

**2021 Northern California Monterey Bay Regional**  
**Saturday, June 19<sup>th</sup>**  
**Naval Postgraduate School – Sea Land Air Military**  
**Research (SLAMR) Initiative**  
**Monterey, CA**

I'm pleased to share that we are working with the Naval Postgraduate School (NPS) in Monterey, CA to host the Northern California-Monterey Bay Regional Competition safety inspections and in-water product demonstrations at NPS' Sea Land Air Military Research Initiative (SLAMR) facility (see <https://nps.edu/web/slamr>).

This year we will be conducting a hybrid regional; Engineering & Communication components will be handled remotely/online, with safety inspections and product demonstrations held in-person in one of the tanks at SLAMR. For the Engineering & Communication components, the engineering presentations will be delivered and judged via Zoom in advance of the in-person event. See the information for each competition class to see the due dates for the other engineering & communication components.

The date for the in-person event at the NPS – SLAMR facility is June 19<sup>th</sup>, 2021.

To maintain social distancing at the in-person event, teams will be scheduled to complete their product demonstration runs back-to-back, with a short break in between. For example, teams will arrive at and set up at a workstation area to check their vehicle, undergo a safety inspection in the staging area and prepare to complete their product demonstration runs. After their product demonstration runs, teams will pack up at their workstation and exit the facility. Schools with multiple teams will be scheduled at the same time or one right after the other, so the teams can arrive, compete and leave as a group. Stations and work tables will be sanitized in between each team's run.

**RANGER class:**

RANGER class registration for the Monterey Bay regional contest will close on May 26, 2021.

**Engineering & Communication requirements:**

- **Technical documentation**
  - **Technical documentation**
  - **Company spec sheet**
  - **SIDs (separate from the SIDs in the technical documentation)**
  - **Non-ROV device design document (if used)**
  - **Company Safety Review**

- **Engineering presentation**

**Note: The Monterey Bay regional contest will NOT require a marketing display from RANGER class teams.**

All Technical documentation components are due by 11:59 PM on **Thursday, May 27<sup>th</sup>**. All documents must be submitted via the form located here – [2021 Northern California – Monterey Bay Document Submission Form](#).

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.

The Monterey regional will use these documents to conduct **an initial safety review** worth 20 points using the [initial safety inspection sheet](#).

NOTE: By submitting your technical and other documentation, you are giving the MATE Center permission to publish these documents on its web site.

All companies will complete an engineering presentation via Zoom. Registered teams will be contacted to select a time to meet with a set of judges to complete the engineering presentation. Engineering presentations will take place between June 12<sup>th</sup> to June 18<sup>th</sup>. Teams will be contacted to schedule a time to conduct their Zoom engineering presentation. All team members should be present for the engineering evaluation. Mentors, family and others may attend the Zoom presentation, but must have video and sound turned off at all times. Engineering presentation judges may decide to remove participants at any time if they become disruptive.

**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

The higher of the two product demonstration 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 2 weeks before the contest. If companies have any time constraints that they wish the MATE Center to consider, please contact the regional coordinator, [Matthew Gardner](#), by Friday, May 28<sup>th</sup> (3 weeks prior to the competition).

**Operational:**

Pool: The pool has a flat bottom. The depth for the RANGER class product demonstrations is approximately 4.5 meters (13 feet).

The SLAMR tank water level will be ~3 feet below the level of the deck at RANGER stations. ROVs will have to be lifted by their tether to deploy them into and remove them from the water. Make sure your tether strain relief on the ROV side is adequate. Also make sure your gripper(s) is secure when holding items out of the water so that a recovered object doesn't drop as you are lifting it from the water line to the pool deck.

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

The MATE Center 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.

Personal Flotation Devices: Companies are not required to wear PFDs at the pool edge. The MATE Center 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, [Matthew Gardner](#), by Friday, May 28<sup>th</sup> (3 weeks prior to the competition).

**Safety inspection:**

RANGER class companies will visit a safety inspection station in the company workstation area. During check-in, 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 blue PASSED card; the safety inspector will keep the safety inspection score sheet. Companies must present the blue 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.

The Monterey Bay regional will not be offering points for a job site safety analysis (JSA).

The Monterey Bay regional will not be offering points for Corporate Responsibility.

## **NAVIGATOR class:**

NAVIGATOR class registration for the Monterey Bay regional contest will close on June 2, 2021.

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

- **Marketing Display (poster)**
- **Engineering presentation**

The Marketing Display (poster) is due by 11:59 PM on **Sunday, June 6<sup>th</sup>**. The marketing display must be submitted via the form located here – [2021 Northern California – Monterey Bay Document Submission Form](#).

Marketing Displays can be created using the MS PowerPoint 36x48 tri-fold template or other similar poster template. Posters can be created at scale and uploaded as a PDF, which will retain high quality readability.

All companies will complete an engineering presentation via Zoom. Registered teams will be contacted to select a time to meet with a set of judges to complete the engineering presentation. Engineering presentations will take place between June 12<sup>th</sup> to June 18<sup>th</sup>. Teams will be contacted to schedule a time to conduct their Zoom engineering presentation. All team members should be present for the engineering evaluation. Mentors, family and others may attend the Zoom presentation, but must have video and sound turned off at all times. Engineering presentation judges may decide to remove participants at any time if they become disruptive.

### **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

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 2 weeks before the contest. If companies have any time constraints that they wish the MATE Center to consider, please contact the regional coordinator, [Matthew Gardner](#), by Friday, May 28<sup>th</sup> (3 weeks prior to the competition).

### **Operational:**

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

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Pool: The pool has a flat bottom. The depth for the NAVIGATOR class product demonstrations is approximately **4.5 meters (13 feet)**.

The SLAMR tank water level will be ~3 feet below the level of the deck at NAVIGATOR stations. ROVs will have to be lifted by their tether to deploy them into and remove them from the water. Make sure your tether strain relief on the ROV side is adequate. Also make sure your gripper(s) is secure when holding items out of the water so that a recovered object doesn't drop as you are lifting it from the water line to the pool deck.

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

The MATE Center 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 pool edge. The MATE Center 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, [Matthew Gardner](#), by Friday, May 28<sup>th</sup> (3 weeks prior to the competition).

**Safety inspection:**

NAVIGATOR class companies will visit a safety inspection station in the company workstation area. During check-in, 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 blue PASSED card; the safety inspector will keep the safety inspection score sheet. Companies must present the blue 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.

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.

The Monterey Bay regional will not be offering points for Corporate Responsibility to NAVIGATOR class companies.

## **SCOUT class:**

SCOUT class registration for the Monterey Bay regional contest will close on June 2, 2021.

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

- **Marketing Display (poster)**
- **Engineering presentation**

The Marketing Display (poster) is due by 11:59 PM on **Sunday, June 6<sup>th</sup>**. The marketing display must be submitted via the form located here – [2021 Northern California – Monterey Bay Document Submission Form](#).

Marketing Displays can be created using the MS PowerPoint 36x48 tri-fold template or other similar poster template. Posters can be created at scale and uploaded as a PDF, which will retain high quality readability.

All companies will complete an engineering presentation via Zoom. Registered teams will be contacted to select a time to meet with a set of judges to complete the engineering presentation. Engineering presentations will take place between June 12<sup>th</sup> to June 18<sup>th</sup>. Teams will be contacted to schedule a time to conduct their Zoom engineering presentation. All team members should be present for the engineering evaluation. Mentors, family and others may attend the Zoom presentation, but must have video and sound turned off at all times. Engineering presentation judges may decide to remove participants at any time if they become disruptive.

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

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. Each product demonstration time will consist of:

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

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 2 weeks before the contest. If companies have any time constraints that they wish the MATE Center to consider, please contact the regional coordinator, [Matthew Gardner](#), by Friday, May 28<sup>th</sup> (3 weeks prior to the competition).

### **Operational:**

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

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Pool: The missions will be set up on a platform set at 2 meters (7 feet deep). The depth for the SCOUT class product demonstrations is approximately 7 feet. Note that pool is 4.5 meters deep.

Product Demonstration Station: A single chair will be provided at each product demonstration station.

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 pool edge. The MATE Center will NOT have PFDs available for use.

Power: SCOUT 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, [Matthew Gardner](#), by Friday, May 28<sup>th</sup> (3 weeks prior to the competition).

**Safety inspection:**

SCOUT class companies will visit a safety inspection station in the company workstation area. During check-in, SCOUT 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.

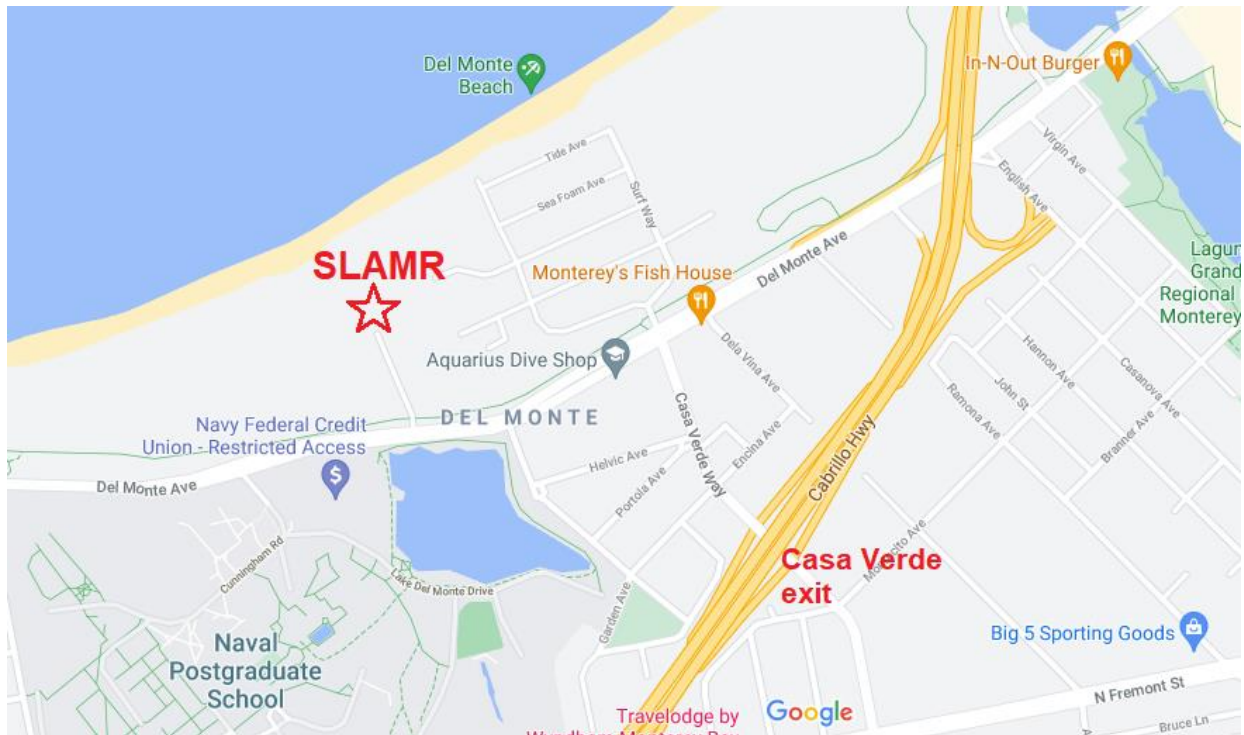
Companies that pass their safety inspection will be given a blue PASSED card; the safety inspector will keep the safety inspection score sheet. Companies must present the blue PASSED card to the product demonstration station judge in order to compete in the pool. Companies that fail their safety inspection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

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 [SCOUT Competition Manual](#) for more information on the SID.

The Monterey Bay regional will not be offering points for Corporate Responsibility to SCOUT class companies.

Finally, I want to thank everyone for their patience this year. We at MATE HQ are dedicated to having our Northern California - Monterey Bay regional event this spring, while staying safe and following all the federal, state, and local health guidelines. We hope to see all of you at the regional event this year, but for those of you who aren't able to field a team this year, we will look forward to seeing you in 2022.

Matthew Gardner  
MATE ROV Competition





Driving Instructions:

- From Highway 1/Cabrillo Highway (both northbound and southbound), take the Casa Verde exit.
- Head north towards the ocean.
- Turn Left on Del Monte Avenue.
- Turn right on the unnamed service road across from the lake on the grounds of the Naval Postgraduate School.  
[Watch out for pedestrians and bikers as you cross the bike path!](#)
- The SLAMR facility is at the end of the unnamed service road.