAP discussions to modify existing LLCC and associated rationale with the overall objective to improve operational effectiveness, assure safety and increase launch availability
  - Provide guidance using expertise derived from research in which the entity is involved as well as studies of existing literature
- Post meetings complete action items:
  - LLCC review, editing, and analyses, and/or
  - LLCC-related research review, and/or

- Document formal recommendations including but not limited to research, instrumentation, and forecast tool development to improve operational effectiveness, assure safety and increase launch availability

<u>Task 2 (price separately from other tasks):</u>

- Travel expenses for one ~3-day face-to-face meeting at Kennedy Space Center, Florida, tentatively scheduled for Spring/Summer 2027

4. **Deliverables:** Prior to completion of the year's activities, provide Required Deliverable Documents (RDDs) for the period of performance which consists of the following:

   - Description of contributions (e.g., LLCC review and editing, analysis or research performed, participation in working meetings and LAP sub-committees), which includes a brief explanation (approximately a paragraph) of the activity and how it is utilized toward LLCC development and documentation of rationale. For any work as a sub-committee lead, this should also include related documentation that summarizes findings and potential LLCC wording updates (e.g., copy of memo).
   - Documentation of analyses not included in the LLCC, rationale or other published research
   - Provide an updated curriculum vitae 6-months after date of award

5. **Period of Performance:** One year from the date of award