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Competition Guidelines

These Competition Guidelines summarize the high-level requirements and rules of the Competition.

I. COMPETITION OVERVIEW

Ocean exploration technologies today—from human divers to satellites, and relatively simple buoys to the most sophisticated Remotely Operated Vehicles (ROVs) and Autonomous Underwater Vehicles (AUVs)—cannot scale to gather the detailed data and information necessary to understand and leverage our ocean resources in sustainable ways. Moreover, it is a significant challenge to inspire new innovation, investment, and discovery with only a limited understanding of the ocean's potential.

The Shell Ocean Discovery XPRIZE will address these challenges by incentivizing platforms for ocean exploration that can demonstrate the combination of capabilities critical to expanding discovery of the world's oceans: improved autonomy, faster speeds, and the ability to explore at significant depths. To demonstrate these capabilities, teams will have a limited period of time for exploring an area of the ocean and producing: (1) a map of the ocean floor, which is essential for establishing a baseline understanding of the oceans; and (2) images of biological, archaeological, and geological features of the ocean environment, which are critical to understanding the oceans and will help inspire the next generation of educators, students, policymakers, and investors to care about ocean discovery, resource development, and protection.

Eligible teams may opt to compete for an additional National Oceanic and Atmospheric Administration (NOAA) Bonus Prize which will incentivize the development of technologies to detect the source of chemical and biological signals underwater. The main competition challenges teams to explore the oceans by mapping the seafloor and capturing images of features and life in the undersea environment. The NOAA bonus prize will complement these goals by incentivizing a related capability: detecting and locating anomalies in the water column that indicate the presence of ocean life or another significant feature of the ocean environment.

II. PRIZES

GRAND PRIZE. A Grand Prize in the amount of $5,000,000 will be awarded to the two (2) Teams whose Entries receive the highest scores for high resolution sea-floor mapping and high definition imagery after the final Round of testing (Round 2) according to the Judging Criteria (Table 2). The First Place Team will receive $4,000,000 and the Second Place Team will receive $1,000,000. If there is no Second Place Team, the First Place Team will be awarded the entire $5,000,000 Grand Prize.

MILESTONE PRIZE. A Milestone Prize in the amount of $1,000,000 will be shared equally between up to ten (10) Teams whose Entries receive the highest scores for high resolution sea-floor mapping and high definition imagery after the first Round of testing (Round 1), according to the Judging Criteria (Table 2).

NOAA BONUS PRIZE. A Bonus Prize in the amount of $1,000,000 will be awarded to one or more eligible Teams in Round 1 whose entries successfully detect a specified object or feature of the ocean environment by tracking its biological or chemical signature to its source. If no teams from Round 1 win the Bonus Prize, eligible teams with promising technologies may be invited to compete for this Prize in Round 2. The NOAA Bonus Prize is subject to the America Creating Opportunities to Promote Excellence in Technology, Education, and Science Act of 2007 ("America COMPETES Act"). Pursuant to the America COMPETES Act, only Teams that: (a) are companies domiciled in the United States of America; or (b) are comprised solely of a single (or multiple) United States citizen(s), shall be eligible to compete for and/or win any portion of the NOAA Bonus Prize.

III. COMPETITION STRUCTURE

OVERVIEW

The competition will take place in two (2) rounds over 36 months (3 years). Teams must register by the deadline in order to compete.

Two months after the final registration deadline each team will submit technical documentation detailing their approach and Entry technologies therefore, XPRIZE encourages teams to begin designing their technologies at the earliest opportunity. The technical documentation will be judged and the top 25 teams will be invited to participate in Round 1 testing. Details of the requirements for the Technical Documentation will be in the Rules and Regulations.

Table 1: Competition Calendar

14th December 2015	Launch (San Francisco)
14th December 2015	Team Registration Opens,
14th December 2015	Draft Competition Guidelines Available for Public Comment
31st January 2016	Competition Guidelines Public Comment closes
25th April 2016	Final Competition Guidelines released
1st June 2016	Rules and Regulations released
30th June 2016	Regular Registration deadline
30th September 2016	Late Registration deadline
October 2016	Round 1 Begins
November 2016	Judges and Team Summit
December 2016	Deadline for Technical Document Submission
February 2017	Teams eligible for Round 1 Testing Announced
August – September 2017	Round 1 Testing
December 2017	Round 1 Results Announced
January 2018	Round 2 Begins
September 2018	Round 2 Testing
December 2018	Award Ceremony

***Note**: The above dates are subject to change pursuant to the Competitors Agreement.*

Deep-Sea Tests will be conducted during both Round 1 and Round 2. In Round 1, teams must prove they can map the sea floor at a depth of 2,000 meters. In Round 2, teams must prove they can map the sea floor at a depth of 4,000 meters. The test locations for each Round will be released to competing registered teams by XPRIZE at a date prior to testing.

During the testing for each Round, XPRIZE will designate a Competition Area comprising a 500 square kilometer (km^2) area of the ocean and reaching from the sea floor through the water column to the surface, and from the surface to the maximum altitude at which unmanned aerial vehicles are allowed to operate under existing regulations at the time of and in the region of the competition. XPRIZE will inform Teams of the maximum altitude in the vicinity of the Competition Area shortly prior to testing. Teams will deploy their competition Entries from a shore location close to the designated Competition Area. Transit time between the launch point and the Competition Area will not be counted against the time limit for testing. Unless

otherwise stated, Teams may not use the transit period for tasks or operations other than movement to the Competition Area.

For each Round, Teams will submit a bathymetric map, a high-definition image of a specified feature, and up to 50 high-definition images of archeological, biological, or geological features for judging (see Judging Criteria below).

Teams opting to compete in the NOAA Bonus Prize will successfully detect a chemical or biological signal and track it to its source. The nature of the source will be defined in the Rules and Regulations.

During the test, teams may deploy multiple systems, vehicles, and other technologies, but all components used for data gathering must fit within a standard intermodal shipping container with measurements of 2.44 m (8 feet) wide by 2.59 m (8 feet 6 inches) high, and 12.19 m (40 feet) long. More details on container constraints will be provided in the Rules and Regulations. Teams may not have any humans within the Competition Area. However, Teams may employ humans on shore for:

- Assembly and maintenance of Entry in preparation for testing;
- Technology launch and recovery;
- Remote-controlled operations and/or supervision of autonomous operations;
- Recharging, swapping, or refilling power sources;
- Receiving data transmissions; and
- Other necessary activities approved by XPRIZE.

Once the Entry has been deployed and reaches the Competition Area, the clock will start. The clock will not be stopped if the Entry leaves the Competition Area for any reason, including returning to shore to refill or recharge a power source.

There will be no physical connection between humans on shore and the Competition Area. While the Entries must function without a physical link to operators, untethered "connectivity" between the shore and the systems are welcome.

Throughout the competition, except during testing, teams are welcome to continue to develop, iterate, and adapt their entries.

ENVIRONMENT AND SAFETY

To minimize the impact of the competition on the ocean environment, to encourage solutions that will minimize environmental harm when commercialized, and to ensure safety of participants and surrounding communities all teams must comply with the following requirements:

- The competition and teams will comply with existing environmental, health, and safety regulations.
- Teams must design their systems to avoid impact on marine life. Any emission of acoustic, electro-magnetic, laser, optical or other energy must be compliant with regulation and best practices for the Competition Area.
- Teams may not use nuclear reactor power sources or in any way allow emission of chemical or biological pollutants.
- Teams may not employ, influence or harm marine life in their approaches to the challenge.
- Teams must recover equipment that is deployed within the Competition Area. Any disposable portions of the system must be declared prior to deployment in the Competition Area.
- Teams must research, and obtain, any necessary permits for operation in the Competition Area. XPRIZE will collaborate with teams in this activity.

Additional details on Environment and Safety will be provided in the Rules and Regulations. XPRIZE reserves the right to adjust the Competition Guidelines or Rules and Regulations based on the latest scientific and legal information available at the time to ensure personal and environmental safety.

IV. JUDGING CRITERIA

In order to be eligible for a prize, teams must meet or exceed all Minimum Requirements summarized in Table 2. Teams will be scored based on performance above the Minimum Requirements as described in the Scoring Methodology.

In each round, teams must submit three items:

- Bathymetric map of the Competition Area;
- One image of an XPRIZE-specified item at the required depth; and
- Minimum number of images of additional features in the Competition Area

Teams who have opted to compete for the NOAA Bonus Prize must submit information on the location of the source of the chemical or biological signal after Round 1 in order to win.

TABLE 2. Summary of Judging Criteria

Judging Criteria	Round 1 (2000m depth) Minimum Requirements	Round 2 (4000m depth) Minimum Requirements
Area Mapped	20% of Competition Area (100 km^2)	50% of Competition Area (250 km^2)
Resolution	5.0 meters horizontal 0.5 meter vertical	5.0 meters horizontal 0.5 meter vertical
Bathymetric Map Accuracy	Pass/Fail vs Statistical Accuracy relative to Baseline Map	Pass/Fail vs Statistical Accuracy relative to Baseline Map
Depth	Find and image 1 specifically named item at 2,000 meters	Find and image 1 specifically named item at 4,000 meters
Additional Features	Identify and image 5 archeological/biological/ geological features at any depth	Identify and image 10 archeological/biological/ geological features at any depth
Chemical/Biological Signal	Pass/Fail vs. Detection of Signal and Location of Known Feature	Pass/Fail vs. Location of Known Feature

CRITERIA

The maximum time limit for data collection within the Competition Area for Round 1 is 16 hours and for Round 2 is 24 hours. Only data collected within this time limit will be allowed. Transit to/from the Competition Area is not included in this limit. Final scoring is intended to incentivize the completion of data collection faster than these time limits. Additional details on scoring will be in the Rules and Regulations.

- **AREA MAPPED:** Bathymetric maps present an accurate and measurable description and visual representation of the submerged terrain. Teams must produce a bathymetric map for a minimum portion of the Competition Area. XPRIZE may require that one or more specified area(s) of the Competition Area are included in each team's map. Teams will earn additional points by mapping a larger portion of the Competition Area, as described in the Scoring Methodology (see below).

- **RESOLUTION:** The bathymetric map must be at a minimum horizontal resolution of 5.0 meters (x and y coordinates) and a minimum vertical resolution of 0.5 meter

(z coordinate). Teams will earn additional points by mapping at higher resolutions, as described in the Scoring Methodology (see below).

- **BATHYMETRIC MAP ACCURACY:** The bathymetric map produced by teams must accurately reflect known information about the Competition Area. XPRIZE will obtain and/or develop a baseline map of the Competition Area. The baseline map will be used by the Judging Panel to make a pass/fail determination of the accuracy of each team's map. The baseline map will not be shared with any competitors and will be kept strictly confidential. The criteria used to judge the pass/fail criteria of the bathymetric map will be provided in the Rules and Regulations. The bathymetric map is expected to include one or more of the following:
    - Multiple areas within the Competition Area;
    - Multiple depths within the Competition Area;
    - Multiple known features within the Competition Area; and
    - Other criteria determined by the Judging Panel.

- **DEPTH**: To prove their technologies can operate at a specific depth, Teams will be required to identify and image an object specified by XPRIZE in the Competition Area at a known depth. The XPRIZE specified object will be in a subsection of the Competition Area. This subsection of the Competition Area will be given to competing registered Teams by XPRIZE at a date prior to testing. In Round 1, teams must identify and image one (1) item at an approximate depth of 2,000 meters. In Round 2, teams must identify and image one (1) item at an approximate depth of 4,000 m. Teams must also provide a map surrounding the object.

ADDITIONAL FEATURES: Teams must provide images of features of the ocean environment. There are no specific restrictions on the format of eligible image types. The Judging Panel will determine the eligibility of all image submissions. The intent of the high-resolution imagery is to be inspirational as described on page 1 of these Guidelines. The Judges will score all images with this intent and so that any particular feature can be visually identified by the general public as that feature. The features need to be easily identified from these images (e.g. photographs, video, VR, other).

Eligible features will include:

- Biological features such as mobile animals or large biological structures.
- Geologic formations of the ocean floor such as seamounts or volcanoes.
- Archeological features such as shipwrecks or other man-made artifacts.

CHEMICAL/BIOLOGICAL SIGNAL: Details of the nature of the biological or non-toxic chemical signal(s) will be given in the Rules and Regulations. Examples of the potential source of these signals may include deep-sea coral, hydrothermal vent, or a simulated biological entity, such as a simulated whale fall with whale "scent".

The NOAA Bonus Prize is intended to encourage autonomous underwater tracking capabilities. The known source(s) will be in the Competition Area, however teams will not know the location of the source(s). Teams must detect the source(s) by providing data analyzing the signal and the source(s) and identifying its location.

FORMATS

BATHYMETRIC MAP FORMAT: To ensure ease of judging the bathymetric map produced by teams will be expected to comply with specific standards which XPRIZE will provide to teams who enter Round 1. The standards will be derived from and/or align with, common industry standards in undersea map data formats. Teams will be expected to document the digital processing approaches used to produce maps in the final required format and be prepared to address any questions from the Judging Panel.

V. SCORING METHODOLOGY

Teams that meet or exceed all Minimum Requirements will receive a score. The total score for the Milestone Prize and the Grand Prize will be comprised of two components:

- Mapping Score (weighted as the greater portion of the total score); and
- Features Score (weighted as the lower portion of the total score).

The intent of this Scoring Methodology is to incentivize teams to demonstrate a truly multi-functional platform for ocean exploration. Mapping often involves collecting multiple data sets, and imagery can both help confirm geologic features of the sea floor and provide insight into additional features of the ocean environment. These judging criteria, and their scoring, are intended to ensure that a winning platform will be flexible enough to gather a variety of data and imagery when deployed commercially.

Teams best positioned to win will maximize performance on both mapping and identifying/imaging significant features of the ocean environment. As such, a team that maps a large area but only identifies a minimal number of features is unlikely

to win. Similarly, a team that maps a minimal area but identifies a very large number of features is also unlikely to win.

Mapping Score

Teams will receive a Mapping Score based on the bathymetric map submitted. The Mapping Score will focus on two factors:

- The area mapped above the minimum requirement. This will be calculated based on the total area mapped by a team minus the minimum required.
- The average resolution of the area mapped above the minimum requirement.

Additional details and examples of how scores will be calculated will be provided in the Rules and Regulations

Features Score

Teams will receive a Features Score based on the number and quality of unique features imaged. Teams may only submit one image for each feature. Teams may submit up to 50 images for judging.

Teams must image features of the ocean environment. Eligible categories of features include:

- Biological features such as mobile animals or large biological structures.
- Geologic formations of the ocean floor such as seamounts or volcanoes.
- Archeological features such as shipwrecks or other man-made artifacts.

In Round 1, teams must image at least five (5) features. In Round 2, teams must image at least ten (10) features. Features may be at any depth within the Competition Area. Each team may submit up to a maximum of fifty (50) images.

Images will be judged as described in the Rules and Regulations including scoring for different categories. Additional details and examples of how scores will be calculated and the scoring impact of ratings will be provided in the final Rules and Regulations.

In the event of a tie-breaker, Judges will score the speed of completion of these tasks to determine the winner.

NOAA Bonus Prize Scoring

All Teams that opt to compete for the NOAA Bonus Prize will receive a score. The total score for the Bonus Prize will be based on two components:

- Detection of Signal; and
- Location of Source.

The intent of this scoring methodology is to incentivize autonomous search capabilities. Additional details of scoring will be in the Rules and Regulations.

VI. COMPETITION PHASES

REGISTRATION

Following the prize launch, teams will have six (6) months for Regular Registration, and an additional three (3) months for Late Registration. Registration requires a team to sign the Competitors Agreement and pay a registration fee. Teams must complete the registration process by the Registration Deadline as provided in the Competition Calendar (Table 1). The registration fee for teams who register by the Regular Registration deadline of 30 June, 2016, is $2000. The registration fee for teams who register by the Late Registration Deadline of 30 September, 2016, is $5000.

ROUND 1: QUALIFYING ROUND

In Round 1, teams will demonstrate a multi-functional platform for ocean exploration in an area including a depth of 2,000 meters. The Qualifying Round entails:

Entry Submission Documents

Following Registration, in December 2016, teams will submit Entry Submission Documents (15 pages max) describing their Entry, approach for data gathering and how they will achieve the Minimum Requirements in Round 1, and other technical details. The document will be used by the Judging Panel to determine the teams who will move forward to Round 1 testing. The document is also intended to inform XPRIZE and the Judging Panel about potential operational requirements or risks related to the Competition Area and judging. In the event that more than twenty-five (25) teams register to compete, the Judges will down-select based on these documents.

Team Summit

Prior to the document submission deadline, teams will be required to attend a Team Summit (November 2016) where they will have an opportunity to interact and collaborate with each other, meet the judges, members of the Scientific Advisory Board, as well as other stakeholders. This should be viewed as a preliminary design review (PDR) opportunity and teams should plan accordingly. The PDR demonstrates that the team's Entry design meets system requirements with acceptable risk and within

the rules of the competition. It should show design options selected, interfaces that have been identified, and verification methods to be used. The specific date and location and details of the Team Summit will be provided to teams in advance of the event.

Testing

In August and September 2017, the (up to) top 25 teams will convene at the competition set-up location to demonstrate their systems. Teams will have access to the competition location prior to their first deployment. During this preparation time, teams will have access to a pre-assigned workspace and a section of ocean designated as a practice area. XPRIZE will determine the sequence of deployments. Each team will have access to a designated 500 km^2 Competition Area for up to 16 hours. Teams may also have additional time for transit from the shore location to the Competition Area. The exact time periods for data gathering and transit (if any) will be determined prior to launch by XPRIZE.

Only one team will have access to the Competition Area at a time, unless XPRIZE determines an approach to allow multiple teams in the Competition Area at the same time while maintaining safety and fairness for all teams. Following the Round 1 testing the Judging Panel will review and discuss the results and create a final ranking for teams. Up to the top ten teams will move on to Round 2

Competition Area

The Competition Area will be an area clearly demarcated using geodetic coordinates comprising a 500 square kilometer (km^2) area of the ocean and reaching from the sea floor through the water column, and from the surface to the maximum altitude for flying unmanned aerial vehicles under existing regulations (for example, in the U.S., the Federal Aviation Authority regulations are 120m (400ft) for unmanned aerial vehicles). Teams will be allowed to have equipment in the ocean, at the surface, or in the air up to the maximum altitude.

The general location for Round 1 will be announced in advance of the competition, so that teams may make travel arrangements. However, the exact location of the Competition Area will not be announced until a few days prior to the competition. The Competition Area will be close to a shore location with a designated starting line from which teams will deploy their technologies. The Competition Area will be a location:

- For which baseline map data is available or can be created;
- That includes one or more known features of interest; and
- That minimizes regulatory hurdles and known environmental, health, and safety challenges.

The Competition Area location will be provided to registered Teams prior to Round 1 testing.

Competition Stages

The three stages of competition will be:

1. Exploration and Discovery Stage: Each Team will have an Exploration and Discovery Period in which they will have access to the Competition Area for up to 16 hours for gathering data. XPRIZE will seek to hold testing primarily during daylight hours when possible and when weather conditions (including winds, cloud cover, and wave height) are within a specified range, but are expected to be commensurate with typical operating conditions allowed for current offshore operations. The Exploration and Discovery Stage is expected to last up to a total of six to eight (6-8) weeks, with teams deploying sequentially during this time. All Teams are not required to be present for this entire Stage. After each team's Exploration and Discovery Period expires, there will be a brief period of time for recovery of vehicles and equipment. Teams may not leave vehicles or other equipment in Competition Area unless they have declared what remains in the area and prior permits have been obtained. The competition intends to incentivize autonomous vehicles that can achieve recovery without the use of a human-operated vessel, returning to a shore launch point. In the event of an accidental loss at sea requiring recovery using a human-operated vessel, a team's overall score will be reduced by 20% percent. Inability to recover the vessel within a reasonable timeframe will be penalized by the Judges at their discretion. Unless otherwise stated, Teams will be responsible for recovery of any vehicle lost at sea.

2. Data Processing: Each team will have up to 48 hours following their Exploration and Discovery Period for Data Processing and delivering their Results to XPRIZE. Teams will be responsible for processing data. Autonomous or manual data processing is permitted within the allotted time. Teams may also transmit and process data during the Exploration and Discovery Period if they have that capability. XPRIZE and the Judges may observe data processing. All data will be expected to meet the XPRIZE defined format requirements and teams must be prepared to document and describe their data processing for the Judging Panel.

3. Discovery Results: Teams will deliver results to XPRIZE within 48 hours following their Exploration and Discovery Period. Results must include the following:

- Bathymetric map of the Competition Area, including the raw data and processing methodology used to create it;
- One (1) image of an XPRIZE-specified item at the required depth; and

- Five (5) images of five (5) additional features in the Competition Area.

MILESTONE PRIZE AWARD

The $1 million milestone purse will be split evenly among up to ten (10) finalists after Round 1. Awarding of the Milestone Prize Purse will take place as soon as possible following announcement of the finalists. Finalists will be selected by the Judging Panel in accordance with these Competition Guidelines and the Rules and Regulations

NOAA BONUS PRIZE AWARD

Team who opt to participate in the NOAA Bonus Prize will be required to submit data in accordance with the Rules and Regulations. The winning team will be informed after Round 1. If the Judging Panel determines that there are no winners after Round 1, teams with the most promising technologies will be invited to participate to compete for the Bonus Prize in Round 2.

ROUND 2: FINAL ROUND

Round 2 will include the same stages as Round 1 including: Entry Submission Documents, Team Summit, Testing, and Competition Stages. However, in Round 2, teams will demonstrate a multi-functional platform for ocean exploration at a depth of 4,000 meters. Each team will have access to a different designated 500 km^2 Competition Area (different from Round 1), for up to 24 hours (the Exploration and Discovery Period). As per Round 1, Teams may also have additional time for transit from the shore location to an area within the Competition Area at significant depths. In addition to the increased depth, teams will face higher minimum requirements including 50% of the area mapped (250 km^2) and imaging of at least 10 additional features.

FINAL JUDGING

Following the Discovery Results deadline of Round 2, the Judging Panel will convene to review the submissions and discuss the results. The Judging Panel will award points and create a final ranking for teams. Any submission that does not meet the Minimum Requirements will be eliminated.

AWARDS CEREMONY

Following the final judging, an awards ceremony will take place, at which the winner(s) will be announced and the Grand Prize will be awarded. The 1st place team will be awarded a $4 million prize; the 2nd place team will be awarded a $1 million prize. The NOAA Bonus Prize will also be awarded at this time.

VII. ROLES AND RESPONSIBILITIES

SCIENTIFIC ADVISORY BOARD

A. SELECTION OF ADVISORS. XPRIZE will form a panel of relevant subject matter and technical experts to serve as the "Scientific Advisory Board" (SAB) for the Competition. The SAB will remain in place throughout the Competition to advise XPRIZE regarding the scientific elements of the Competition.

B. INDEPENDENT SCIENTIFIC ADVISORY BOARD. The SAB will be independent of XPRIZE and all teams and team members. No Advisor, nor any member of the Advisor's immediate family, shall participate, nor have any financial or other material interest, in XPRIZE or any team or team member. All members of the SAB shall promptly disclose to XPRIZE any such current, former, or expected future conflict of interest with XPRIZE or any team or team member.

C. ROLE OF SCIENTIFIC ADVISORY BOARD. The duties and responsibilities of the SAB may include, but not be limited to: (i) assisting with the establishment of qualifications for prospective Judges; (ii) recommending members of the Judging Panel; (iii) assisting with development of testing protocols and judging criteria; (iv) and providing input toward the development of these Competition Guidelines.

JUDGING PANEL

A. SELECTION OF JUDGES. The "Judging Panel" (as defined in the Competitors Agreement) will be comprised of highly qualified and impartial Judges. XPRIZE, in its sole and absolute discretion, will recommend Judging Panel candidates to the SAB for its review and consideration. The SAB will select the candidates it believes are best suited to serve on the Judging Panel.

B. INDEPENDENT JUDGING PANEL. The Judging Panel will be independent of XPRIZE, the Title Sponsor, and all teams and team members. No Judge, nor any member of Judge's immediate family, shall participate, nor have any financial or other material interest, in XPRIZE, the Title Sponsor, and/or any team or team member. All members of the Judging Panel shall promptly disclose to XPRIZE any such current, former, or expected future conflict of interest with XPRIZE, the Title Sponsor, and/or any team or team member.

C. ROLE OF JUDGING PANEL. The duties and responsibilities of the Judging Panel will include, but not be limited to: (i) evaluating teams' compliance with the Competitors Agreement, these Competition Guidelines, and the Rules and

Regulations for the purposes of the Competition; and (ii) the awarding of points and selection of teams that will proceed to each subsequent round of the competition.

D. GROUNDS FOR JUDGING PANEL DECISIONS. Official decisions made by the Judging Panel will be approved by a majority of the Judges that vote on each such decision after careful consideration of the testing protocols, procedures, guidelines, rules, regulations, criteria, results, and scores set forth in the Competitors Agreement, these Competition Guidelines, Rules and Regulations, and all other applicable Exhibits to the Competitors Agreement. If any vote of the Judges results in a tie, then the Judging Panel shall determine, in its sole and absolute discretion, the mechanism to settle the tie. Similarly, if one or more teams are tied at any stage during the competition, the Judging Panel shall have the sole and absolute discretion to settle the tie.

E. DECISIONS OF JUDGING PANEL ARE FINAL. The Judging Panel shall have sole and absolute discretion: (i) to allocate duties among the Judges; (ii) to determine the degree of accuracy and error rate that is acceptable to the Judging Panel for all competition calculations, measurements, and results, where not specified in the Rules and Regulations; (iii) to determine the methodology used by the Judging Panel to render its decisions; (iv) to declare the winners of the competition; and (v) to award the prize purses and other awards. Decisions of the Judging Panel shall be binding on XPRIZE, teams, and each team member. XPRIZE and teams agree not to dispute any decision or ruling of the Judging Panel, including decisions regarding the degree of accuracy or error rate of any competition calculations, measurements, and results. Teams shall have no right to observe other teams' testing or evaluation, or to be informed of other teams' calculations, measurements, and results, unless such information is made publicly available by XPRIZE.