REGISTRATION BEGINS 8am – you must pre-register by March 5 online at http://www.usna.edu/STEM/ Additional info on schedule and logistics will be provided by email.

PRELIMINARY COMPETITION 9am-12pm
TEAMS WILL BE EVALUATED ON THE FOLLOWING:

- **DESIGN, CONCEPTS AND TEAMWORK** – teams will be asked a series of questions to determine the level of effort and understanding in these areas
- **CREATIVITY AND ENGINEERING APPLICATIONS** - SeaPerches will be judged on aesthetics, robustness, creativity of modifications to accomplish mission
- **BASIC LAUNCH**
  - **Speed** (average of time for 2 trials for a standard distance)
  - **Maneuverability** Speed to complete a submerged obstacle course that involves large rings (22” minimum diameter), oriented in any direction, through which the vehicles must travel. A possible course includes three to five -22” diameter hoops.
- **MATH CHALLENGE** - teams will solve analytical problems related to building the SeaPerch.

THERE IS NO POSTER OR FORMAL PRESENTATION SESSION!
BASED ON RESULTS OF PRELIMINARY ROUNDS, FINALISTS WILL PROGRESS TO THE FINAL ROUND.

FINAL COMPETITION  The Heist  1:00-2:30pm

The course consists of a mesh vault wall spanning the lane from bottom to surface. Starting 2’ below the surface will be the vault door. The door will sit within a 2’ opening in the wall. In order to open the door operators will have to manipulate a simple latch and push the vault door open. On the other side of the wall there will be a series of boxes to be retrieved. Operators will have to attempt to retrieve as many of the boxes as possible in the time provided. Retrieved boxes will have to then be placed in a specific lay down area near the wall on the operator’s side of the wall.

The Wall is made of 1/2” PVC pipe and fittings and will be a version of the one designed for the National Competition but designed for the USNA Tow Tank (6 feet deep). The setup when installed in the pool will place the door 2’ below the surface. The door is constructed of 1/2” CPVC pipe and fittings. The door and wall will be covered with a plastic mesh, similar to snow fence. The boxes will hold from 130 to 190kg of weight.
General Rules and Information

- Only team members are allowed in the test lanes during competition.
- All team members must wear close toed shoes with rubber soles to the competition.
- Nothing other than the SeaPerch ROV may be put into the tanks.
- Each SeaPerch ROV will perform a dry compliance check during the qualifying round and be inspected by an official prior to competition.
- There will be a triage area for repairs as required.
- Teams have a budget of $20.00 to modify the SeaPerch. It is the actual value of the modifications that must be $20 or less. Donated material should be assessed at what the cost would be to procure the material. The $20 limit is for costs of the materials utilized on the final competition vehicle. Reasonable spare parts are not included in this budget.
- Hooks and attachments may be added/removed depending on the competition round.
- Additional motors may be utilized for actuation or other non-propulsion uses.
- Teams may only utilize stock SeaPerch motors in thruster. Teams may not add additional thrusters to the SeaPerch. A thruster is defined as a means of propulsion for the SeaPerch, normally but not limited to a motor and propeller assembly.
- Teams will design for and utilize a 12-volt power source. Over charging or stacking batteries is not allowed. Be sure to have your 12V battery full charged and with you.
- The vehicle may be worked upon by the teams during the competition
- The vehicle cannot be dragged via the tether.
- No dimension shall be larger than 22” (minimum obstacle diameter)