

Aloha Teams:

Below is the 2009 MATE-BIRR Engineering Communication Technical Report Outline to help facilitate your team's technical report. **It is NOT required to use this template! THIS REPORT TEMPLATE DOES NOT APPLY TO THE INTERNATIONAL MATE COMPETITION or their Deadlines! This is strictly for MATE-BIRR.** It is being provided as a courtesy to aid teams and advisors in facilitating your team's success in writing a concise, informative, quality technical report for this competition. You may have one that is better suited for your team. This outline was produced using the 2007 & 2008 scoring sheet; any suggestions for improvement are appreciated.

**DUE DATE: FRIDAY, APRIL 24, 2009 by 6:00PM.**

Electronic .pdf Copy to Cindy Fong: [clfong@hawaii.edu](mailto:clfong@hawaii.edu) or [cindy.l.fong@gmail.com](mailto:cindy.l.fong@gmail.com)

**Extended Due Date - Service Learning Page Only! Wednesday, by 6:00PM -April**

**29, 2009** Allows teams to participate in the MATE-BIRR service learning & outreach during UHH PACRC Ocean Day or an Earth Day activity in your area. We want you to be able to include these activities in your report. The rest of the report must be received by the deadline and this page due by Wed, April 29, 2009.

**Modifications from International Rules:**

1. **These reports will not be available to ANY MATE-BIRR mentor, advisor, or student to see and I do not share or disclose anything on these reports except with our judges.**
2. Send report as a [.pdf file](#). If unable to convert, check with me in advance as I am able to convert from many different programs – but let's do this in advance and not at the last minute.
3. **Total pages allowed:** 1 Cover Page; Maximum of 5 pages for technical report and diagrams; and 1 Service Learning Page for a total of 7 pages and 2MB maximum in size.
4. **Margins:** 0.75-inch on all sides (no smaller)
5. **Font style:** Times New Roman or Arial. If you prefer to use different font, please contact me Asap. These fonts are easier to read for the judges.
6. **Font size:** no smaller than 10 or 12 point.
7. **Organize** your report as follows:
  - a. Title/Cover Page: will be the first page.
  - b. Technical Report (number your pages!)
  - c. Service Learning
8. Advisor will receive an email response that your report was/was not received.

If you have any questions, please contact Cindy Fong Asap. This report is not intended to be as comprehensive as required for the international competition but instead informative for the judges. It is understandable some teams who have attended the international competition may have difficulty including everything but consider including some of these details in your oral presentation. Short and concise writing is challenging and will be appreciated by all our judges and is an important communication tool used in industry.

Thanks!

Cindy Fong, MATE-BIRR Coordinator

## MATE-BIRR 2009 ROV Technical Report Outline

### Page 1:

#### I.

##### Cover Page

- a. Photo of ROV/Team
- b. ROV Name
- c. Team Name, School/Club name, project name
- d. Team members: Team Captain listed first, then team members (i.e. Sarah Lead, Team Captain; Allen Junior,....)
- e. Advisor(s)/Instructor(s)
- f. Mentor(s) and associated company
- g. Sponsor Logos on page (present in a nice graphic fashion)

### Pages 2 to 6:

#### II. Historical and Technical Information

- a. Submarine Rescue: Historical, Cultural and/or Societal implications of submarine rescue “Why”
- b. Budget/Expense Totals - include:
  - i. Base cost of your operational ROV
    1. new, reused or donated materials
    2. each team should keep a detailed spreadsheet for their use to track all costs to allow for fairly accurate reporting
  - ii. Borrowed equipment – separate line item if to be returned
  - iii. Tools and Equipment used
    1. borrowed or purchased (basic we used basic shop tools provided by the school...)
  - iv. Mentor assistance – time provided
  - v. If possible, mention overall cost that includes your R&D (research & development) but does not need to be part of your base ROV cost.
- c. ROV Design and Technical Information:
  - i. Design Rationale
  - ii. Vehicle Systems, Manipulators, Sensors, etc
  - iii. Electrical Schematic(s)
    1. include at least the primary controller unit
  - iv. Troubleshooting and Problem Solving Techniques
- d. Reflections
  - i. Challenges & Lessons Learned
  - ii. Teamwork Issues, Strategies, and Project Management
  - iii. Personal and Academic/Professional Accomplishments
  - iv. Future Improvement and Changes
- e. Acknowledgements of sponsors, mentors, advisors...be sure to include the MATE Center and MATE-BIRR Steering Committee who make this happen

### Page 7:

#### III.

##### Service Learning

- a. Photos
- b. Brief description/caption of photos
- c. Brief paragraph of what you did, learn, and contributed