



VOLUNTEERS AND JUDGES FAQs

Gray's Reef Southeast MATE ROV Competition is a regional qualifying event for the MATE ROV World Championship. Student teams from across Georgia and the southeast compete in five different classes of skill level [SCOUT, NAVIGATOR, RANGER, PIONEER (new this year!) and EXPLORER] with their custom-built robots to complete a complex underwater mission simulations to restore our ocean through sustainable practices like maritime aquaculture, renewable energy, and historical climate studies.

Since 2004, Gray's Reef has provided opportunities for regional students and teachers to learn and participate in ocean science and engineering missions, and each year we advance the top qualifying student teams to compete against the world's best. This year, we'll see teams in all five classes including our new PIONEER class for 2-year community and technical colleges. PLUS, our reigning RANGER-class **MATE ROV World Champions**, *North Paulding Robotics* from North Paulding High School, will compete against new challengers in the region to retain the title.

Gray's Reef will offer a HYBRID Competition event again this year following COVID-19 guidelines with a special livestream for remote viewing. Continuing from last year, our team Engineering interviews with a panel of judges will be hosted via Zoom and scheduled in advance of the competition. We will require Technical Reports along with Marketing Posters to be submitted electronically and scored in advance. Team ROV demonstrations will be in-person.

TIMELINE:

- Engineering and Communications – video meetings and digital file scoring (technical reports, marketing posters, spec sheets, JSA) **REMOTE ONLY**
April 25 – May 5
- Safety Inspections and Product Demonstration **IN-PERSON**
May 7, 2022
- Awards Ceremony **REMOTE ONLY**
May 8, 2022



COMPETITION VENUE:

Chatham County Aquatic Center, 7240 Sallie Mood Drive Savannah, GA 31406

VOLUNTEER REGISTRATION:

Volunteers and Judges are required to register for participation through [ACTIVE](#) which is our competition database. This process includes authorizing the waivers (media, liability) for participation. A confirmation email will be sent in follow-up to verify your position.

VOLUNTEERS AND JUDGES DETAIL

See below for a brief description on roles and responsibilities. Additional resources for each role are provided (ie. scoresheets, videos) and will also be discussed at the orientation meeting.

- An online orientation will be provided on **April 18th** (12:00-1:30PM) and will be recorded
- An in-person orientation will be provided on **May 6th** (5PM) at the Chatham County Aquatic Center and is recommended for Mission Judges and Divers
- Check-in for your shift on Saturday, **May 7th** at the Registration table and be sure to complete an onsite survey for your **free lunch** ticket! **Chic fil-a** will cater our lunch so please let me know if you would request a vegetarian option.

VIDEO EXAMPLES

The 2021 Gray's Reef Southeast MATE ROV Competition [livestream video](#) is linked here and provides a visual orientation to the ROV mission stations, with camera views on deck where teams compete and on the underwater obstacle course. Enjoy this narrated livestream featuring MATE Inspiration for Innovation President/Executive Director, Jill Zande, and Gray's Reef Foundation's Founding Board Chair, Cathy Sakas.

This year's mission props and tasks were discussed in detail during these recent MATE Facebook Live demonstration events with team Q&A. If you want to learn more about the props, how the teams are to interact with them, and how they are scored in the mission demonstration, then watch these Facebook videos:

[RANGER/PIONEER/EXPLORER](#) and [SCOUT/NAVIGATOR](#)



ENGINEERING PANEL JUDGES

* [Please indicate your availability on this scheduler.](#)

Engineering interviews will be scheduled with teams during **April 25th – May 5th**. Interview panel judges will be provided with a Zoom link to their scheduled interviews, once confirmed. Teams will join the Judging Panel on a Zoom call and will present to you their vehicle (on camera) and detail the engineering design process that the team undertook to build the ROV. They should introduce their team and describe the teamwork along with the solutions implemented to perform the mission tasks.

See this example [interview with Sea Life Technologies](#) and subsequent judges Q&A. This ROV team won top score on their RANGER-class Engineering Interview at the World Championships last year. Note that this example is the best-of-the-best and most teams will not perform at this level but should aspire to.

References:

- EXPLORER/PIONEER/RANGER-class [scoring rubric](#)
- NAVIGATOR/SCOUT-class [scoring rubric](#)

TECHNICAL REPORTS JUDGE

All technical reports (RANGER, NAVIGATOR, SCOUT) are due from teams by April 22nd. These team reports will be provided to the Technical Reports Judge after that date to score and be completed by May 5th.

References:

- RANGER-class [scoring detail](#)

MARKETING POSTER JUDGES

All team Marketing Posters (SCOUT, NAVIGATOR, RANGER) are due by April 22nd. These documents will be provided to the Marketing Poster Judges after that date to score and be completed by May 5th.

References:

- All classes, reference this [instructional Prezi](#).



MISSION DEMONSTRATION JUDGES (MAY 7, 2022 8am - 5pm)

All teams will participate in a scheduled Mission Demonstration (SCOUT, NAVIGATOR, RANGER, PIONEER, EXPLORER) in-person on Saturday, May 7th at Chatham County Aquatic Center in Savannah, GA. Teams will run a Mission Demonstration attempt in the morning and a second attempt in the afternoon for best score.

References:

- EXPLORER-class [scoresheet](#) ([video fly-thru](#))
- PIONEER-class [scoresheet](#) ([video fly-thru](#))
- RANGER-class [scoresheet](#) ([video fly-thru](#))
- NAVIGATOR-class [scoresheet](#) ([video fly-thru](#))
- SCOUT-class [scoresheet](#) ([video fly-thru](#))

SAFETY INSPECTION JUDGES (MAY 7, 2022 8am - 3pm)

All teams are required to pass a Safety Inspection prior to attempting their Mission Demonstrations (SCOUT, NAVIGATOR, RANGER, PIONEER, EXPLORER) on **Saturday, May 7th**. Safety is a priority and student teams will be offered up to three attempts to pass their inspection.

References:

- EXPLORER-class [onsite safety inspection](#) (*[judges tutorial](#))
- PIONEER-class [onsite safety inspection](#)
- RANGER-class [initial safety inspection](#), [onsite safety inspection](#)
- NAVIGATOR-class [initial safety inspection](#), [onsite safety inspection](#) (*[judges tutorial](#))
- SCOUT-class [onsite safety inspection](#)

SCUBA DIVERS (MAY 7, 2022 8am - 5pm)

The dive team supports the competition mission obstacle course which is placed on the pool floor for team demonstrations. Divers are asked to set-up these obstacles before and after each run, plus support drop-cam placement for the livestream feed or use GoPros to collect footage.

Team vehicles may become entangled in a prop and need diver assistance to become free. A Mission Judge will request you to support a vehicle or prop, and a diver recall system will be used for communications to divers when assistance is requested.



References:

- RANGER-class ([video fly-thru](#))
- NAVIGATOR-class ([video fly-thru](#))
- SCOUT-class ([video fly-thru](#))

Dive teams will rotate throughout the day with teams scheduled in the morning, and teams scheduled for the afternoon. Divers can expect conditions of an Olympic-sized, freshwater swimming pool with depths ranging from 2.4 - 3.35 meters and temperatures 76-80°. Layering or the use of thick mil wetsuits is advised. One scuba tank with NITROX is provided per diver per shift (AM and/or PM). Certifications are required and will be requested by the DSO prior to the event.

DECK, A/V, TIMEKEEPER, RUNNER (MAY 7, 2022 8am - 5pm)

There are a variety of 'other' support positions available including Deck Safety Supervisor, A/V Support, Timekeeper, Check-in/Registration, and Runners that are all integral to the success of the event. These position tasks will be discussed at the orientation meetings.

* To mitigate the spread of COVID - 19, face masks are recommended to be worn inside the venue with social distancing expected throughout. Capacity inside the venue will be limited to 50 people or less.

AWARDS (MAY 8, 2022 1:00PM)

An awards announcement will be hosted online at 1PM on Sunday, May 8th. More details will be provided soon along with a link for all to attend.

Please contact your Gray's Reef Southeast MATE ROV Competition Coordinator for additional information.

Jody Patterson, *Chapter Director*

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