

## GREAT LAKES REGIONAL MATE ROV STUDENT COMPETITION 2018 CONTEST INFORMATION

Registration for the Great Lakes Regional ROV contest is scheduled to open in January 2018.

Check out the [Great Lakes – Michigan regional contest webpage](#). Additional information will be posted in the [News & Events tab](#).

Competition day for all classes: Saturday, May 12, 2018

**New in 2018!!! Location: NOAA's Thunder Bay National Marine Sanctuary Visitor Center, the Great Lakes Maritime Heritage Center, and Marine Tech Test Tank on the visitor center grounds, 500 W. Fletcher Street, Alpena, MI**

### EXPLORER class:

EXPLORER class companies are NOT required to attend the Great Lakes regional to demonstrate their vehicle. If EXPLORER class companies wish to attend and practice with an in-water product demonstration run, contact the Great Lakes regional coordinator, [Sarah Waters](#), by March 31, 2018. EXPLORER class companies that wish to volunteer at the Great Lakes regional and should contact [Stephanie Gandulla](#) by March 31, 2018.

### RANGER class:

Company limit: The Great Lakes regional contest is limited to 10 RANGER class companies. Registration is limited to one RANGER class company per school. Schools wishing to register a second RANGER class company should contact the regional coordinator, [Sarah Waters](#), to be put on a waiting list. These schools will be notified by March 9<sup>th</sup> whether or not space is available.

**RANGER class registration for the Great Lakes regional contest will close on April 9**

### **Engineering & Communication requirements:**

- Technical documentation (submitted ahead of time by April 23, include all parts listed below)
  - Technical document
  - Company spec sheet
  - SID
  - OBS design document
  - Company Safety Review
- Engineering/Product presentation (performed at the competition)
- Marketing display (shown at the competition)
- SID (shown at the competition)
  - make sure to provide an updated copy of original SID if changes were made between submitting SID with Technical Document and the competition

All five Technical documentation components (document, spec sheet, SID, OBS design, and company safety review) are **due by 5:00 PM on Monday, April 23<sup>rd</sup>**. All five documents must be submitted electronically, to: [http://sarah.a.waters@noaa.gov](mailto:sarah.a.waters@noaa.gov)

See the [RANGER Competition Manual](#) [section 2.2 Safety pre-inspection, section 2.2.1 Safety documentation requirements, Part 5: Engineering & Communication] for more info on the required documentation.

**NEW for 2018!!!** The Great Lakes regional will use these documents to conduct an initial safety documentation review worth 20 points.

NOTE: By submitting your technical and other documentation, you are giving the MATE Center and Thunder Bay National Marine Sanctuary permission to publish these documents on their web sites.

Engineering/Product presentations will be given in the Thunder Bay National Marine Sanctuary visitor center, the Great Lakes Maritime Heritage Center, conference room, conservation lab, or office rooms. Companies will set up Marketing displays in the exhibit area of the visitor center – tables or easels will be provided.

**Other important dates:**

- The last day to pass the fluid power quiz is March 16<sup>th</sup>
- The last day to submit laser specification is March 16<sup>th</sup>

**Competition set-up:**

RANGER companies will complete all three tasks in one product demonstration run. On competition day, RANGER companies will receive two attempts at the product demonstration. Each product demonstration time will consist of:

- 5 minute set-up period
- 15 minute product demonstration period
- 5 minute demobilization period

**Please Note:** Maximum of six RANGER class team members are allowed on the tank/pool deck for each of the two product demonstration attempts.

The higher of the two product demonstration scores will be added to your Engineering & Communication, Marketing display, and Safety score to determine the total, overall score for the competition.

An event schedule will be released one week before the contest. If companies have any time constraints that they wish the Great Lakes regional competition to consider, please contact the

regional coordinator, [Sarah Waters](#), by Monday, April 23<sup>th</sup>

**Operational:**

Tank (pool): The tank bottom is sloped. The depth for RANGER class product demonstrations is approximately 10-12 feet.

Product Demonstration Station: A table and two chairs will be provided at each product demonstration station.

The Great Lakes regional competition will NOT provide video monitors for RANGER class companies. Companies must provide their own video displays. See Vehicle Design & Building Specifications (3.8.2) in the [RANGER Competition Manual](#) for number of video displays allowed.

Diver Support: Diver support will be available during the product demonstration runs, but any diver assistance will constitute a penalty.

PFDs: Companies are not required to wear PFDs at the tank edge. The Great Lakes regional competition will NOT have PFDs available for use.

Power: RANGER class companies will use a dedicated power supply that will provide the nominal 12 volts.

Pressurized cylinders: All pressurized cylinders must be approved by the US DOT.

Shared equipment: If you are planning on sharing equipment (monitors, pressurized cylinders), please contact the regional coordinator, [Sarah Waters](#), by April 23

**Safety inspection:**

RANGER class companies will visit a safety inspection station in the company workstation area. During registration, RANGER class companies will receive their safety inspection score sheet. After they have set up their system and are ready for inspection, they should move to the safety inspection station with their score sheet. A safety inspector will conduct the safety inspection.

Companies that pass their safety inspection will be given a green PASSED card; the safety inspector will keep the safety inspection score sheet. Companies must present the green PASSED card to the product demonstration station judge in order to compete in the tank. Companies that fail their safety inspection must address the issue and return to the safety inspection station for another inspection.

**Please Note:** The Great Lakes regional competition will not be requiring or offering points for Corporate Responsibility or for Job Safety Analysis (JSA).

## NAVIGATOR class:

Company limit: The Great Lakes regional contest is limited to 10 NAVIGATOR class companies. Registration is limited to one NAVIGATOR class company per school. Schools wishing to register a second NAVIGATOR class company should contact the regional coordinator, [Sarah Waters](#) to be put on a waiting list. These schools will be notified by March 9<sup>th</sup> whether or not space is available.

## **NAVIGATOR class registration for the Great Lakes regional contest will close on April 9**

Engineering & Communication requirements:

- Marketing display (set up at the competition)
- Engineering/Product Presentation (performed at the competition)
- SID (shown to judges at the competition)

Engineering/Product presentations will be given in the Thunder Bay National Marine Sanctuary visitor center, the Great Lakes Maritime Heritage Center, conference room, conservation lab, or office rooms. Companies will set up Marketing displays throughout the exhibit area of the visitor center – tables or easels will be provided.

### **Competition set-up:**

NAVIGATOR companies will complete all three tasks in one product demonstration run. On competition day, NAVIGATOR companies will get two attempts at the product demonstration.

Each product demonstration time will consist of:

- 5 minute set-up period
- 15 minute product demonstration period
- 5 minute demobilization period

**Please Note:** A maximum of **six\*** NAVIGATOR class team members are allowed on the pool deck for each of the two product demonstration attempts. Teams may swap out different team members of the same team on the pool deck for the second attempt. **\*\*a regional change from the MATE Competition Manual for Navigator.**

The higher of the two scores will be added to your Engineering & Communication and Safety score to determine the total, overall score for the competition.

An event schedule will be released one week before the contest. If companies have any time constraints that they wish considered, please contact, [Sarah Waters](#) by April 23

### **Operational:**

Anderson Powerpole connections are required for NAVIGATOR class. NAVIGATOR companies will not be able to connect to the competition power supply without Anderson Powerpole connectors. See the [NAVIGATOR Competition Manual](#) for more information.

Tank (pool): The outdoor tank has a sloped bottom. The depth for NAVIGATOR class product demonstrations is approximately 10-12 feet.

Product Demonstration Station: A table and two chairs will be provided at each product demonstration station.

The Great Lakes regional competition will NOT provide video monitors for NAVIGATOR class companies. Companies must provide their own video displays. See Vehicle Design & Building Specifications (3.8) in the [NAVIGATOR Competition Manual](#) for number of video displays allowed.

Diver Support: Diver support will be available during the product demonstration runs, but any diver assistance will constitute a penalty.

PFDs: Companies are not required to wear PFDs at the tank edge. The Great Lakes regional competition will NOT have PFDs available for use.

Power: NAVIGATOR class companies will use a dedicated power supply that will provide the nominal 12 volts.

Shared equipment: If you are planning on sharing equipment (monitors, joysticks), please contact the regional coordinator, [Sarah Waters](#) by April 23

**Safety inspection:**

NAVIGATOR class companies will visit a safety inspection station in the company workstation area. During registration, NAVIGATOR class companies will receive their safety inspection score sheet. After they have set up their system and are ready for inspection, they should move to the safety inspection station with their score sheet. A safety inspector will conduct the safety inspection.

Companies that pass their safety inspection will be given a green PASSED card; the safety inspector will keep the safety inspection score sheet. Companies must present the green PASSED card to the product demonstration station judge in order to compete in the pool. Companies that fail their safety inspection must address the issue and return to the safety inspection station for another inspection.

**Please Note:** Companies MUST bring a copy of their SID to the safety inspection. Companies using fluid power must also provide a fluid power SID. See the [NAVIGATOR Competition Manual](#), section 2.1.1, for more information on the SID, and Part 6, DOC-004 for more information on the fluid power SID.

**Please Note:** The Great Lakes regional will not be offering points for Corporate Responsibility to NAVIGATOR class companies.

## SCOUT class:

Company limit: The Great Lakes regional contest is limited to 10 SCOUT class companies. Registration is limited to two SCOUT class company per school.

If your school plans to have multiple teams compete in an in-school runoff for the two registered positions, register two teams as *school name 1* and *school name 2*. Contact the regional coordinator [Sarah Waters](#) by April 23<sup>th</sup> with the company names of the winning teams. Those company names will be inserted into the official schedule of events.

If your school plans to have multiple teams compete in an in-school runoff for the two registered positions, don't wait to register for the regional, please register two teams as: "school name 1" and "school name 2." Contact the regional coordinator, [Sarah Waters](#) before the competition with the company names of the winning teams. Those company names will be inserted into the official schedule of events.

## **SCOUT class registration for the Great Lakes regional contest will close on April 9**

### **Engineering & Communication requirements:**

- Marketing display (set up at the competition)
- Engineering/Product Presentation (performed at the competition)

Engineering/Product presentations will be given in the Thunder Bay National Marine Sanctuary visitor center, the Great Lakes Maritime Heritage Center, conference room, conservation lab, or office rooms. Companies will set up Marketing displays in the exhibit area of the visitor center – tables or easels will be provided.

### **Competition setup:**

SCOUT companies will complete all three tasks in one product demonstration run. On competition day, SCOUT companies will get two attempts at the product demonstration. The product demonstration time will consist of:

- 3 minute set-up period
- 10 minute product demonstration period
- 2 minute demobilization period

**Please Note:** Maximum of four SCOUT class team members are allowed on the pool deck for each of the two product demonstration attempts. Teams may swap out different team members of the same team on the pool deck for the second attempt.

The higher of the two product demonstration scores will be combined with the Engineering & Communication and Safety score to get the company's total score.

An event schedule will be released one week before the contest. If companies have any time constraints that they wish considered, please contact the regional coordinator, [Sarah Waters](#) by April 23<sup>rd</sup>

### **Operational:**

SCOUT class companies MUST use Anderson Powerpole connectors to connect to the Great Lakes regional competition power supply. See the [SCOUT Competition Manual](#) for more information.

Pool: The tank may have a sloped bottom. The depth for the SCOUT class product demonstrations will be between 4-8 feet.

Product Demonstration Station: Product demonstration stations will be identified by a laminated card on the tank deck area. Product demonstration control stations will not have a table, chairs, video monitors, or access to AC power.

Diver Support: Diver support will be available during the product demonstration runs, but any diver assistance will constitute a penalty.

PFDs: Companies are not required to wear PFDs at the tank edge. The Great Lakes regional competition event will NOT have PFDs available for use.

Power: SCOUT class companies will use either a dedicated power supply that will provide the nominal 12 volts or a 12 volt deep cycle marine battery.

Shared equipment: If you are planning on sharing equipment with other companies, please contact the regional coordinator, [Sarah Waters](#) by April 23.

### **Safety inspection:**

A SCOUT safety inspection table will be located near the registration/check-in area. After registering the morning of the competition, SCOUT class companies are required to take their vehicle to this table for inspection. SCOUT class companies are required to provide an electrical SID (and a fluid power SID if applicable) to the safety inspection judge when they arrive at the safety inspection table. See the Vehicle Design & Building Specifications [Section 2.0 Safety] in the [SCOUT Competition Manual](#) for more information.

Companies that pass the safety inspection will be given a green PASSED card; the safety inspector will keep their safety inspection score sheet. Companies must present the green PASSED card to the product demonstration station judge in order to compete in the tank. Companies that fail their safety inspection must correct the issue and return to the safety inspection table to have their vehicle re-inspected. **Please Note:** The Great Lakes regional will not be offering points for Corporate Responsibility to SCOUT class companies.