

Generic notes for all project teams—Please review these notes carefully before preparing your Phase 2 response: Overall Phase 1 requests exceed total available resources for ship time, labor, and expenses, so adjustments are necessary to arrive at a balanced budget. Please review the information below and feel free to ask the Management Team (MT) for clarifications should questions arise while preparing your Phase 2 response. Project-specific feedback follows this general information.

Ratings

For those projects given a “1” rating, only minor changes, if any, are necessary. Nevertheless, be aware that while the MT supports the proposal, it is possible budget cuts may be necessary pending final budget, labor, and ship time balancing.

A rating of “2” means more action or detailed response from the project team is required. In most cases, the MT has made specific recommendations that will result in a modified, workable version of the project plan, and the project team is asked to implement those changes. In other instances, it may be possible for the project team to suggest alternative project revisions, and these will be considered during Phase 2 reviews. If you plan to suggest project revisions differing from those requested by the MT, you are strongly encouraged to discuss those changes with the listed MT contact prior to submitting your Phase 2 response.

A rating of “3” means that significant changes would be required, and the project may not be supported for the reasons stated.

Ship Requests

Both the Western Flyer and Rachel Carson will go to the shipyard in 2020, reducing the number of ship days available for each vessel. Both ships are currently oversubscribed, each by over 55 days. DMO has been working on scenarios to accommodate as many requests as possible, but significant reductions will be required. Feedback provides specific reductions for some projects, and all projects are asked to prioritize activities for the number and duration of your requests. Please also consider opportunities for joint missions (“piggy back”) with other groups and provide details in your Phase 2 response.

The Wave Gliders are oversubscribed by approximately 45 days. Similar to last year, we are looking at opportunities for joint missions (“piggy back”) between groups to bring the at sea days down to a manageable level.

Direct expenses

Total requests exceed available funds by ~\$750,000 and so an overall budget reduction during Phase 2 is necessary. Please review your budget requests carefully to determine if any savings are possible, and if so, revise your budget accordingly. In some cases, the MT feedback provides specific suggestions/guidance/instructions on reductions for Phase 2, but all project teams are also asked to consider ways to reduce costs where possible and appropriate. Many projects are also being asked to look for opportunities to pre-purchase items in 2019 for 2020 projects. Please review your 2020 budget and identify any items for potential pre-purchasing in your Phase 2 response.

Labor hours

Accounting has determined a target number of total hours available by individual across projects. This number accounts for accrued vacation time, holidays, sick leave, other leave, etc. Feedback may include notification of altered hours to reach this target number.

If you are entering budget on a grant, please confirm that the labor hours budgeted for those listed in the grant will be the actual working hours charged to the grant in 2020, not counting any vacation, holiday, sick, or other leave expected for 2020. If fewer hours are charged to the grant during the course of 2020 than what is entered in the budget, MBARI's overall budget will be negatively impacted. Therefore, we ask that you be mindful of the hours budgeted and realize that you are committing to these hours being charged to the grant in 2020.

Engineering/DMO Labor

Requests for engineering and DMO labor exceed the number of allocable hours. Please ensure that requests have been carefully scoped and, if possible, reduce those requests. Where applicable, prioritize engineering tasks and indicate in your response which tasks may be deferred or removed. Please see Doug Au or Mike Kelly if you have any questions or need further information.

Some reductions/changes in engineering and DMO resources have already been identified by the MT. These changes are detailed in the project-specific feedback below. Please review these changes carefully and enter these revisions in the budget system, as appropriate, for your project. If there are concerns about the suggested changes to resources or project scope thus far, please include details in your Phase 2 response and provide justification for any requests. Again, please reach out to your MT contact if you would like to discuss your response prior to the Phase 2 deadline.

Video Lab

As in previous years, there are insufficient Video Lab staff hours to accommodate all 2020 project requests for annotation, machine learning, more detailed analyses, time at sea, and related projects. In addition to changing divisional and institutional priorities and needs, project requests for technical upgrades, annotation, machine learning, and related work continue to grow. Please be prepared to prioritize annotations related to your data and all other requests for Video Lab time.

New Permit Requirement: Low Energy Geophysical Survey Permit

California State Lands Commission is expected to implement new regulations, effective January 1, 2020, regarding Low Energy Geophysical Survey Permits within California state waters. In general, California state waters extend from the shore to 3 nautical miles offshore, except for certain exceptions like Monterey Bay which is entirely state waters. Geophysical Survey means the systematic collection of geophysical data for spatial analysis, within a pre-determined area of study, by reflecting sound or pressure waves off the floor underlying marine waters and non-marine waters, and analyzing such data to

develop an approximation of the physical features of the surface or subsurface floor underlying marine waters and non-marine waters.

If you are conducting Geophysical Surveys as defined by the State, you will require a permit. The only exception to the permit is for AUVs equipped with low energy equipment operating at 200 kHz or higher. Please indicate in your Phase 2 response if you believe your work will be subject to these regulations.

The detailed definitions and permit regulations can be found at <https://slc.ca.gov/low-energy-offshore-geophysical-permit-program/notice-of-rulemaking-permits-for-geophysical-surveys/>. You can also contact Mike Kelly if you have questions.

Be aware—you will have significant administrative workload in using this permit once obtained.

Final notes

Please be sure to enter all budget revisions (labor, ship, expense) in the web budget system, as necessary, prior to the Phase 2 deadline (Thursday, September 5 at 8:00 a.m.).

All written Phase 2 responses should be sent directly to Mandy Allen via email.

901803 Carbon Wave Glider Development

Rating: 1

MT contact: Jim Barry

Management Team Feedback

General Comments:

Andrea, thank you for the very clear and thorough proposal. Always a pleasure to read. The project is excellent, and you've made good progress despite delays with the machine shop.

As a general comment, the carbon group uses the *Paragon* frequently, and it seems advisable for the group to have a certified captain for the *Paragon* (Josh Plant?). There will be an opportunity soon through DMO for certification.

Some hours in the budget (listed as TBD) were inadvertently cut and pasted from last year's proposal. These hours have been removed from the budget entry system, as requested.

For Phase 2 please address the following:

- Owing to an oversubscribed wave glider request, can some of the field tests be postponed or performed by mounting the sensor system on a mooring rather than the wave glider? (The integration with the wave glider could still be completed.)

- Will the durafet pH sensor be retained on the pCO₂-DIC system?
- Please examine the budget carefully and identify any items that could be “pre-purchased” in 2019 using end-of-year funds (or at least open a PO prior to year-end). If pre-purchases are possible, notify the M-team and delete those expenses from the 2020 budget request.