



# Sea Grant

## National Sea Grant Office

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### **Program Assessment Team Manual**

Second Cycle  
(March 2005)



# Program Assessment Team Manual

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(Rev. 03/2005)

## I. Role of the Program Assessment Team

The Program Assessment Team (PAT) plays an important role in the overall evaluation process for each Sea Grant program. Sea Grant programs are evaluated by a PAT every four years. A final evaluation by NOAA's National Sea Grant Office will take place in the year following the PAT visit, and will rely heavily on the information gathered by the PAT. The PAT report and recommendations will be used to improve individual program performance, and provide a basis for comparison among programs over the long-term.

Using any and all material available and necessary to conduct its evaluation, the role of the PAT shall be to assess and make recommendations to improve:

- a. The program's overall productivity and accomplishments relative to its strategic and implementation plan and level of support;
- b. The program's overall scientific strength (e.g., the significance of scientific advances, the rigor of the planning process, the level to which available university talent and resources have been brought to bear on program goals and objectives, the success in meeting these goals, and publications and other forms of output);
- c. The productivity and effectiveness of the program's outreach and educational activities;
- d. The effectiveness of the institutional management team in planning and meeting stated goals and objectives, and in providing overall leadership for the program;
- e. The use of internal linkages among the program elements and the ability of the program to integrate program elements to address priorities (e.g., research, education, extension, communications, and management);
- f. The program's position and role in its academic setting;
- g. The program's linkages with other Sea Grant programs, state and regional academic institutions, state, NOAA and other federal agencies, and the private sector;
- h. The program's industrial and user group linkages; and
- i. Considering all the above, the program's potential for growth.

The role of the PAT is not limited to assessment. An important component of each PAT visit will be the recommendations provided in the PAT report. Future program evaluation and merit-based funding decisions will rely on the PAT evaluation and recommendations. The PAT will also play an important role in discussing the Sea Grant program with institutional representatives.

## **II. Program Assessment Team Process**

### **A. Team Composition**

The National Sea Grant Office (NSGO) Director assigns the PAT Chair and Vice-Chair, in consultation with the Chair of the Sea Grant Review Panel (SGRP), in the fall of the year preceding the PAT visit. The PAT Chair, in consultation with the NSGO, then selects the three other members of the PAT.

Prior to their final appointment, the potential non-SGRP PAT members are reviewed with the Sea Grant program solely to assure there are no conflicts-of-interest.

PAT Chair - A senior person with high-level administrative or management experience from academia or the public or private sector who is familiar with Sea Grant objectives and programs.

Two members of the PAT are from the SGRP—one serving as the PAT chair and/or Vice-Chair.

One senior university representative (if not the chair).

Others (as appropriate for the program under review):  
Directors of a Sea Grant program (not in the current cycle);  
Officers of appropriate commercial and industrial entities;  
Directors of institutes, centers, and laboratories;  
Executives of state and federal resource agencies;  
Deans or Associate Deans of other institutions;  
Directors of cooperative extension programs or experiment stations; and  
Recognized practitioners in appropriate fields (research, extension, education, communications, etc.).

National Sea Grant Office (NSGO) Program Officer (PO) and other NSGO staff if appropriate (ex officio).

### **B. PAT Preparation, Structure and Cost Control**

The Performance Assessment (PA) process is designed to evaluate the Sea Grant program and is an intensive period of review and evaluation. The PAT review should be viewed as an interactive process designed to provide information and data to the team. The agenda for and structure of the review should reflect the charge to the PAT (see above, I. Role of the Program Assessment Team) and other important issues provided by the Sea Grant program or the NSGO Director. Sufficient time must be included in the schedule of the review to permit the PAT to deliberate and draft its report.

To minimize costs and provide sufficient time for the PAT interactions and deliberations, only short, well focused, and highly select field trips should be considered during a PAT review.

The PAT is well served by interactions with Sea Grant participants, stakeholders, and university administrators. Sessions in which formal presentations of research, activities, and significant results are included should be compact, and limited in time. When appropriate, these sessions can substitute for field trips.

A well-prepared and complete briefing book is essential to PAT preparations. Programs are strongly encouraged to follow closely the guidelines for the briefing book developed with the Panel and Sea Grant Association (see Appendix F Guidelines for Program Assessment Briefing Books). The guidelines list the required information and suggest formats for presenting information to address the performance benchmarks outlined in the PAT Manual. The Sea Grant program can assume PAT members have read the briefing book prior to the review. Therefore sessions should be planned with this in mind and include a large proportion of time for questions and clarification. As a guideline, all PAT sessions should include 10-20% of the allotted time for questions and answers. This includes the management as well as the scientific, outreach and education sessions.

The Sea Grant Review Panel recognizes the time and effort required in preparing for the PAT review. Yet, a four-day review every four years seems a reasonable amount of time and effort to document performance and accomplishments and consider strategies for continued pursuit of excellence in Sea Grant programs. However, if a program feels a need for longer PAT review, the Director has the option of discussing a longer PAT review with the PAT Chair.

The Sea Grant Review Panel offers the following guidance to help contain the costs of the review without reducing its effectiveness (for more details, see page 12):

- Expensive venues should be avoided.
- Expensive social events, including dinners, are not expected. Instead, for greater efficiency, receptions with poster sessions can be combined. (Often posters would be those of faculty and students that were previously prepared or ones that could be used for other purposes as well).
- Field trips should be used sparingly to communicate specific aspects of a program or to provide context.
- Quality briefing book material depends on content, not on glossy publications. The use of CD-ROMs for auxiliary materials is encouraged to avoid unwieldy volumes of paper.
- Although much is to be gained from personal contact, in the case of highly dispersed participants, user panels may be formed through conference calls, web base conferencing, or video conferencing to reduce travel expenses. These types of conferencing may be a way to engage important industry, government and community leaders who may not be able to devote the time to attend in person.

C. Program Assessment Timeline:

|                                                                                                                                                                                                                                                                                                                                                                                                        |                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| The National Sea Grant Office (NSGO) Director notifies the Sea Grant university of the upcoming PAT review in a letter explaining the PAT and NSGO review process                                                                                                                                                                                                                                      | Fall of year preceding PAT visit                            |
| PAT visit dates set and PAT Chairs appointed                                                                                                                                                                                                                                                                                                                                                           | Fall of year preceding PAT visit                            |
| PAT Chair and NSGO Program Officer consult on PAT arrangements                                                                                                                                                                                                                                                                                                                                         | Fall of year preceding PAT visit                            |
| PAT Chair and NSGO Program Officer begin consulting with Sea Grant Director to set the PAT review agenda                                                                                                                                                                                                                                                                                               | 6 months prior to PAT visit                                 |
| PAT members confirmed and Chair sends letters to PAT members                                                                                                                                                                                                                                                                                                                                           | As early as possible—preferably 6 months prior to PAT visit |
| Travel and on-site logistics arranged                                                                                                                                                                                                                                                                                                                                                                  | 2-3 months prior to PAT visit                               |
| Initial conference call with PAT members                                                                                                                                                                                                                                                                                                                                                               | 2-3 months prior to PAT visit                               |
| Sea Grant Director distributes public notice of upcoming PAT visit and invites written comments to be received 3 weeks before PAT visit ( <b>see Appendix C</b> )                                                                                                                                                                                                                                      | 2-3 months prior to PAT visit                               |
| PAT agenda set in final including names of individuals the PAT will meet with                                                                                                                                                                                                                                                                                                                          | 1-2 months prior to PAT visit                               |
| The briefing books mailed by SG Director to PAT members                                                                                                                                                                                                                                                                                                                                                | 2-4 weeks prior to PAT visit                                |
| Final conference call with PAT members                                                                                                                                                                                                                                                                                                                                                                 | 2-4 weeks prior to PAT visit                                |
| PAT Chair provided written comments submitted in response to public notification of upcoming PAT visit                                                                                                                                                                                                                                                                                                 | 3 weeks prior to PAT visit                                  |
| PAT Chair reviews written comments and may discuss them with the university Sea Grant Director and the NSGO Program Officer                                                                                                                                                                                                                                                                            | 2-3 weeks prior to PAT visit                                |
| PAT review conducted and draft PAT report written                                                                                                                                                                                                                                                                                                                                                      | Week of the PAT visit                                       |
| Draft PAT report revised and distributed to PAT members for comment                                                                                                                                                                                                                                                                                                                                    | 1-2 weeks after PAT visit                                   |
| Final draft PAT report sent to Sea Grant Director to check for minor errors, such as mistakes of fact, misspelled names, information misinterpreted, and related misnomers                                                                                                                                                                                                                             | 2-4 weeks after PAT visit                                   |
| Final PAT report written and reviewed by PAT members and signed off by the chair                                                                                                                                                                                                                                                                                                                       | 1 month after PAT visit                                     |
| The National Sea Grant Office will transmit the report on behalf of the PAT Chair to the Sea Grant program and appropriate university officials. The transmittal letter will inform the Sea Grant Director of the deadline (January 15 <sup>th</sup> of the following year) for submitting to the National Sea Grant Office a response to the PAT report for use at the NSGO final evaluation process. | Upon receipt of the signed PAT report                       |

#### D. The PAT Report and NSGO Final Report

**PAT Report:** Based on the site visit, the PAT shall provide the Sea Grant Program Director (SGD) and the NSGO a comprehensive written report (see Appendix E Guidelines for Formatting and Preparing the PAT report). The PAT report documents the program's strengths and weaknesses, provides specific recommendations for program improvement, and includes the PAT's rating for each of the 14 sub-elements of the evaluation criteria and benchmarks for performance. The PAT report is usually 15-20 pages long and has attachments that include the PAT rating sheet, the agenda for the PAT visit, and the list of the PAT members. The report should also identify any Best Management Practices identified by the PAT (see Appendix D Best Management Practices), along with a list of major program accomplishments made evident during the PAT review. The comprehensive PAT report and the Sea Grant institution's response to the PAT report will be part of the permanent record for the institutional program.

**NSGO Final Evaluation Process and Report:** In the year following the program's PAT visit, the NSGO conducts a final four-year performance evaluation. The seven or eight Sea Grant programs that were evaluated by different PATs in the prior calendar year are considered during a one-week period, typically in February. The criteria and benchmarks used in the NSGO review are identical to those used by the PAT. Effort is taken to assure that all programs are evaluated in a similar manner using the same standard criteria and performance benchmarks listed above and described in detail in the PAT Manual.

The evaluation relies primarily on information provided by the Sea Grant program to the PAT, the PAT report and ratings, and the Sea Grant institution's response to the PAT report. A NSGO Final Evaluation Report summarizes the findings of the NSGO performance review for that Sea Grant program over the last four-year review cycle. In addition to the report, the NSGO provides a performance rating to each Sea Grant program as part of the evaluation. The rating is used to allocate merit and bonus funds in accordance with the provisions of Sea Grant's authorizing legislation. The NSGO Final Evaluation Report is sent to the Sea Grant Director only. A copy of the NSGO Final Evaluation Report is also sent to the PAT members from the Sea Grant Review Panel.

#### E. Background Information for Program Assessment Team Members

##### **Sea Grant Program**

Each Sea Grant program will provide the following background information to the PAT:

1. PAT Briefing Book that includes the following:

##### Section 1. Program Overview

- A. Program Introduction and Overview
- B. Response to Previous PAT Recommendations
- C. Program Accomplishments

##### Section 2. Appendices:

- A. Expected Indicators of Performance
- B. List of Investigators/Projects
- C. List of Publications
- D. Strategic Plans (previous and current)

## E. Implementation Plans

(See details in Appendix F Guidelines for Program Assessment Briefing)

2. Detailed PAT Final Agenda (developed in conjunction with the PAT Chair) that:
  - A. Identifies the purpose of each session, the session leader, and the expected participants,
  - B. Indicates clearly the time set aside for PAT Executive Sessions,
  - C. Includes necessary logistical information the Sea Grant program wishes to convey.

### **National Sea Grant Office**

The NSGO will provide the following background materials to the PAT:

1. Last PAT report
2. Last NSGO Final Report
3. Sea Grant institution's response to the last PAT report (if requested)
4. Topical Assessment Team Reports (if any)
5. Corrective action plans (if any)
6. Other material deemed to be relevant by the NSGO Program Officer

### III. Policy for Program Assessment Team Chairs and Vice-Chairs

**Purpose:** To provide guidelines, duties and responsibilities for chairs and vice-chairs of PATs.

**Introduction:** The National Sea Grant College Program (NSGCP) Act of 2002 (Public Law No: 107-299) is specific in requiring compliance with a merit review process for member Sea Grant institutions based on program evaluation. There is general acceptance of the notion that programs should be rewarded in part on the basis of fair and considered evaluations of program quality. In response to the requirements of the Sea Grant Act, the NSGO has established procedures, criteria and standards of performance for program evaluation. These procedures establish PATs and set forth the responsibilities of site teams in the evaluation process. The NSGO has also prepared this manual for the PAT explaining the role of the team, its make-up and criteria for evaluating the performance of Sea Grant Programs. NSGO policy on the duties and responsibilities of the PAT Chair and Vice-Chair are described below.

**Policy:** In conjunction with the SGRP Chair, the NSGO Director will designate one individual to act as PAT Chair. PAT Chairs may or not be current members of the SGRP. In the event that the chair is not a current member of the SGRP, a current member will be appointed to act as vice-chair. Thus, each PAT will have at least one current member of the SGRP serving as chair or vice-chair.

Assignments of SGRP members to PATs and appointments of chairs and vice-chairs will be in accordance with NSGO policy on program evaluation.

The duties and responsibilities of the PAT Chair are as follows. The chair shall:

- A. Be the primary spokesman for the PAT to the NSGO, officials of Sea Grant institutions, constituent organizations and the general public.
- B. Be responsible for the overall planning and conduct of a PAT site visit.
- C. In consultation with the PO and the local Sea Grant Director (SGD):
  1. Formulate an agenda appropriate for the visit.
  2. Specify a list of background materials to be distributed to PAT members including information requested from the program to be evaluated.
  3. Brief the PAT concerning the conduct of the visit and expectations from them.
  4. Communicate to the local SGD requests for additional information or constituent interviews desired by the PAT prior to or during the visit.
- D. Supervise the conduct of the exit interview with the director and/or other officials of the local Sea Grant institution.
- E. Oversee the process of completing the PAT rating sheet in accordance with NSGO evaluation procedures and benchmarks (Section V.).
- F. Oversee the preparation, review and issuance of the PAT Evaluation Report. All final PAT Evaluation Reports must be signed by the PAT Chair or Vice-Chair (in cases where a Vice-Chair is appointed).

The duties of the chair or of the vice-chair (in the event the chair is not a current SGRP member) include:

- A. Acting as the PAT's principal liaison and spokesman for the SGRP.
- B. Signing, on behalf of the SGRP, the PAT final Evaluation Report.
- C. Preparing a brief informal report to the NSGO Director and to the Chair of the SGRP Committee on Program Evaluation concerning the PAT, its conduct and suggestions for improving the process or effectiveness of Sea Grant program evaluations.

**Discussion:** Accountability for the expenditure of funds is essential to the sound management of any enterprise. Sea Grant has the added requirement to demonstrate its contributions to the national interest in order to make the case for continued investment of public funds in the program's activities. The evaluation of performance, therefore, is absolutely critical to ensure that Sea Grant is a high-quality, relevant and efficient operation whose services and products contribute significantly to NOAA and the nation. Program evaluation serves to enhance performance, identify program impacts and **best management practices**, drive constructive change and provide a basis for funding allocations in the core program. Consequently, it is incumbent on the PAT and its leadership to make every effort to fairly and consistently evaluate program quality.

The evaluation of the performance of academic and research enterprises is a difficult and complex undertaking. Nonetheless, meaningful performance metrics can be developed. In the case of long-standing programs like Sea Grant, it is the cumulative weight of accomplishments and impacts on public policy and economic development that chronicle the contribution of the individual programs, and of the Sea Grant network as a whole, to the national interest. To capture those accomplishments and program impacts is the challenge of both the site team and the program being assessed.

Finally, in a time of limited resources and multiple complex issues involving coastal resource management, it is important that programs plan carefully, prioritize objectives and invest resources for maximum impact. To do that well requires a good management team and a programmatic approach to the delivery of products and services.

The PAT plays a primary role in the continuous improvement of quality and performance in the NSGCP. The PAT visit provides one of the few opportunities for Sea Grant institutions to receive feedback on quality and performance from outside the institution. That feedback is essential to the NSGO as well. The PAT report is critical in this process since it provides the primary record of the program assessment to the program's home institution and to NOAA. The recommendations in the PAT report to the program are vital to enhancing performance. **The listing and discussion of program impacts in the report are critical to establishing the record of performance both for the program and for the Sea Grant Network.** In summary, a thorough, penetrating and fair assessment of individual programs can make all the difference in the future of Sea Grant as a sound investment of public funds.

**Authority:** National Sea Grant College Program Act (Public Law No: 107-299) Sec. 204(d)3; Sec. 209 (b)1.

## **IV. Guidelines for PAT Chairs**

These guidelines have been prepared with the assistance of past PAT Chairpersons and will serve to clarify your role and help you organize. The guidelines have been organized to cover the PAT visit from the planning stage through to the final report.

### **1. GETTING STARTED**

#### **A. Coordination with the National Sea Grant Office**

In consultation with the Sea Grant Review Panel (SGRP), the NSGO Director assigns the PAT Chair and Vice-Chair in the fall of the year preceding the PAT visit. The PAT Chair, in consultation with the NSGO, then selects the three other members of the PAT. Regardless of the date of the PAT visit, the chair should make every effort to touch base immediately with the NSGO Program Officer (PO) assigned to the PAT. The fall SGRP meeting is a good time for the PAT Chair and the NSGO Program Officer to begin the process of organizing the PAT. The chair and program officer should also agree on a time for follow-up discussions following the meeting.

Below are some specific guidelines on items to discuss at the initial meeting with the program officer:

1. Establish how you and the PO will communicate during the course of the year (e-mail, periodic conference calls, etc.). The PO will provide you background material on the program (e.g. publications, omnibus proposal, previous TAT or PAT reports).
2. Discuss the composition of the other members of the PAT. Press the PO to quickly invite and establish the team members. Discuss a PAT review timeline such as the one shown in Section II(B). Add dates as appropriate.
3. Prepare a roster of team members with all pertinent contact information. Send an introductory letter introducing yourself as chair to all the members of the PAT and forward each person a copy of the roster.

#### **B. Initial Contact with the Sea Grant Director**

1. Conduct an initial conference call with the Sea Grant Director and NSGO Program Officer. This call should take place soon after you are appointed chair. The purpose of this call is to introduce yourself and discuss some of the preliminaries. Be prepared to clearly state your objective on what you want to accomplish. In addition you want to provide some guidance to the director on how you would like to structure the agenda and also identify specific groups that you may want to meet with. By this time most directors know you will need to meet with university administrators, members of the program's advisory committees, user group representatives, and government officials, as appropriate. Clarify which groups you want to meet with in closed session.

2. Ask the director to prepare the first draft of the agenda and forward it to you and the PO as soon as possible. Two to three months prior to the PAT you should be well into discussions on the agenda. Discuss public notification of the PAT (see Appendix C). You should also discuss the briefing book, what you would like to have included and agree on a schedule on when it will be distributed to the PAT members. Discuss logistics (where the PAT members will stay, venue for meetings, field visits, etc.). Try to minimize long commuting times from the hotel to the review if possible. See if the university has a van that can be used for transport or make sure arrangements are made for one or two vehicles for the PAT.
3. Let the program know that you will need rooms for PAT executive sessions during the PAT visit. Report preparation requires a room with a conference table and plenty of electrical outlets and/or extension cords. Preferably this should be some place other than the program office or at least somewhat isolated from the program office personnel.

### **C. Tips on Agenda Planning:**

1. The success of a PAT visit partly depends on what you do, whom you talk to, and what you see. The PAT Chairperson has to play a strong role in formulating the agenda. Typically a PAT review requires three full days (not including travel to and from the PAT). In addition, field visits can add up to an additional half to full day. Both time limitations of PAT members and budget constraints generally mean that the agenda should be planned, start to finish, for between three and four days.
2. Be careful about scheduling too many sessions where you are lectured to by individual investigators. One technique, which you might want to consider, is a poster session with principal investigators and/or graduate students combined with reception/refreshments. That way the members of the PAT can interact one-on-one with the investigators and/or graduate students.
3. Be clear about who is the timekeeper. Sticking to the time frames in the agenda is very important and either the chairperson or the Sea Grant Director needs to be able to cut-off presentations.
4. Leave enough time for report preparation!! Try and schedule some time (other than very late in the evenings) during each day of the PAT visit to discuss findings and begin drafting reports. Many PATs are finding they need nearly the entire last day for report drafting and preparation for the final debriefing. Dinners are usually a good time to unwind from the day and discuss findings so be sure to schedule some mealtime for PAT members only.
5. Field Trips: Since time is at a premium during the PAT visit, field trips should only be scheduled when they are the best, or the most efficient, vehicle to provide critical input that would otherwise be unavailable. Depending on the locations for various program activities, you may want to split the PAT members into groups and send them off on different assignments.

## **D. Initial Contact with PAT Members**

Once PAT members are confirmed and the agenda set, conduct an initial conference call with the PAT members and the Program Officer (PO). The following should be accomplished in that call:

1. Introductions. It helps for everyone to introduce himself or herself and share a little about their background. This will help you as chair make assignments for report preparation. PO can distribute PAT member vitae.
2. Review the basic purposes of the PAT visit. Describe the agenda. (If a draft agenda can be sent to the PAT members prior to the initial call, this will facilitate the discussion.) Make it clear that all PAT members are expected to be there for the entire event and should schedule travel accordingly. Explain to the group that they will receive a briefing book on the program and the evaluation criteria prior to the actual PAT visit. Inform the PAT members that on arrival day (sometimes this needs to be a Sunday evening) they will meet in an executive session. The initial conference call is a good time for the chairperson to make PAT assignments. For example, you might assign individual responsibilities for strategic planning, significant results, etc.; or you might assign someone to extension, communications, and research. You need to go over the evaluation process, the performance criteria, and the PAT rating sheet (all in the PAT Manual). Also, discuss any other issues the PAT members may have.

## **E. Logistics**

1. Discuss logistics. Make sure the PAT members realize that the agenda will be very full. Make it clear that all PAT members are expected to stay for the duration of the PAT visit and participate in all activities. Typically, you are on the go from 7am till late evening each day. Make sure PAT members know that if they bring their spouses along, there will be little opportunity for them to spend time together including mealtimes which typically become PAT executive sessions. The PO should explain NOAA travel requirements. Let the PAT members know that it is typically their responsibility to get to the hotel from the airport on arrival, although as travel plans are firmed up, it may be possible to coordinate this somewhat to share a taxi, etc.
2. Find out who will bring a portable computer (Apple or PC? MS Word or WordPerfect?), and how many members are able to help in the typing of the report. This will help the PO determine what resources are needed from the program (extra computers, printers, compatible software, typing assistance). Make it clear to PAT members that the report is completed in draft form before the exit interview.
3. Let PAT members know that on field trip day, dress is usually casual but business attire is appropriate for all other events.
4. Agree on follow-up conference calls as necessary. At a minimum, there should be another conference call with the PAT members after they receive the briefing materials and the PAT Manual, but before they leave their homes for the PAT visit.

A final conference call may include the program's staff, if it would be helpful for final planning. Agree on a time and place you will meet on the evening before the official start of the PAT visit.

## 2. WHEN YOU ARRIVE ON SITE

As chairperson, you will be responsible for shepherding the group along and ensuring that the agenda is adhered to. Your first challenge is to get everyone to the first executive session on arrival day! Set your expectations regarding promptness, etc. This meeting will be the first time many of your PAT members have met and for some it may be a first introduction to the Sea Grant Program. You should begin by reviewing your goals for the PAT visit, including the overall purpose of what is going to be accomplished. It helps to walk everyone through the evaluation guidelines for clarification purposes or just in case someone has questions.

At this initial meeting you will reconfirm assignments for report preparation that were previously made. Make sure everyone is comfortable with his or her assignment. Be sure everyone understands that this is a collaborative effort and that the PAT members will together discuss their findings in all categories prior to the sections of the report being written.

## 3. CONDUCTING THE PAT VISIT

**THE PAT:** As chairperson you are responsible for ensuring that the PAT visit flows smoothly. Be aware that you might have to deal with last minute contingencies (i.e., change in agenda, etc.) once on-site. One of the most important jobs of the chairperson is to give the program director and staff a sense of comfort that you are there to help, that this is their opportunity to "shine" and that you appreciate all the work they have done to prepare for the visit. Program staff may be nervous so the sooner everyone gets comfortable with each other, the easier the process will be. A smile, a sense of humor and a non-intimidating attitude will go a long way in making the PAT visit enjoyable. For that week, the program, and its staff (including the research and outreach in which they are engaged) are the most important priority in your life. Let them know that!

Prior to the PAT visit, you would have already agreed on who will be the timekeeper and keep the program moving along. There will be many places in the agenda, particularly the meetings with university administrators and outside parties, where you will take the lead. When you meet with each of these groups, be sure to lead off each meeting with an explanation of why the group is there and the process involved. Be sure all outside groups know how important their contributions/participation is.

**THE REPORT:** The team should produce a draft report before the end of the PAT visit. This draft should include all sections and recommendations. PAT members can expect that they will leave with a copy of the rating sheet. The PAT report may have a summary introductory section highlighting recommendations of the report as well as any practices the PAT has noted as a "best management practice." (Please reference page 7 and Appendix E for more guidance on the PAT report.)

**THE EXIT INTERVIEW:** Prior to leaving, you and the members of the PAT will conduct exit interview(s) with the program director and appropriate university officials. The PAT should

consider first briefing the program director and other staff members, and then briefing the university officials. Here you will summarize the draft report by providing the rating for each of the 14 sub-elements with justification and recommendations.

**THE SURVEY:** Have all non-SGRP PAT members fill out the PAT survey (p. 61) at the end of the PAT Manual and hand in to you or send in to the NSGO.

#### **4. FOLLOW-UP AND REPORT FINALIZATION**

Immediately upon returning home, the chairperson should send a letter to the program director thanking him/her and the staff for all the effort undertaken by the program.

The chairperson and the PO should have established an agreed upon schedule for report finalization prior to leaving the site. The report should be finalized and sent to PAT members for review, hopefully within two weeks of return. PAT members should have one week to respond to the PO with comments. The chairperson and PO shall coordinate in the event there are substantial follow-up comments from a PAT member that are inconsistent with the direction of the report. The chairperson shall be the final authority in determining if any significant changes are made to the report after PAT members have left the site. The chairperson will sign the report on behalf of the PAT.

The PO shall prepare a transmittal letter to the university and the program that will go with the final signed report. The transmittal letter will encourage the program to submit a written response to the PAT report to the National Sea Grant Office no later than January 15<sup>th</sup>. This will be used in the NSGO's final evaluation process. The final report should be mailed to the program and university approximately four weeks after return from the PAT visit. PAT members should each get a copy of the final transmittal letter and report.

## V. Evaluation Criteria and Benchmarks For Performance

Sea Grant programs are held to a high standard. It is important that Program Assessment Teams conduct a thorough and penetrating review. The fundamental objective is to strengthen and improve the performance of Sea Grant programs. Recommendations and options for improving various program components are strongly encouraged. Truly exceptional attributes should be highlighted and identified as “best management practices” in the PAT report summary.

### Basis for Evaluation

This section of the document describes the evaluation criteria that should be used in assessing the effectiveness of a Sea Grant program. Benchmarks describing expected levels of performance, and indicators to help assess performance, are provided for each of the criteria. The program’s briefing book should address these benchmarks (see Appendix F). The evaluation criteria and performance benchmarks will be used for all Sea Grant programs. Each Sea Grant institution is expected to plan strategically, set goals and define performance objectives, and develop mechanisms for achieving them. A Sea Grant program’s performance in meeting the criteria should be assessed in relation to the program’s strategic goals and the level of Federal Sea Grant funding provided.

There are fourteen criteria to be addressed by the Program Assessment Team organized under four general headings. For the previous Program Assessment cycle, each of the general headings was assigned a weight as an indication of the emphasis to be placed on that area during the evaluation process, and those weights are still appropriate to serve as guidance for the PAT.

|                                                            |              |
|------------------------------------------------------------|--------------|
| <b>Organizing and Managing the Program</b>                 | <b>(20%)</b> |
| ▪ Leadership of the Program                                | (6%)         |
| ▪ Institutional Setting and Support                        | (4%)         |
| ▪ Project Selection                                        | (2%)         |
| ▪ Recruiting Talent                                        | (3%)         |
| ▪ Effective and Integrated Program Components              | (5%)         |
| <b>Connecting Sea Grant with Users</b>                     | <b>(20%)</b> |
| ▪ Engagement with Appropriate User Communities             | (15%)        |
| ▪ Partnerships                                             | (5%)         |
| <b>Effective &amp; Aggressive Long-Range Planning</b>      | <b>(10%)</b> |
| ▪ Strategic Planning Process                               | (4%)         |
| ▪ Strategic Plan Quality                                   | (4%)         |
| ▪ Implementation Plan                                      | (2%)         |
| <b>Producing Significant Results</b>                       | <b>(50%)</b> |
| ▪ Contributions to Science and Technology                  | (10%)        |
| ▪ Contributions to Extension, Communications and Education | (10%)        |
| ▪ Impact on Society, the Economy, and the Environment      | (25%)        |
| ▪ Success in Achieving Planned Program Outcomes            | (5%)         |

## Indicators of Performance

Given the broad scope of Sea Grant programs and the varied array of activities, there are a large number of possible indicators of performance. A Sea Grant “Metrics” Committee was established, and the committee sought input from the Sea Grant Association, the National Review Panel, and the National Sea Grant Office as to the indicators most likely to be useful for local program management as well as program assessment. A subset of those indicators was then identified that would provide a common framework for management and evaluation across all programs. The Committee Report, Indicators of Performance for Program Evaluation, was issued in March 2003. The expectation is that although the presentation and use of these indicators will vary from program to program, having a considerable portion of the information in common will help to ensure a comprehensive and fair assessment of each program. The Metrics Committee report can be found in Appendix B.

Some indicators are identified as “Expected” and some as “Potential.” Expected indicators are intended to provide a minimal common framework for management and evaluation across all programs, and should be available for each Program Assessment. Although the potential indicators would also be useful for management and performance evaluation, it is up to each program to decide whether they will be used. (Note: *Expected indicators are in bold italics*; other potentially useful, but not expected, indicators are in normal font.)

The indicators of performance are intended to be just that – “indications of performance” – and they serve to provide the basic context for the more extensive, on-site review that the Program Assessment Team provides.

## Suggested Considerations for Reviewers

Suggested considerations for reviewers are sets of questions provided to the PAT to facilitate the evaluation process. **These questions are in no way meant to be a required list of topics for the PAT visit.** These lists are provided as a tool for evaluation to supplement and complement the existing evaluation criteria and performance benchmarks.

## **Program Assessment Rating Sheet**

At the conclusion of the Program Assessment, the PAT will provide a rating for each of the program evaluation sub-elements. The ratings will be indicated on the Program Assessment Team Rating Sheet and are intended to represent the consensus of the Team. Together with the PAT report, these ratings will provide the findings of the PAT to the Sea Grant program.

Each sub-element will be rated in one of four categories:

**Needs Improvement** – In general, performance does not reach the benchmark for this sub-element. The PAT will identify specific problem areas that need to be addressed.

**Meets Benchmark** – In general, performance meets, but does not exceed, the benchmark for this sub-element.

**Exceeds Benchmark** – In general, performance goes beyond what would be required to simply meet the benchmark for this sub-element.

**Highest Performance** – Performance goes well beyond the benchmark for this sub-element and is outstanding in all areas.

The Program Assessment Team Rating Sheet is presented on the next page followed by a detailed discussion of each of the evaluation criteria to assist the PATs in applying the criteria in a comprehensive and fair manner across all the Sea Grant programs.

# PROGRAM ASSESSMENT TEAM RATING SHEET

## ORGANIZING AND MANAGING THE PROGRAM

### SUB-ELEMENTS

- Leadership of the Program
- Institutional Setting and Support
- Project Selection
- Recruiting Talent
- Effective and Integrated Program Components

|                      |                    |                      |                        |
|----------------------|--------------------|----------------------|------------------------|
| Needs<br>Improvement | Meets<br>Benchmark | Exceeds<br>Benchmark | Highest<br>Performance |
|----------------------|--------------------|----------------------|------------------------|

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## CONNECTING WITH USERS

### SUB-ELEMENTS

- Engagement with Appropriate User Communities
- Partnerships

|                      |                    |                      |                        |
|----------------------|--------------------|----------------------|------------------------|
| Needs<br>Improvement | Meets<br>Benchmark | Exceeds<br>Benchmark | Highest<br>Performance |
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| ___ | ___ | ___ | ___ |

## EFFECTIVE AND AGGRESSIVE LONG-RANGE PLANNING

### SUB-ELEMENTS

- Strategic Planning Process
- Strategic Plan Quality
- Implementation Plan

|                      |                    |                      |                        |
|----------------------|--------------------|----------------------|------------------------|
| Needs<br>Improvement | Meets<br>Benchmark | Exceeds<br>Benchmark | Highest<br>Performance |
|----------------------|--------------------|----------------------|------------------------|

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## PRODUCING SIGNIFICANT RESULTS

### SUB-ELEMENTS

- Contributions to Science and Technology
- Contributions to Extension, Communications and Education
- Impact on Society, the Economy, and the Environment
- Success in Achieving Planned Program Outcomes

|                      |                    |                      |                        |
|----------------------|--------------------|----------------------|------------------------|
| Needs<br>Improvement | Meets<br>Benchmark | Exceeds<br>Benchmark | Highest<br>Performance |
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Sea Grant Program: \_\_\_\_\_

\_\_\_\_\_

PAT Chair Signature

\_\_\_\_\_

Date

## **ORGANIZING AND MANAGING THE PROGRAM**

Sea Grant programs are located within or work closely with university systems that are sites of major research and administrative activity. Each program must be managed to build capability in the university system to address coastal problems and opportunities as well as to maximize the recruitment of outside financial and human resources to address Sea Grant problems and issues. Programs must carry out an exemplary peer review and evaluation process for research, education and outreach projects and select those that receive consistently high marks for merit, application, and priority fit. The review must take into account how well a prospective project targets an issue. Every Sea Grant program has a variety of talent available for program development. The best efforts will involve the best talent. The program must have mechanisms in place to identify and attract the best talent available. It is imperative that research projects, extension programs, communications and education activities, and management use state-of-the-art methods and work together to advance their disciplines and achieve results.

### **● Leadership of the Program**

#### **Expected Performance Benchmark –**

- The recognized abilities of the program management team for effectiveness, performance, objectivity and contributions result in requests for their participation in a leadership capacity in influential coastal groups at the local, state, and national levels.
- Program management functions as a true team and continuously strives to improve the operation of the program.
- The source of matching funds is diverse and the program management is entrepreneurial in expanding the program with additional support from state and federal agencies, the private sector, and other sources.
- The program maintains an active and well-chosen advisory group(s), which helps focus programmatic issues.

#### **Indicators of Performance –**

- **Response to previous PAT recommendations**
- **Management team composition and responsibilities**
- **Percentage of time the director and staff devote to Sea Grant (FTEs)**
- **Advisory Boards membership and function (expertise, meeting schedule, recommendations, meeting agendas, attendance, diversity, and turnover); Staff structure, interactions, and physical location in state**

#### **Suggested Considerations for Evaluators --**

- What is the director's philosophy on leadership of the program?
- Who makes up the management team? Does it include extension, communications and education leaders? Where are the team members located? How many of these positions does the director exercise authority over?
- Does the team exert leadership at the local, state, regional, and national levels?
- How does the team work together to run the program? Who is responsible for what? What supporting staff do they have?
- How are programmatic decisions arrived at?

- What outside advice does the program utilize?
- What type of tracking is in place for: Research projects? Fiscal matters? Outreach activities? Accomplishments and benefits?
- What has the management team done to improve program operations since the last review?
- How is the management of the program viewed: By the faculty? By university administrators? By outreach personnel? By state and federal agencies? By constituent groups? Others?
- How effective has the team been in developing private sector matching funds?
- How effective has the program management been in obtaining funds other than Federal Sea Grant or required match? Do others approach the program with projects and programs they wish to support through Sea Grant?
- Does the program provide professional development opportunities to its staff?

- **Institutional Setting and Support**

The emphasis for this criterion should be placed both on the effectiveness of the reporting relationship for the Sea Grant program within the institution and on the overall level of support provided by the institution. In general, though, the expectation is that the program reports to the highest possible level within the institution.

**Expected Performance Benchmark –**

- The program is located at a high enough level within the university to enable it to operate effectively within the institution and externally with all sponsors, partners, and constituents.
- The institution provides the support necessary for the Sea Grant program to operate efficiently as a statewide program.

**Indicators of Performance –**

- **Setting of the program within the university or consortium organization and reporting structure**
- Program infrastructure (space, equipment, available resources)

**Suggested Considerations for Evaluators –**

Physical Location and Reporting Relationship:

- Where is the program located within the institution? To whom does the director report?

Propriety/Effectiveness of Location and Reporting Relationship:

- Is this location appropriate for the program's structure and scope? Are there any obvious problems with its location and reporting situation?

Institutional Support (Quantity and Quality)

- What support does the institution give the program? Are the level of support and the services provided adequate? Support for management costs? Services by other administrative functions? Any obvious support problems? Does the institution provide effective support including advocacy for the Sea Grant program?

## ● **Project Selection**

### **Expected Performance Benchmark –**

- There is a set of procedures in place that:
  - ensures quality control of all projects;
  - safeguards against conflict of interest in peer review and project selection procedures;
  - provides for the best and most appropriate projects to be included in the program in the context of program priorities as determined by the program's strategic and implementation plans.
- Projects are well planned, innovative and integrated across research and outreach.

### **Indicators of Performance –**

- **Process to develop RFP priorities**
- **Preproposals and proposals submitted, and institutions represented/institutions available in state; Review process including composition of panels**
- RFP distribution; External peer review (numbers and quality), ratings/scoring analysis, quality of feedback to PI; Conflict of interest policy and practice
- Time from submission to decision
- Technology support for submission and review process
- Feedback from PIs and/or institutions

### **Suggested Considerations for Evaluators –**

- Is the program following NSGO guidelines for merit peer review of research projects? (The Program Officer should explain the NSGO guidelines.) If there are deviations, do they have valid justification?
- How is the quality of extension, communications and education programs maintained? Improved? How are these programs reviewed? By whom? When was it last done? What were the recommendations?
- What do others think of the quality of the Sea Grant program's research program and publications? The quality of outreach programming and products?
- Are communications and extension integrated with research where possible?
- Is the communications program working with print and broadcast media?

## ● **Recruiting Talent**

### **Expected Performance Benchmark –**

- Programs have exceptional talent available to them from the institutions in their state to complement the talent of their own staff, and procedures exist to locate and attract that talent as needed to meet programmatic goals and objectives.
- University protocols exist to allow inclusion of the best available talent.
- The program consistently recruits and builds teams of the best talent available to address important issues.
- As needs and opportunities arise, intellectual talent from the best possible sources is encouraged to band together to improve interdisciplinary research, education, and outreach capabilities.

- Opportunities to work with other Sea Grant programs and agencies are continuously explored and utilized to address regional and inter-institutional research and issues.

#### **Indicators of Performance –**

- **New vs. continuing projects and principle investigators (PIs); Recruitment of PIs /institutions**
- **Relative success of home institution**
- **Success in national competitions; Regional/multi-program projects**
- Multi-investigator projects
- Leveraged project funding

#### **Suggested Considerations for Evaluators –**

- Are efforts made to familiarize investigators throughout the state with Sea Grant as a program and describe its unique philosophy and approach?
- Are Sea Grant program and NSGO announcements and requests for proposals distributed to all potential investigators?
- Are special efforts made to encourage promising new investigators to participate? Investigators from minority institutions?
- Does the program have a mix of senior and junior investigators?
- What is the turnover in investigators?
- What do investigators think of Sea Grant as a source of support?
- Are there issues or problems that need an interdisciplinary approach?
- If so, has the program developed the appropriate teams?
- Have these teams been successful in reaching the project's goals? If not, why not?
- What are the views of participants of such programs? In their view, was the project successful?
- Would they choose to work with the Sea Grant program again? What changes would they make if they were to do the project again?
- Does the program have projects carried out jointly with other institutions? Do the research, extension, communications and education portions of the program explore opportunities to work with and share talent with other Sea Grant programs? With NOAA or other federal or state agencies? Other organizations?

#### • **Effective and Integrated Program Components**

##### **Expected Performance Benchmark –**

- Each component of the program (research, extension, communications, education, and management) demonstrates effectiveness.
- Each component of the program uses the most appropriate and effective methods and technology.
- All components strive to develop new and innovative approaches to achieve the program's goals.
- Each program component has areas of national leadership in its own right.
- Research results are consistently reported in peer-reviewed publications.
- Outreach projects consistently accomplish stated outcomes.
- Program components, when added together, often result in outcomes and impacts greater than the sum of the individual contributions.

### **Indicators of Performance –**

- **Integration of outreach and research program elements**
- **Core Federal and matching funds (last 8 years) and distribution among program elements**
- **National competition funding (NSIs, pass through awards)**
- **Additional Program Funding through grants, contracts and development activities**

### **Suggested Considerations for Evaluators –**

- Given the resources available to each component (research, extension, communications, education, and management) to accomplish its mission, what has been its productivity and effectiveness?
- Have all the outreach and education programs used state of the art tools of the trade?
- What, if any, areas of national leadership do each component exhibit?
- Do the components form an integrated team in addressing a priority issue?
- Are there barriers to the team working together effectively? Institutional? Managerial? Resources? Other?
- Are there examples of the whole exceeding the sum of the parts?
- Is the distribution of funds consistent with the National Sea Grant allocation of funds policy ["It is expected that as an operating guideline, not less than 45% or more than 65% (ca. 50%), of base plus merit funding (federal portion) will be distributed for research and education projects awarded by an open, peer-review competitive process in accordance with Sea Grant policy for such competitions." (*Procedures and Funding Allocation Policies for FY 1998 and Beyond.*)]? If not, why not?

## **CONNECTING SEA GRANT WITH USERS**

Effective information transfer occurs most often when the end users are involved in the planning and development stages, the program has an extension process in the field, and there is a mechanism for follow-up with users. The program management team should interact at the state, regional, and national policy levels. At the university level, the Sea Grant program must occupy an appropriate administrative and leadership position and be involved in decision-making.

### **● Engagement with Appropriate User Communities**

#### **Expected Performance Benchmark –**

- The Sea Grant program develops programs that address priority user needs.
- The Sea Grant program follows through with effective extension/outreach programs to implement results and findings.
- The institution understands and supports Sea Grant's role through its management practice and procedures in regards to outreach and education.
- The Sea Grant program initiates and maintains contact with appropriate user communities for sustained periods.
- Constituents are included in planning, technology transfer and information dissemination.

#### **Indicators of Performance –**

- **Leadership by staff on boards and committees**
- Informational meetings/training sessions held and number of participants
- Individual consultations with clients/users
- Involvement with industry (number of businesses aided)
- Demographics of contacts and efforts
- Requests for information; Local business and stakeholder needs surveys
- User feedback (mechanisms and tracking)

#### **Suggested Considerations for Evaluators –**

- Has the program provided specific examples and/or case studies of effective engagement with user needs?
- Has the program defined who its target users are? Are they identified in the program's strategic and implementation plans?
- Are needs assessments conducted through both formal and informal processes?
- How does the program maintain its contacts with its varying user groups?
- Are publications sent to the National Sea Grant Library per Sea Grant Publication Distribution guidelines? Are the program's submissions timely and complete?
- What methods and tools does the program use to transmit findings and results? How effective are they? Is the program in the forefront of using new technologies to improve their information transfer capabilities?
- What role do users have in reviewing the progress of ongoing activities? Presenting results and findings in the ways most useful to them?
- How well are communications and extension efforts integrated with users?

- Is the research faculty directly involved with users? If not, why not?
- How satisfied are the users? Are they getting what they need? When they need it? If not, why not?
- How do programs assess their effectiveness? How do programs determine when to turn successful programs over to others?
- Does the program have flexibility to adjust and react (in terms of time & resources) to unanticipated events that require new research and outreach activities?

## ● **Partnerships**

### **Expected Performance Benchmark –**

- Opportunities to work with other Sea Grant programs, agencies and organizations are continuously explored and utilized to address local and regional issues.
- The program develops opportunities for strong in-kind or matching support for outreach.

### **Indicators of Performance –**

- **Effective local, regional and national interactions/collaborations (specifically including NOAA) programs**
- **Leveraged funding from partners (NOAA, other Federal, state and local) for the program**
- Leveraged funding from partners (NOAA, other Federal, state and local) for PIs

### **Suggested Considerations for Evaluators –**

- How were the partnerships developed? What role did program management play?
- Do the partners provide a significant contribution in funding or human resources?
- Could the effort have succeeded without the partnership?
- Has the program established long-term relationships that continue to be productive?
- Has the program developed effective relationships with NOAA? If so, what are they?
- How effective has the program been in developing private sector matching funds?
- How effective has the program management been in obtaining funds other than Federal Sea Grant or required match? Do others approach the program with projects and programs they wish to support through Sea Grant?

## EFFECTIVE AND AGGRESSIVE LONG-RANGE PLANNING

The most effective programs will utilize a sound strategic planning framework that includes advice from users, and constituency and advisory groups throughout every level and phase of the planning and implementation processes. Effective and ongoing collaboration with all stakeholders in the plan's development, approval, implementation, monitoring and evaluation is required to ensure that the plan is based upon and reflects priority needs at the state, local and/or regional level.

The biennial implementation plan builds on the strategic plan and provides specific performance milestones for that two-year period. Additionally, the implementation plan is a natural outgrowth and extension of the strategic plan. The implementation plan must definitively integrate policy, planning, outreach, research, education and management. The strategy must also be translated into action in a priority-directed fashion.

The standards summarized in the benchmark, indicators and suggested considerations sections below are intended to serve as a core baseline. The PAT will assess performance that is deemed to be over and above the core indicators accordingly.

### ● **Strategic Planning Process**

#### **Expected Performance Benchmark –**

- The establishment of a planning process must be evident.
- The planning process must demonstrate the involvement and endorsement of constituency and advisory groups (i.e. Advisory Board, university representatives and others) at every level; this involvement and endorsement should include conferring with stakeholders prior to the drafting and development of the plan, and continuing through plan approval, implementation, monitoring and evaluation.
- Evidence must be presented that shows that the plan is subject to frequent review.
- The plan reflects local, state and/or regional needs.
- The plan demonstrates ties to the NSGO and NOAA Strategic Plans.
- The plan's priorities and selection process are clearly articulated.

#### **Indicators of Performance –**

- **Stakeholder and staff involvement (numbers and duration) and integration of input into planning**
- **Transparent priority-setting process**
- Endorsement by Advisory Board; acknowledgment by University
- Ongoing monitoring of plan and reassessment of priorities

#### **Suggested Considerations for Evaluators –**

##### **Organization/Planning/Development:**

- What was the strategic planning and development process?
- How were stakeholders identified? Internal stakeholders (communicators, educators, extension team)? External stakeholders (environmental managers, state/federal agencies, user groups)? How were they involved?

- Did the planning process identify the organization’s strengths, weaknesses, opportunities and threats?
- What role do users have in setting the direction and priorities for the program’s activities?
- Was input from stakeholders sought prior to drafting the plan?
- What mechanisms were used for determining priorities in the plan?
- Who wrote the plan?

**Approval/Implementation/Monitoring/Evaluation:**

- Who reviewed it?
- When was it last updated?
- Who has endorsed/approved it?
- What role do users have in the approval, implementation, monitoring and evaluation process?

● **Strategic Plan Quality**

While the above-referenced “process” section primarily focused on methodology and how the plan was developed, the intent of this section is to assess the plan’s qualitative aspects.

**Expected Performance Benchmark –**

- The plan at least contains and specifically addresses the following core elements: vision, goals, objectives, priorities, benchmarks, and expected outcomes.
- The plan is not so rigid as to preclude responding to issues and opportunities as they arise.
- Planning is done with other institutional and agency resources in mind, and complementary or supplementary programs are planned as appropriate.
- The plan includes both short and long-term programmatic and management goals.
- The plan demonstrates links from state to regional to national priorities.

**Indicators of Performance –**

- **Short to long-term programmatic and management goals established**
- **Clear articulation of priorities**
- Demonstrated link from state to regional to national priorities

**Suggested Considerations for Evaluators –**

- Does the plan contain a vision, specific goals and performance targets (vision, goals, objectives, priorities, benchmarks, and expected outcomes)?
- Does it integrate all aspects of the program, research, extension, communications and education?
- Is it a “safe” plan or does it set challenging goals and strive for breakthroughs to achieve them?
- Is it a risk-taking plan? (Reference the risk-taking strategies in the PAT report)

- **Implementation Plan**

**Expected Performance Benchmark –**

- The biennial implementation plan builds on the strategic plan, and provides specific performance milestones for that two-year period.
- The implementation plan is based on, and is a natural outgrowth and extension of the strategic plan.
- The implementation plan must be specific in terms of priority setting, how each goal and objective will be implemented and evaluated, and if possible, includes a strategy for allocating resources.
- The implementation plan clearly describes the how, what, when, and who for the implementation of each strategy that is delineated in the strategic plan.
- The implementation plan must effectively integrate all of Sea Grant core components (i.e., policy, planning, outreach, research, education, and management).
- The implementation plan establishes mechanisms for encouraging creativity and imagination to rise up from investigators.

**Indicators of Performance –**

- Distribution of investment/effort to meet strategic plan priorities
- Identification of short to long-term benchmarks; Work plan developed for integration of program elements
- Program development and rapid response procedures and strategies to meet emerging issues
- Evaluation process

**Suggested Considerations for Evaluators –**

- Does the implementation plan follow the established guidelines for Sea Grant program implementation plans? (**Appendix A. PAT members, review this attachment**)
- Are strategy and tactics clear?
- Does it contain ambitious milestones for accomplishments and meaningful measures of success?
- Does it allow for risk-taking with the possibility of failure?
- Have those who have to implement the plan bought into it?

## **PRODUCING SIGNIFICANT RESULTS**

The program must be managed to produce significant results. A basic mission of Sea Grant is to integrate research and outreach to address and significantly impact the identified needs of its constituency, or the region, and/or the nation.

### **● Contributions to Science and Technology**

#### **Expected Performance Benchmark –**

- Management procedures ensure the consistent production of significant contributions to science and engineering.

#### **Indicators of Performance –**

- **Number and list of publications (journal articles, book chapters, reports etc)**
- **Invention disclosures and patents**
- Technologies and tools developed
- Theories or approaches accepted widely
- Number and list of presentations by principle investigators
- Citation analysis for selected projects

#### **Suggested Considerations for Evaluators –**

- What are the contributions to science and engineering: new understanding products, processes, and technology?
- How were they made: Seminal publications? Patents? Other? What is the area of impact: Local/State? Regional/National? International?
- What has been Sea Grant's role in producing this contribution?
- Who are the partners, if any? What has been their role?
- Would constituents/partners support these claims?
- Are the publications of peer reviewed research papers commensurate with the size of the research program?

### **● Contributions to Extension, Communications and Education**

#### **Expected Performance Benchmark –**

- Extension and Communications programs and products are consistently high-quality and have documented impacts on the target audiences.
- Educational programs maximize the development of highly-trained students and enhance their potential for career development.

#### **Indicators of Performance –**

##### **Extension -**

- **Sponsorship of education programs and target audience participation**
- **Internal evaluation processes for products and programs**
- **Staff and product awards**
- Targeted audience and evaluation for all products
- Changes in behavior of target audiences

#### Communications -

- **Number, list and diversity of products produced (print, audio, video, web, etc)**
- **Staff and product awards**
- Media interest (calls, “experts quoted,” press clippings)
- Relationship of products to other Sea Grant program elements

#### Education -

- **Numbers of graduate and undergraduate students supported, including fellowships and internships**
- **Staff and product awards**
- Numbers of theses completed
- Tracking of graduate students after Sea Grant support
- Use of products for K-12 education (classroom enhancement, curriculum development), and informal learning (free-choice learning)
- Numbers of teachers and/or students using Sea Grant materials in curriculum

#### **Suggested Considerations for Evaluators –**

- For the stated objectives, did extension produce significant results?
- For the stated objectives, did communications products contribute to significant results?
- For the stated objectives, did the education program produce significant results?
- What role has the Sea Grant program had in increasing the diversity of students in marine programs?
- Where have Sea Grant supported graduate students gone following completion of their studies? What have they accomplished?
- How successful has the program been in competitions for: Knauss fellows? Industrial fellows? Sea Grant/NOAA Fisheries Fellows? Other fellows?

#### • **Impact on Society, the Economy, and the Environment**

#### **Expected Performance Benchmark –**

- Management procedures ensure the consistent production of significant results that will have widespread economic, environmental and/or social benefit, and address the priority needs of the program’s constituency.
- Impacts of the program occur not only in the state and regions, but also nationally and even internationally.

#### **Indicators of Performance –**

- **Descriptions of the most important impacts**
- **Positive environmental impacts and economic and social benefits resulting from changes in behavior of individuals, businesses, and institutions**
- Businesses and jobs developed after contact
- Best management practices developed in response to extension involvement

#### **Suggested Considerations for Evaluators –**

- What resources has the program had to work with to achieve these benefits? Dollars? Human resources?

- What are the economic benefits claimed? How are they presented: Sales? Profits? Jobs?
- New or expanded industries, companies, businesses? Cost savings/ productivity improvements?
- What are the social benefits claimed? How are they presented: Improved management of resources? Better-informed public/constituent group on a major issue? Changes in constituent group/public opinions/behavior? Better public health/safety? Other?
- Would constituents/partners support these claims?
- What is the area of impact: Local/State? Regional/National? International?
- Is there a quantitative analysis to support the claims?
- What has been Sea Grant's role in producing this benefit?
- Who are the partners, if any? What has been their role?

● **Success in Achieving Planned Program Outcomes**

**Expected Performance Benchmark –**

- The program's strategic goals and planned outcomes are consistently met.

**Suggested Considerations for Evaluators –**

- Did the program accomplish what they set out to do in their appropriate strategic and implementation plans?
- How does the return on Federal investment—relative to outputs (products) and outcomes/impacts—compare with the stated goals of the local program?
- Although the strategic plan is a “living” document, it is expected to form the basis for most program activities. Were the areas of emphasis consistent with those laid-out in the previous strategic plan(s)? Were there clear justifications for any shifts away from those planned priorities?
- Does the program have a process for evaluating their success in meeting planned outcomes? How are those evaluations used?

# APPENDIX A

## Implementation Plan Guidelines

*(From the memo issued to the members of the Sea Grant Association from Anders Andren, Chair, Implementation Plan Committee: dated February 21, 1996, and from follow-up to the Toll Committee Report in 2002, and incorporating additional guidance from the benchmarks of the PAT Manual.)*

### Guiding Principles

1. Program implementation is the institutional Sea Grant responsibility. Therefore, implementation plans must be prepared and promulgated by each institution every two years. Each program will have its mix of local, regional, and national priorities.
2. Sea Grant is a science-based, issue-oriented program. Therefore, each implementation plan, based on a good strategic plan, must integrate policy, planning, outreach, research, education, and management.
3. Strategy must be translated into action in a priority-directed fashion.
4. Develop and describe how, what, when, and who for the implementation of each plan.
5. Establish mechanisms for encouraging creativity and imagination to rise up from institutional faculty and investigators.

In developing implementation plans, it is important to:

- Demonstrate mechanisms for achieving objectives.
- Develop mechanisms for evaluating success.
- Set goals and objectives – and discern the difference between these.
- Make maximum use of resources.
- Take into account program evaluation.

### Suggested Outline for Writing a Sea Grant Implementation Plan

- I. Review of Program Strategic Plan in the Context of NOAA/NSGCP Strategic Plan
  1. Mechanisms for the establishment of strategic planning
  2. How the program strategic plan relates to the NSGCP plan
  3. Context of the institutional and territorial characteristics
  4. Involvement of all levels of faculty, staff, and constituents
- II. Development of an Implementation Plan and Implementation of the Program

1. Process of selection of priorities (how, who, and when)
2. If possible, include a strategy for allocating resources.
3. Identify milestones and expected outcomes for the implementation of program goals and objectives for the two-year period
4. Identify program elements and their context, as well as personnel needed
5. Time frame for implementation
6. Integration of program elements toward implementation
7. How will you move toward implementation
8. Describe your evaluation process and how you will measure success or lack thereof
9. Degree of interaction and integration with other programs (both outside and inside the network)

### III. Review, Revision, and Results

1. Describe the timing and mechanisms of review of your program's progress and results
2. Mechanisms for revising the program during the implementation phase
3. How will you synthesize, package, and disseminate results?

### IV. Nationalization of the Implementation Plan

1. Identify those elements that have national and regional application
2. Relate your implementation plan to national needs and show how it reaches users
3. Suggest national or regional efforts to implement results

## APPENDIX B

### Indicators of Performance for Program Evaluation National Sea Grant College Program – March 2003

#### I. INTRODUCTION

Evaluation of Federally sponsored programs has turned to the use of metrics of various types to assess program management, output and impact. The use of both quantitative (numerical) and qualitative indices has been implemented in the business and academic sectors often with mixed results and indeed, at times, considerable controversy. It seems clear, however, that metrics of some sort will be a part of evaluative procedures in the future.

The NOAA National Sea Grant College Program is a highly successful model of a federal-state partnership with local, university-based management of complex programs that integrate research outreach and education for the public good. Beginning in 1998, the Sea Grant network implemented a far-reaching evaluation process that relies upon annual reports and reviews that culminates in an extensive program assessment (PA) conducted by a team of external reviewers every four years.

At the conclusion of the first round of these assessments, a committee comprised of members of the Sea Grant National Review Panel and Sea Grant Association was convened to examine the PA process and to recommend ways to improve its effectiveness. Among the many recommendations from that committee<sup>1</sup> was to develop of a set of network-wide indices for performance and program management and a set of ground rules for their implementation. This report is the product of that effort. To start:

- Metrics must be useful for Sea Grant programs to evaluate and improve their function and impact at the local level. Ideally, appropriate, “insightful metrics” when applied nationwide, should lead to Network improvement as a whole. Hence there should be overall consistency tempered with a clear recognition that the strength of Sea Grant lies at the local level and that innovations are developed there.
- Metrics must respond to statutory requirements for the use of federal funds (i.e., GPRA etc.)<sup>2</sup> and should provide convincing evidence that the federal investment is meeting reasonable expectations. The Sea Grant network should strive to be a model for proactive use of evaluation procedures and indices.
- Metrics should be used in a manner that reflects on cumulative program performance. However, it should be recognized that such measures, in and of themselves, are unlikely to be definitive as to overall program performance. Nonetheless, if taken in context, often

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<sup>1</sup> Review and Recommendations: Sea Grant program Evaluation Process. Report of the Sea Grant Review Panel’s Program Evaluation Committee. J.H. Toll, C. Fetterolf, J. Kramer, R. Malouf, N. Robinson. J. Weiss 2001

<sup>2</sup> Evaluating Federal Research Programs. Research and the Government Performance and Results Act. National Academy Press 1999

with other evaluative tools developed for the Sea Grant program assessment process, they can provide credible evidence about management and performance and changes therein over time. The process of evaluation can give clear direction for improvement and innovation at all levels of the Network.

## **II. CREATING VALUE THROUGH THE SEA GRANT ENTERPRISE**

The development of any metrics should start with a clear concept of the intent of the program to be evaluated and the intent of the evaluation process itself. There should be a definitive link between the collective “vision” of Sea Grant and the importance of evaluation to furthering that vision.

The Sea Grant enterprise creates “value” by catalyzing scientific discovery, applying the products of that process to local problems and extending those products to stakeholders. The accomplishments of the Sea Grant Network coalesce to impact regional and national issues consistent with the broad goals of NOAA as they reflect the needs of coastal America. Metrics should be accurate measures of the value created with regard to:

- Production of Scientific Knowledge
- Development of Applications and Approaches Required for Sustainable Management of Coastal Resources
- Economic Enhancement and Product Development
- Enhanced Public Awareness to Improve Decision Making on Coastal Issues
- Capacity Building in Coastal Science and Education

Indicators or metrics of various types should provide evidence that shows how local management of core program functions (research, outreach and education) leads to tangible outputs and impacts over short to long-term timeframes. When considered in the context of local priorities and constraints, and when appropriately linked to Network-wide goals, metrics of various types provide a tool to evaluate how well local management is meeting its own goals and those of the federal sponsor. In addition, they provide a level of consistency for evaluating certain portions of programs—in particular, by providing Program Assessment (PA) teams, the NSGO and others with a basic context for examining local program management in comparison to local strategic goals and Network peers.

## **III. DEVELOPING INDICATORS FOR SEA GRANT PROGRAMS**

### **A. Guiding Principles**

- Metrics must accurately describe and measure relevant aspects of the Sea Grant enterprise and be useful to managers at the local and national levels.
- Metrics should be robust and should be designed in a manner that allows for broader analysis— particularly they should enable reasonable comparisons to be made for individual programs over time and between appropriate program peers.

- Metrics should be readily attainable—specifically they should reflect ongoing “internal” self-assessment efforts and accumulate continuously.
- Accumulation and analysis of metrics should not be prohibitively expensive or overly burdensome on programs.
- Metrics need to be evaluated periodically to determine their effectiveness

## 1. Definitions and Rationales

In the most basic sense, metrics are simply measures. They are a set of “tools” that local programs may use as they build the case for specific management decisions. These measures provide baseline data for each program and synthesis of this type of information is an important part of the definition of programmatic accomplishment over time. In addition, they provide a context for assessors as they attempt to understand these decisions, their outcomes and impacts. They also play a role when comparisons are made among peers.

Numerical metrics are often used as a measure of resources dedicated to a given project and the basic products produced (return on investment). Hence the following definitions<sup>3</sup>:

*Inputs: (...the total of resources necessary to production, including raw materials, use of machinery, and manpower, which are deducted from output in calculating assets and profits...)*

Inputs to any Sea Grant program start with the financial resources provided by core (Omnibus) awards from National Sea Grant. However, it is important to realize that most programs now manage a diverse portfolio of financial resources including state and local support, grants and contracts as well as funds raised through development efforts. Analyses of programmatic inputs can give an indication of the entrepreneurial nature of program management. An analysis of inputs must also consider programmatic infrastructure, for example, dedicated or shared FTE’s or even space.

In total, these inputs are the “enabling” resources each program has and provide the context within which evaluators should examine management and program accomplishments. This context is important when comparisons are made over time and among programs. This also emphasizes that metrics must be considered with a clear understanding of local institutional, and financial settings. It also implies that there is a balance of what local and NOAA expectations are. Evaluative tools should account for how each program manages this balance.

*Outputs: (...the quantity or amount produced; the product of any industry or exertion, viewed quantitatively; the result given to the world...)*

Outputs are defined as near to long-term products, activities and actions. Specific examples can be found in all sectors of a Sea Grant program (research, education and outreach). Outputs are often measurable quantitatively and are indicators relevant to a program’s “base-productivity” over various timeframes. Alone, outputs simply represent the products produced and/or

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<sup>3</sup> Oxford English Dictionary

constituencies reached in a given timeframe—as such they are quite useful. However, in the broader context of the overall mission of Sea Grant programs, they may be ineffective as indicators of greater (tangible) outcomes and impacts.

Outputs respond to a wide variety of factors over different time frames. Of particular relevance is the fact that they are very responsive to local capability and shifts therein. Perhaps most importantly—particularly in the research arena—they reflect the nature of the field of study and therefore the nature of the investments made by a program in any given interval. For instance, some fields lend themselves to much higher publication rates than others. Similarly, outputs from an outreach effort are often calibrated to the needs of a particular constituency and evolving strategies to reach them. Output from outreach efforts is perhaps more “fluid” than that from research efforts.

In the best sense, quantitative indices of output are tools for local programs. They allow program managers to track changes, highlight progress and spot potential problems. They provide a context for focusing on areas that may need or alternatively, are responding to special attention. They can provide a basic tool for local programs to evaluate investments across all sectors of a program. To be most effective for PA teams and the NSGO, metrics of output must be evaluated with a sliding temporal scale that reflects at a minimum the current and last PA cycle.

Those examining indices (at the local and national level) should recognize that variations might in fact be far more significant than steady state. Changes may reflect proactive management decisions or potential problems that will manifest themselves over short to long-term time frames.

*Quantitative metrics/indices should be used in a temporal sense and should be analyzed in the context of “trends and changes therein”.*

## **2. Non-Numerical Metrics**

Collectively, investments (inputs) lead to products (outputs) that accumulate to produce outcomes and impacts in response to specific planning goals designed to address a program mission. In most cases these higher order, cumulative results cannot be quantified in a strict numerical or quantitative sense. Outcomes and impacts are therefore evaluated qualitatively.

*Outcome: (a consequence; ...that which comes out of or results from something; a visible or practical result, effect, or product)*

Outcomes are the demonstrable results of a program’s outputs. These may be both short- and long-term. Outcomes may be an end point of a specific activity or may be part of a series of linked activities. Often they reflect efforts that integrate multiple elements within a local program (research, education and outreach). Programs “surround” issues using a suite of resources and capabilities. Examples of outcomes might include the adoption of a new management strategy based upon scientific data, a new manufacturing process, or the adoption of a new curriculum element. These are tangible results or products that build from the output of management decisions.

Impacts: (...*an impelling or compelling effect*)

Impacts are higher order, usually long-term results of a program's activities that have significant scientific, economic or social benefits. Impacts may involve behavioral, policy or economic changes. Seminal contributions to science are considered impacts especially if the research findings lead to major progress in a particular field, implementation of new technologies or have a substantive bearing on an economic or societal issue. While breakthroughs do occur, it is important to realize that impacts are developed over the long term—both in the scientific arena and through sustained, integrated efforts by Sea Grant programs themselves.

Demonstrating these impacts requires more complex analysis and synthesis of multiple lines of evidence of both a quantitative and qualitative nature. Some Sea Grant programs have developed methods to articulate impacts by using project “phylogenies” to track an investment from its start as a research project through its many uses and products. Other programs analyze impacts by looking at broader portfolios of activities that cut across multiple efforts in all sectors of a program. Both approaches (and others) are valid ways to document impact.

It is important to note that an accounting of economic impacts—particularly in the case of research contributions to environmental problem solving—remains complex and a relatively new endeavor<sup>4</sup>. Developing evidence of such returns on the Sea Grant investment requires careful, long-term tracking that extends across all programmatic sectors. Implementation of metrics for economic gain will invariably require additional training for local programs to be effective.

## **B. An Investment Model and the Utility of Metrics**

Sea Grant programs manage a set of diverse resources with the intent of maximizing the return on the federal, state and local investment. The impacts of a Sea Grant program during a given time period reflect the results of cumulative decisions made over extended durations. While any single investment should be linked in a clear manner to local priorities, there should be a general recognition that the nature of investments may well have an unpredictable time and outcome horizon. All programs “balance” short and long-term investment decisions. With that in mind, “simple” numerical measures of output should be reported on an ongoing basis, while broader accomplishments are noted as they become apparent. Successful programs will ultimately maintain strong productivity by active/adaptive management that builds outcomes through engagement of the best talent. Sustained contributions are made through management actions that focus this talent in a strategic manner to meet local, regional and national needs.

It is reasonable to expect, however, that the cumulative returns from program activities over time will yield significant outputs on the individual level and accrue to tangible impacts. This model accentuates the importance of strategic planning and ongoing assessment of progress towards satisfying stated goals. Therefore, metrics become most important as a tool to see how individual programs are meeting those goals and adapting to new challenges.

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<sup>4</sup> Economic Valuation of Natural Resources. A Handbook for Coastal Policy Makers. D. Lipton, K. Wellman, I. Sheifer and R. Weiher. NOAA Coastal Ocean Program 1995

### **C. Normalization and Comparisons**

The evaluation of complex, research-heavy enterprises cannot and should not be easily reduced to quantitative measures. Therefore, a credible performance review process must include subjective weighting or judgment in evaluation. This is presently done both by PA teams comprised of experienced, knowledgeable individuals versed in judging performance of academic enterprises and the NSGO in the annual merit review process. The subjective evaluation of qualitative indicators emphasizes that great care must be taken to ensure consistency throughout the entire process regardless of the composition of the PA teams and the time frame of the assessment. For instance, while the evaluators and Network must continue to learn from each evaluation, programs that come first during the implementation of metrics should not be judged on a different scale, objective or subjective, than those that come later.

The legislative mandate articulated in the 2002 reauthorization stresses the importance of comparison among all programs in the network. Ultimately metrics will play a role as competitive rating of programs is implemented. It is clear that a methodology for normalizing outputs should be considered as a way to ensure an equitable analysis of outputs and impacts. Resources are perhaps the most easily understood normalization factor and a number of possible calculations can be made for all output metrics, e.g., publication rate per project, or publication rate per federal dollar for research products. However, great care must be taken in applying any normalization factors as the final indices developed may only peripherally represent the impact of the collective effort. Perhaps a better way to frame this issue is more simply ask,

“What was the return on the federal investment and how does that return—relative to outputs (products) and outcomes/impacts— compare with the 1.) stated goals of the local program and 2.) return from similarly-sized programs within the Sea Grant network?”

It is important to note that the issue of need should not be considered a factor in comparisons. Simply put, all programs have local needs that far exceed the resources that are available to address them. How they address the needs with the resources available is the relevant point of comparison.

NSGO and PA teams should analyze the information presented by each program on an annual and quadrennial basis, respectively. As stated earlier, there should be recognition that trends and changes therein are probably far more important than a snapshot of performance in any given year. In addition, these analyses should take into account the fact that the mix of all “enabling resources” (federal and nonfederal) will differ both on a program-by-program basis and quite possibly on a temporal basis in individual programs. State support, entrepreneurship and leveraging are all important and all contribute to the ability of programs to produce and sustain impacts. In the best sense, there is a synergy between federal and non-federal funds. However, the primary comparison must be made on the basis of the core federal investment and expectations for what should be accomplished with that investment. Discerning how non-federal support leverages this investment to yield added value (products, outcomes and impacts) is an important task for evaluators. Entrepreneurship and the ability to sustain state support and leverage the federal investment are strong indicators of competitiveness, performance and the value placed on the local program by its stakeholders. With this in mind, it might be argued that

support of this type is more properly characterized as an outcome from rather than an input to a given program.

This stresses that the assessment must use the metrics carefully and be cognizant of all the contextual elements at play—financial and infrastructure-related. But, merit allocations ultimately must focus on the return on investment from the federal award.

#### **D. Competition and Building Network Capability**

Program rating and financial (merit-based) allocations are clear drivers in the current legislation. Strong competition will drive programs to do more and excel. Incentives can be developed to ensure that best management practices and innovations are shared and fostered in all programs.

Analysis of metrics and peer performance, when shared lends itself to the process of benchmarking<sup>5</sup> as a way to examine practices and processes within and between organizations to obtain information for self-improvement. This can be a powerful tool to catalyze institutional change and advancement. Benchmarking may be accomplished in a competitive or a consortium-based manner. The former uses available data to compare peer accomplishments with the intent of absorbing new procedures and gaining a competitive advantage. The latter uses a mutually agreed upon or collaborative process among peers committed to growth and improvement and is a model employed in higher education. Both approaches provide a systematic way of learning from others and changing what individual programs do by searching for and sharing best practices developed in other organizations.

It should be noted that in an ideal sense benchmarking should not be used to assess merit or in a punitive sense—rather it is a process to foster program improvement and growth. Therefore, while comparisons are made by the external evaluators, benchmarking efforts should originate at the local level, as programs form operational groups designed learn from each other. The focus of these consortia may be quite specific, e.g., a group of programs committed to learning how to increase the impact of communications efforts, or a group interested in developing better means to track and assess economic impacts of patents. Similarly there may be Network-wide efforts that are initiated. What evolves in this regard will ultimately depend on the quality of the data (metrics) programs report and the willingness of programs to share both positive and negative experiences.

#### **IV. SUGGESTED MEASUREMENTS**

There have been a number of analyses of the use of metrics for science. Geisler (2000)<sup>6</sup> has summarized much of this work and provides a broad context for their use. While there is considerable debate regarding the utility of metrics for science and academic programs<sup>78</sup> a number of these are applicable to Sea Grant programs and indeed most are already in use in some form across the Network. The listings presented here are the product of several information gathering efforts including a survey of Sea Grant programs, discussions with the NSGO and

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<sup>5</sup> Benchmarking for Higher Education N.J. Jackson and H. Lund Open University Press 2000

<sup>6</sup> The Metrics of Science and Technology. E. Geisler 2000 Quorum Books

<sup>7</sup> Effective use and Misuse of Performance Measurement. B. Perrin. 1998 Am. Journal Eval. 19:337-379

<sup>8</sup> Performance Measures Redux. I. Feller 2002 Am. Journal Eval. 23:435-452

examinations of available literature on evaluation protocols for a variety of research, outreach and education programs. With few exceptions, none of the measures proposed should come as a surprise to local programs. Many should be readily attainable. Realistically however, others will require additional outlays of time and effort.

Quantitative information provides part of the foundation for evaluating programs. These measurements help PA teams understand the context within which programs operate in a given state by giving them a basic set of measures to examine. Synthesis of these measurements by programs, in part, provides a rationale for how investment decisions are made and can help determine if impacts are achieved. Therefore, these should be seen as a set of tools that local program leaders use first. Programs will undoubtedly chose different subsets as they build their cases for active management and leadership on all levels. However, given the core mission of Sea Grant it is anticipated that a number of these measurements will be used and reported by all programs in some manner. Hence they are part of the “body of supporting evidence” that will show the connection between management decisions and outcomes and impacts. Clearly, they are not the only tools that local programs or PA teams will use as they perform internal and external reviews, respectively.

*The intent is to provide a tool chest that is locally relevant and nationally consistent*

### **A. Quantitative Measurements**

All programs collect data to some degree and most have moved in the direction of electronic reporting systems that track progress and outputs across all sectors of the program. The quantitative measures suggested here should easily articulate with those efforts and when developed, with a national reporting system. Ideally, indices are designed to accumulate on a yearly basis and should be part of annual reports. They lend themselves to syntheses that should enable programs to compare trends in inputs and outputs over 4-8 year intervals. All programs will collect and report many of these indices, however there may be considerable latitude in the degree of analysis that each program will choose to do. For instance, while it is anticipated that all programs will report numbers of scientific publications and the journals they occur in, some programs may decide that a more detailed citation and keyword analysis of a particularly important (i.e., groundbreaking) paper is warranted to demonstrate the impacts of the research. The decision to pursue further analyses rests with the local program as they develop the linkages between these data and the qualitative demonstration of impacts.

### **B. Qualitative Measurements**

Outcomes and impacts are almost always presented in qualitative terms and represent a synthesis of many different types of information and data. Quantitative metrics provide a foundation. However, different lines of evidence—often of a subjective nature—need to be considered. The relative mix of objective and subjective information will vary depending upon the relative mix of resources a program has devoted to generating a given impact and the manner in which the program chooses to develop its case. The reality is that there probably is not, nor should there be, a set formula for presenting a case for a programmatic impact. With that in mind, there are guidelines that should be followed to facilitate the review process. A two-tiered approach is

recommended.

Programs should present short descriptions of the most important impacts generated on a yearly basis in their annual reports. As appropriate these should be collated and synthesized for the quadrennial PAT visit. These synopses should provide sufficient detail in no more than one-half to one page to establish a case for an impact. Program should have broad latitude to decide how many to put forward in any review period but should also be mindful of the requirements and spirit of the guidelines to limit summary documentation for PA visits.

As stated in the PA guidelines, each “case” for an impact can be validated by a program through the use of various analytical and synthetic tools. This more detailed second-tier may employ any number of methods and will be much more substantial. Phylogenies and portfolios are techniques that have been mentioned previously and a variety of other tools exist to assess outcomes and impacts (e.g., outcome mapping<sup>9</sup>, process-outcomes models<sup>10</sup>, etc.).

Programs should incorporate relevant numerical data and develop creative ways to present the information recognizing that concise presentations may well have the greatest impact on the evaluators. In addition, presentations that capture input from stakeholders (testimonials and attributions of various sorts) are valid ways to highlight impacts. Programs should have latitude to explore these and develop procedures that best suit their needs. A one-size fits all approach in this regard would be counterproductive. However, there is an underlying expectation that the evaluators will be consistent in how they evaluate and ultimately compare programs based upon these presentations. Local programs should document impacts recognizing that all will be evaluated with regard to the following questions:

- Is there a logical progression from investment to impact (i.e., a demonstrable cause and effect relationship)?
- Is the subjective information presented (testimonials and other forms of attribution) logical and plausible?
- Is there sufficient quantitative data, where appropriate, to support the conclusion of an impact? · Does the impact (whether small or large) justify the investment made to achieve it?

Over the course of the past PA cycle Sea Grant programs have demonstrated the ability to articulate impacts in many areas relevant to the mission of creating value from scientific discovery and applications. Hence it is safe to say that most programs are comfortable with defining how short and long-term efforts have influenced major scientific approaches, aided in the development of policy decisions, enhanced education at all levels and yielded products that have influenced various stakeholders. A much more difficult task for most if not all programs has been to define the economic implications and impacts of these efforts. Geisler (2001)<sup>11</sup> lists several examples of the economic value created by scientific and technological investments. These include:

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<sup>9</sup> Outcome Mapping Building Learning and Reflection into Development Programs S. Earle, F. Carden and T. Smutylo. International Development Research Center, 2001

<sup>10</sup> See #7 above

<sup>11</sup> See #3 above

- New and improved products and the revenues from sales thereof
- Cost savings due to new and improved processes in manufacturing
- Revenue from licensing patents
- Improved market share in existing markets
- Opening up new market share
- Savings due to more efficient use of resources
- Cost savings, sales and profits due to shorter “time to market”

There may be cases where data are readily available to support impacts of this nature. For instance, an outreach effort that improves procedures at a seafood processing plant and leads to higher quality product and increased sales would lend itself to an analysis of this sort. These and a variety of other indices of economic impacts should be considered by programs and where it is possible to accumulate and/or estimate data of sufficient quality, should be reported. As stated earlier, the economic implications of environmental research may be far more difficult to evaluate and report.

Finally, it is important to detail the role that the program has played in generating economic returns. Was the contribution the primary enabling factor, a critical component or one of many that led to the final impacts? In addition, in many cases an outside Sea Grant source should be able to vouch for the figures reported.

### **C. List of Indicators**

Given the broad scope of Sea Grant programs and the varied array of activities, there are a large number of possible indicators of performance. The committee sought input from the Sea Grant Association, the National Review Panel, and the National Sea Grant Office as to the indicators most likely to be useful for local program management as well as program assessment. A subset of those indicators was then identified that would provide a common framework for management and evaluation across all programs.

The expectation is that although the presentation and use of these indicators will vary from program to program, having a considerable portion of the information in common will help to ensure a comprehensive and fair assessment of each program.

The list of indicators of performance is organized into four categories. Within each of the four categories, some indicators are identified as “Expected” and some as “Potential.” Expected indicators are intended to provide a minimal common framework for management and evaluation across all programs, and should be available for each Program Assessment. Although the potential indicators would also be useful for management and performance evaluation, it is up to each program to decide whether they will be used.

Note:

- Expected indicators are in *bold italics*
- Other potentially useful, but not expected, indicators are in normal font

## **1. Indicators for Program Management**

**Managing the Program** – *Response to previous PAT recommendations; Management Team composition and responsibilities; Percentage time Director and staff devote to SG (FTEs); Advisory Boards membership and function (expertise, meeting schedule, recommendations, meeting agendas, attendance, diversity, and turnover); Staff structure, interactions, and physical location in state*

**Institutional Setting** – *Setting of the program within the university or consortium organization and reporting structure; Program infrastructure (space, equipment, available resources)*

**Project Selection** – *Process to develop RFP priorities; Preproposals and proposals submitted, and institutions represented / institutions available in state; Review process including composition of panels; RFP distribution; External peer review (numbers and quality), ratings/scoring analysis, quality of feedback to PI's; Conflict of interest policy and practice; Time from submission to decision; Technology support for submission and review process; Feedback from PIs and/or institutions*

**Recruiting and Focusing the Best Talent Available** – *New vs. continuing projects and PI's; Recruitment of PI's/institutions; Relative success of home institution; Success in national competitions; Regional/multi-program projects; Multi-investigator projects; Leveraged funding in projects*

**Institutional Program Components** – *Integration of outreach and research program elements; Core Federal and matching funds (last 8 years) and distribution among program elements; Leveraged funding from partners (NOAA, other Federal, State and local) for the program; National competition funding (NSIs, pass through awards); Additional Program Funding through grants, contracts and development activities; Leveraged funding from partners (NOAA, other Federal, State and local) for PIs*

## **2. Indicators for Connecting with Users**

**Constituent Involvement in Planning** – *Local business and stakeholder needs surveys; User feedback (mechanisms and tracking)*

**Contact with Appropriate User Communities** – *Leadership by staff on boards and committees; Informational meetings/training sessions held and number of participants; Individual consultations with clients/users; Involvement with industry (number of businesses aided); Demographics of contacts and efforts; Requests for information*

**Partnerships** – *Effective local, regional and national interactions/collaborations including with NOAA programs*

**Implementation** – *Number, list and diversity of products produced (print, audio, video, web, etc); Internal evaluation processes for products and programs; Staff and product awards; Targeted audience and evaluation for all products; Media interest (calls, "experts quoted,"*

press clippings); Use of products for public education (classroom enhancement, curriculum development); Relationship of products to other SG program elements; Numbers of teachers and/or students using Sea Grant materials in curriculum

### **3. Indicators for Planning**

**Planning Process (Input) – Stakeholder and staff involvement (numbers and duration) and integration of input into planning; Transparent priority-setting process;** Endorsement by Advisory Board; acknowledgement by University  
Ongoing monitoring of plan and reassessment of priorities

**Plan Quality (Goals, Objectives, Etc.) – *Short to long-term functional and management goals established;*** Demonstrated link from state to national priorities

**Plan Implementation (Strategy and Tactics) – *Distribution of investment effort to meet strategic plan priorities; Identification of short to long-term benchmarks; Work plan developed for integration of program elements;*** Program development and rapid response procedures and strategies to meet emerging issues; Evaluation process

### **4. Indicators for Achieving Significant Results**

**Contributions to Science and Engineering – *Number and list of publications (journal articles, book chapters, reports etc); Invention disclosures and patents;*** Technologies and tools developed; Theories or approaches accepted widely; Number and list of presentations by PI's; Citation analysis for selected projects

**Contributions to Education – *Numbers of graduate and undergraduate students supported, including fellowships and internships; Sponsorship of education programs and target audience participation;*** Changes in behavior of target audiences; Numbers of theses completed; Tracking of graduate students after Sea Grant support

**Socio-economic Impact – *Descriptions of the most important impacts; Positive environmental impacts and economic benefits resulting from changes in behavior of individuals, businesses, and institutions;*** Businesses and jobs developed after contact; Best management practices developed in response to extension involvement

**Success in Achieving Planned Program Outcomes – Self-assessment**

## APPENDIX C

### Public Notification of PAT Visits

- Sixty or more days prior to the beginning of visitation by a Sea Grant PAT, the SGD of the program to be reviewed shall issue a public notice that the program will be reviewed on DATES by a Program Assessment Team (PAT) appointed by the Director of the National Sea Grant College Program. The notice will invite such persons to submit written comments on any aspect of the program or its work by DATE (3 weeks prior to the PAT visit) to either: NAME, Chairman, Program Assessment Team, c/o Program Director, STATE Sea Grant Program, ADDRESS, or. to NAME, NSGO Program Officer, National Sea Grant College Program, NOAA R/SG, 1315 East-West Highway, Silver Spring, MD 20910.
- Suggested avenues of communication are: email or first class mailings to those on the program's normal e-mail and other notification lists; publication of an article or notice in the program's newsletter and/or magazine; publication of an article or notice in the institution's newsletter, general-circulation newspaper, or magazine, and notification on the program's and institution's web pages.
- Immediately following the deadline for receipt, the comments shall be sent by express to the PAT Chair. The PAT Chair shall discuss the comments immediately with the Program Director and Program Officer, and with the PAT at an appropriate time. The PAT Chair may discuss the individual comments with the responder prior to, during, or following the PAT visit. At the Chairman's discretion, the comments may be summarized during the PAT's exit meeting with the institution's administrators. The chairman should include a summary of the comments in the PAT report as appropriate.

## APPENDIX D

### Best Management Practices

#### Identification of Best Practices/Best Management Practices (BMPs)

During the program assessment, the PAT is asked to identify best management practices (BMPs). The Sea Grant Review Panel adopted a resolution at their April 2002 meeting recommending that the NSGO annually identify best management practices and distributes them throughout the Sea Grant network. Adoption of best management practices by programs could lead to improvements in performance, effectiveness, or more efficient use of funds.

- To help guide the identification of BMPs during the next cycle, the Panel has recommended a definition for Best Management Practices -

**"An exemplary product, practice, or procedure developed or used by a Sea Grant program and not in common use by other programs, which may be utilized or modified by other programs to make these programs stronger."**

- The Panel also recognized a possible danger of overemphasizing BMPs and wanted to make it clear that Sea Grant programs should be under no obligation or expectation that BMPs be adopted, nor should there be any evaluative metric related to BMPs at future PATs. The idea is simply to identify relevant BMPs and to share this information with all Sea Grant programs.
- During a program assessment there shall be a time scheduled and reserved to identify BMPs. The responsibility for identification should be shared among the PAT, program personnel, and the Program Officer. These practices shall be highlighted in an identified section of the PAT report.

# APPENDIX E

## Guidelines for Formatting and Preparing the Program Assessment Team (PAT) Report

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### Report of the National Sea Grant Program Assessment Team's Review of the XXXXX Sea Grant College Program Dates of Review

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Chair, Program Assessment Team

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Date



**Report of the National Sea Grant  
Program Assessment Team's  
Review of the  
xxxx Sea Grant College Program**

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## INTRODUCTION

(Section to be prepared by NSGO Program Officer)

The Program Assessment Team (PAT) review of the xxxx Sea Grant (CSG) Program took place from *enter PAT visit dates*.

The PAT members included:

|                                                |                                                           |
|------------------------------------------------|-----------------------------------------------------------|
| Name (PAT Chair)<br>Affiliation<br>City, State | Name<br>Affiliation<br>City, State                        |
| Name<br>Affiliation<br>City, State             | Name<br>Affiliation<br>City, State                        |
| Name<br>Affiliation<br>City, State             | Name (NSGO Program Officer)<br>Affiliation<br>City, State |

Prior to the beginning of the PAT visit, and in conformance with National Sea Grant guidelines, the xxxx Sea Grant issued a public notice of the upcoming PAT visit by inviting interested parties to send written comments to the PAT Chair. The public notice was distributed by means of xxxxxxxxxxxxxxxxxxxx. The PAT Chair received xxx letters in response to the public notice. (*Characterize the letters e.g., “Most of the letters were highly supportive of the xxxx Program. A few letters raised issues, which were either covered in the course of the review or were deemed to be minor in consequence.”*)

The PAT review took place (*describe the PAT location venues: campuses, site visit locations, etc.*).

During the review, the PAT met with (*brief description e.g. identify panels of stakeholders, university administrators, researchers, management staff, etc.*). The PAT also benefited from poster sessions (*e.g. name specific topics, or with researchers, extension staff, and graduate students*).

The report of the PAT follows the guidelines of the Program Assessment Team Manual (National Sea Grant College Program, April 2004). The Program Assessment Team focused on how well the xxxx Sea Grant Program met the four Sea Grant evaluation criteria and performance benchmarks in the areas of: 1) Organizing and Managing the Program; 2) Connecting Sea Grant with Users; 3) Effective and Aggressive Long-Range Planning; and 4) Producing Significant Results. Each of these four evaluation criteria has between two and five sub-elements, 14 sub-elements in total. Within each of these areas, the PAT report discusses xxxx Sea Grant’s research, education, outreach, and management efforts; presents the findings and recommendations of the PAT for each sub-element, and assigns one of four possible ratings to each of the 14 sub-elements: “Needs Improvement,” “Meets Benchmark,” “Exceeds Benchmark,” or “Highest Performance.” A summary of the ratings can be found in the “Program Assessment Team Rating Sheet” attached to this report (p. xx).

PAT Report -- The PAT Report is the single most important record of the evaluation of a SG program's performance over the past four years. It serves as the official documentation of the findings of the PAT and the PAT's recommendations to improve the program. The PAT Report is used not only to assess performance of individual programs but also to compile a record of performance by the Sea Grant Network as a whole. **For these reasons, it is critically important that the report contain clear explanations of the reasoning behind each of the PAT's recommendations and a substantive and comprehensive listing of the major impacts that the program has had during the four-year period being reviewed.**

The body of the report is drafted on-site by members of the PAT under the direction of the PAT Chair and with the assistance of the NSGO Program Officer. The goal is to have the draft written and an initial reading by PAT members with suggested revisions agreed to by PAT members before the debriefing.

Format -- After the introduction section (prepared by the NSGO Program Officer), the structure of the body of the PAT Report follows in order of the four evaluation criteria and each of the 14 rating-elements. A WORD software template for the Report will be available at the PAT through the NSGO Program Officer. The Report template will have section headers, which clearly identify the evaluation criteria and the specific rating element being addressed. The PAT's consensus rating for the element is given as part of the header information. The expected performance benchmark from the PAT Manual is also stated to give readers a clear understanding of the expected performance for each section. (See example below.)

Findings and Recommendations – The importance of the Report, as the documented record of performance, requires that a convincing narrative be written to support both the findings of the PAT and the recommendations to improve the program.

Findings/Rating -- The narrative under each of the 14 rating element sections must provide the reader a clear understanding of the PAT findings leading to a particular rating for that element. A sufficient level of detail is necessary to give a reader the PAT's reasoning behind each rating. It should also be said that the top rating, "Highest Performance", requires the same level of documentation that the lowest rating, "Needs Improvement", would take.

Recommendations - The same is true about the documentation of recommendations. Each recommendation must flow from a reasoned statement of the underlying circumstances or situation giving rise to the PAT's recommendation. The narrative should also provide the PAT's thoughts on why the recommendation would lead to an improvement. The recommendation should be set out and highlighted in the text. Some PAT reports have provided a summary list of all PAT recommendations somewhere, usually upfront, in the report. One downside of this is that the recommendations can be read without the context and understanding of the reasoning behind it.

Major Program Accomplishments – During the program assessment, the PAT is introduced to many different program accomplishments. The major accomplishments should be succinctly listed in a separate section of the PAT Report.

Best Management Practices -- During the program assessment, the PAT is asked to identify best management practices (BMP). A BMP is defined as an "An exemplary product, practice, or procedure developed or used by a Sea Grant program and not in common use by other programs, which may be utilized or modified by other programs to make these programs stronger." BMPs should be highlighted in the appropriate section of the PAT Report. (See appendix D) A summary of all BMPs is included at the end of the report.

Attachments

PAT Rating Sheet – A PAT Rating Sheet (in the PAT Manual – no weights are shown) signed by the Chair and dated on the last day of the PAT review is attached as an appendix at the end of the Report. (Following the debriefing, a copy of the same is left with the SGD and appropriate University official following the debriefing on the last day.)

Agenda - The final PAT agenda is included as an appendix at the end of the Report following the PAT Rating Sheet

Example of Report Header for each of the 14 rating-elements

**I. ORGANIZING AND MANAGING THE PROGRAM**

**Leadership of the Program**

**RATING: Highest Performance**

*Expected Performance Benchmark –*

- *The recognized abilities of the program management team for effectiveness, performance, objectivity and contributions result in requests for their participation in a leadership capacity in influential coastal groups at the local, state, and national levels.*
- *Program management functions as a true team and continuously strives to improve the operation of the program.*
- *The source of matching funds is diverse and the program management is entrepreneurial in expanding the program with additional support from state and federal agencies, the private sector, and other sources.*
- *The program maintains an active and well-chosen advisory group(s), which helps focus programmatic issues.*

In this section, be sure to include how well the Sea Grant Program responded to the previous PAT recommendations.

**Narrative statement of PAT Findings relative to the indicated rating**

*Narrative statement supporting the recommendations, if any*  
*BMPs identified, if any*

**Institutional Setting and Support**

**RATING: Meets Benchmark**

*Expected Performance Benchmark –*

- *The program is located at a high enough level within the university to enable it to operate effectively within the institution and externally with all sponsors, partners, and constituents.*
- *The institution provides the support necessary for the Sea Grant program to operate efficiently as a statewide program.*

*Continue as above to complete all 14 sub-elements*

## **MAJOR PROGRAM ACCOMPLISHMENTS**

It is encouraged for the PAT Chair to list in bullet format the top 3-5 accomplishments demonstrated during the PAT Review.

## **BEST MANAGEMENT PRACTICES**

### **ATTACHMENTS**

PAT Rating Sheet

PAT Agenda

## APPENDIX F

### Guidelines for Program Assessment Briefing Books

(May 9, 2003)

#### I. Introduction

The Toll Committee's report, '*Review and Recommendations: Sea Grant Program Evaluation Process*,' made several recommendations related to the issue of the time spent in preparing for the Program Assessment Team (PAT) review and the excessive size of the briefing books prepared. Specifically, the recommendations were:

*1. In preparing for the second round of Program Assessments, Sea Grant Directors should be encouraged to focus primarily on the program's accomplishments since the previous PAT evaluation. (Research that started earlier, but had impacts during this time, should be included.)*

*2. Sea Grant Directors should be encouraged to seek brevity in their briefing for the PAT review. The report need not be more than about 25 pages of text (not counting one-pagers and project phylogenies). They should present their accomplishments briefly, in a manner that is readily accessible. Information should be presented systematically to give a picture of the program as a whole. Summary data should be included on the number of pre-proposals, the review process, the number of reviewers, the number of projects funded, and the mean size of grants awarded. Brochures, booklets, newsletters, and other publications should be made available to the PAT during their visit and/or mailed to them separately ahead of the visit, but need not be included in the briefing books.*

Based on these recommendations, guidelines were developed for a PAT briefing book that would meet the Toll Committee's recommendation of "brevity" and be focused on program performance since the previous Program Assessment. These guidelines were distributed to the Sea Grant Network for comment in March 2003. The Sea Grant Review Panel took the opportunity at their April 26, 2003 meeting to clarify the issue of length for the briefing books by passing unanimously the following resolution:

*"The Panel places a premium on brevity with reports of 25 pages or less preferred; reports shall not exceed 35 pages, excluding an appendix of up to 10 pages including indicators and other issues of import at the option of the Sea Grant Program.*

*The following items may also be included as additional appendices and do not fall within the page limits. Once again, brevity is preferred.*

- List of investigators/projects*
- List of publications*
- Strategic plan*
- Implementation plan*
- Specific responses to PAT chair requests for additional information*

*Supplemental materials may be distributed at the review, but should not become part of the review material forwarded to the National Sea Grant Office.”*

The briefing book guidelines, presented below, were revised in response to the comments received and to be consistent with the Review Panel resolution. They provide opportunity for the Sea Grant Program to introduce itself to the PAT, discuss its response to the previous PAT review, and provide information on program accomplishments and impacts. In addition, the guidelines call for the Sea Grant Program to provide the PAT members information on a standard set of indicators of performance related to the four benchmark criteria – long range planning, program management, connecting with users, and producing significant results. The performance indicators in the guidelines were developed from the final report of the Metrics Committee, and they are a mix of quantitative and qualitative information. All programs are expected to provide information to the PATs on these indicators, and they may also choose to address any of the many others discussed in the Metrics Committee report. Possible formats for the indicators are suggested, but the information may be presented in any way that the program feels would be effective.

## **II. Content**

The briefing book for a Sea Grant Program Assessment will be made available to the PAT prior to the on-site review in order to provide a focused overview of the program and its accomplishments. It is anticipated that the program will provide additional information during the PAT review. The briefing book should include the following information:

### **Section 1. Program Overview (25 pages or less preferred, maximum 35 pages)**

- A. Program Introduction and Overview
- B. Response to Previous PAT Recommendations
- C. **Program Accomplishments and Impacts** – Impacts and results of program activities that have significant scientific, environmental, economic or social benefits. Impacts may involve behavioral, policy or economic changes and may impact individuals, businesses, and institutions. Seminal contributions to science are considered impacts especially if the research findings lead to major progress in a particular field, implementation of new technologies or have a substantive bearing on an economic or societal issue. While the focus should be on the time since the last PAT (five years for the second round of reviews, but normally four years), some important impacts are developed over the long term — both in the scientific arena and through sustained, integrated efforts by Sea Grant programs — and they may be presented in a variety of formats including phylogenies or portfolios.

### **Section 2. Appendices:**

- A. **Expected Indicators of Performance and Other Issues of Import** (10 pages or less) – There is no standard or best format for presenting the indicators of performance. Some or all the indicators may be presented as part of the discussion in Section 1. An example of how the information might be presented within ten pages is included in the next section of these guidelines.
- B. **List of Investigators/Projects**
- C. **List of Publications**

- D. Strategic Plans (previous and current)
- E. Implementation Plans

### III. Possible Format for Appendix A. Expected Indicators of Performance and Other Issues of Importance

There are many ways that information regarding the expected indicators of performance can be presented in the briefing book and during the PAT review. The following outline is intended only to provide an example of how this information might be organized in the briefing book appendix; it is anticipated that the presentation will be tailored to suit the needs of each individual program.

#### I. Organizing and Managing the Program Indicators:

##### A. Leadership of the Program –

1. Management Team composition and responsibilities (0.5 page narrative / organization chart)
2. Percentage time Director and staff devote to SG (FTEs)
3. Advisory Boards membership and function (expertise, meeting schedule, recommendations) (0.5 page)

##### B. Institutional Setting and Support –

1. Setting of the program within the university or consortium organization and reporting structure (0.5 page wire diagram)

##### C. Project Selection –

1. Brief description of the process used to develop RFP priorities (0.5 page)
2. Number of Preproposals and Full Proposals submitted, and institutions represented / institutions available in state

|                | 1 <sup>st</sup> Biennial Cycle | 2 <sup>nd</sup> Biennial Cycle | Total |
|----------------|--------------------------------|--------------------------------|-------|
| Preproposals   | #                              | #                              | #     |
| Full Proposals | #                              | #                              | #     |
| Institutions   | #                              | #                              | #     |

3. Brief description of the review process including composition of review panels (0.5 page)

##### D. Recruiting Talent –

1. New vs. continuing projects and PI's
2. Recruitment of PI's/institutions
3. Relative success of home institution
4. Success in national competitions
5. Regional/multi-program projects

|                                   | Yr 1 | Yr 2 | Yr 3 | Yr 4 | Total |
|-----------------------------------|------|------|------|------|-------|
| New projects                      | #    | #    | #    | #    | #     |
| Continuing projects               | #    | #    | #    | #    | #     |
| New PIs                           | #    | #    | #    | #    | #     |
| Success of home institution       | #    | #    | #    | #    | #     |
| New institutions                  | #    | #    | #    | #    | #     |
| Success in national competitions  | %    | %    | %    | %    | %     |
| Regional & multi-program projects | #    | #    | #    | #    | #     |

##### E. Integrated Program Components –

1. Integration of outreach and research program elements (0.5 page)

2. Core Federal and matching funds and distribution among program elements over the last 8 years

| Year   | SG | Match | Distribution (Research, Extension, Education, Communications, Program Development, Administration,) |       |       |      |       |      |
|--------|----|-------|-----------------------------------------------------------------------------------------------------|-------|-------|------|-------|------|
|        |    |       | R=\$                                                                                                | Ex=\$ | Ed=\$ | C=\$ | PD=\$ | A=\$ |
| Year 1 | \$ | \$    | R=\$                                                                                                | Ex=\$ | Ed=\$ | C=\$ | PD=\$ | A=\$ |
| Year 2 | \$ | \$    | R=\$                                                                                                | Ex=\$ | Ed=\$ | C=\$ | PD=\$ | A=\$ |
| Year 3 | \$ | \$    | R=\$                                                                                                | Ex=\$ | Ed=\$ | C=\$ | PD=\$ | A=\$ |
| Year 4 | \$ | \$    | R=\$                                                                                                | Ex=\$ | Ed=\$ | C=\$ | PD=\$ | A=\$ |
| Year 5 | \$ | \$    | R=\$                                                                                                | Ex=\$ | Ed=\$ | C=\$ | PD=\$ | A=\$ |
| Year 6 | \$ | \$    | R=\$                                                                                                | Ex=\$ | Ed=\$ | C=\$ | PD=\$ | A=\$ |
| Year 7 | \$ | \$    | R=\$                                                                                                | Ex=\$ | Ed=\$ | C=\$ | PD=\$ | A=\$ |
| Year 8 | \$ | \$    | R=\$                                                                                                | Ex=\$ | Ed=\$ | C=\$ | PD=\$ | A=\$ |

3. Leveraged funding from partners (NOAA, other Federal, State and local) for the program over the last 8 years

4. National competition funding (NSIs, pass through awards) over the last 8 years

5. Additional Program Funding through grants, contracts and development activities over the last 8 years

**II. Connecting Sea Grant with Users Indicators:**

**A. Engagement with Appropriate User Communities –**

1. Leadership by staff on boards and committees (0.5 page)

**B. Partnerships – (0.5 page)**

1. Effective local, regional and national interactions/collaborations including NOAA programs

2. Leveraged funding from partners (NOAA, other Federal, State and local) for the program

**III. Effective and Aggressive Long-Range Planning Indicators:**

**A. Strategic Planning Process - (1 page)**

1. Stakeholder and staff involvement (numbers and duration) and integration of input into planning

2. Plan development (or reassessing priorities), selection process, and clear articulation of priorities

**B. Strategic Plan Quality (1page)**

1. Short to long-term functional and management goals established

**C. Implementation Plan – (1 page)**

1. Distribution of investment/effort to meet strategic plan priorities

2. Identification of short to long-term benchmarks

3. Work plan developed for integration of program elements

**IV. Producing Significant Results Indicators:**

**A. Contributions to Science and Technology – (1 page)**

1. Number of publications (journal articles, book chapters, reports, etc.) (Publication list is a separate Appendix)

2. Invention disclosures and patents

**B. Contributions to Extension, Communications and Education**

1. Extension – Sponsorship of education programs and target audience participation; Internal evaluation processes for products and programs; Staff and product awards

2. Communications – Number, list and diversity of products produced (print, audio, video, web, etc.); Staff and product awards

3. Education – Numbers of graduate and undergraduate students supported, including fellowships and internships; Staff and product awards

| Students      | Year 1 | Year 2 | Year 3 | Year 4 | Total |
|---------------|--------|--------|--------|--------|-------|
| Undergraduate | #      | #      | #      | #      | #     |
| Graduate      | #      | #      | #      | #      | #     |

**C. Impact on Society, the Economy, and the Environment** – This element should make up the bulk of the discussion in Section 1 of the briefing book, but programs may wish to include additional information here.

1. Descriptions of the most important impacts
2. Positive environmental impacts and economic and social benefits resulting from changes in behavior of individuals, businesses, and institutions

**D. Success in Achieving Planned Program Outcomes** – There are no expected indicators for this element that need to be included in the appendix. Programs should address this element as part of Section 1 and/or during their PAT review.

## NOTES

**PAT SURVEY**  
**(For Non-SGRP Program Assessment Team Members)**

**Name (Optional):** \_\_\_\_\_

**PAT Assigned:** \_\_\_\_\_

**Date(s) of the PAT Review:** \_\_\_\_\_

Please give us your thoughts on the PAT visit you participated in as follows:

**Timing of your appointment:**

**Background information provided to you on the Sea Grant Program:**

- In general
  
  
  
  
  
  
  
  
  
  
- The specific program of the PAT you attended:

**Process of the PAT during the visit:**

- The PAT evaluation and scoring system:
  
  
  
  
  
  
  
  
  
  
- Your role in the final PAT report and on its preparation:
  
  
  
  
  
  
  
  
  
  
- Would you participate in future PAT visits?
  
  
  
  
  
  
  
  
  
  
- Who would you recommend as candidates for future PAT participation:
  
  
  
  
  
  
  
  
  
  
- Would you be interested in being considered for appointment to the National Sea Grant Review Panel:

**Recommendations for improving the PAT process, overall:**