# EVOS ANNUAL PROJECT REPORT

**Project Number: 040340 Annual Report**

**Project Title**: **Long-term oceanographic monitoring of the Gulf of Alaska Ecosystem**

**PI Name: Thomas Weingartner**

**Time Period Covered by Report: 10/1/03 – 8/31/04**

**Date of Report: 8/26/04**

1. **Work Performed:**

We completed the monthly CTD sampling at hydrographic station GAK 1. We were delayed in re-deploying the GAK 1 mooring because last year's mooring had been dragged off site (but eventually recovered) by fishing activity. Additional delay in re-deploying occurred because we installed a satellite-tracked beacon onto the new GAK 1 mooring. This beacon will activate in the event that the mooring is pre-maturely brought to the surface. The mooring data have yet to be posted to the GAK 1 website because there are some difficulties in interpreting the results because it was dragged from its intended site. Sorting these issues out has taken more time than anticipated. Two manuscripts using the GAK 1 data were accepted for publication in Deep-Sea Research and a third is undergoing revision for publication in Continental Shelf Research. Two presentations on GAK 1 results will be given at the fall 2004 PICES meeting (one by Weingartner and one by Royer). F. Muter is also using these data in assessing fisheries responses to environmental variability in the Gulf of Alaska.

2. **Future Work:** *Summarize work to be performed during the upcoming year, if changed from the original proposal. Describe any proposed changes in objectives, procedural or statistical methods, study area, or schedule. [**PLEASE NOTE**: Significant changes in a project's objectives, methods, schedule, or budget require submittal of a new proposal that will be subject to the standard process of proposal submittal, technical review, and Trustee Council approval.]*

No changes are envisioned at this time, although future GAK 1 moorings will contain the satellite beacon. The September occupation of the GAK 1 mooring remains to be performed as part of this project. We hope to complete data issues pertaining to the GAK 1 mooring by December 2004 at which time the mooring results will be posted on the GAK 1 website.

3. **Coordination/Collaboration:** *Describe efforts undertaken during the reporting period to achieve the coordination and collaboration provisions of the proposal, if applicable.*

Much of the GAK 1 sampling was accomplished by the Alpha Helix during GLOBEC cruises to the northern Gulf of Alaska. Data is shared with all who request it.

4. **Community Involvement/TEK & Resource Management Applications:** *Describe efforts undertaken during the reporting period to achieve the community involvement/TEK and resource management application provisions of the proposal, if applicable.*

**Not applicable**

5. **Information Transfer:** *List (a) publications produced during the reporting period, (b) conference and workshop presentations and attendance during the reporting period, and (c) data and/or information products developed during the reporting period. [**PLEASE NOTE:** Lack of compliance with the Trustee Council's data policy and/or the project's data management plan will result in withholding of additional project funds, cancellation of the project, or denial of funding for future projects.]*

Weingartner, T. S. Danielson, and T. Royer, Freshwater Variability and Predictability in the Gulf of Alaska (accepted, *Deep-Sea Research*). A copy of the accepted manuscript was forwarded to P. Mundy in spring 2004.

Royer, T. C., Hydrographic Responses of the Coastal Gulf of Alaska to Seasonal and Interannual Forcing (accepted, *Deep-Sea Research*). A copy of the accepted manuscript is being forwarded to P. Mundy.

Sarkar, N., T. C. Royer, and C. E. Grosch Mixed layer variability at a coastal site in the northern Gulf of Alaska (in revision for *Continental Shelf Research*)

Presentations to be made at the October 2004 PICES meeting incorporating GAK 1 data.

Weingartner, T. Ecosystem structure and function on the Gulf of Alaska shelf (INVITED TALK)

Royer, T., C. E. Grosch, T. Weingartner, and S. Danielson, Ocean Climate Conditions during GLOBEC Northeast Pacific (NEP) Long-term Observation Program (LTOP).

We are preparing an additional manuscript for publication in a peer-reviewed journal using the GAK 1 data set. This paper will present seasonal and interannual variability in heat fluxes over the Gulf of Alaska and ocean thermal variability based on the GAK 1 time series. The tentative authorship and title is:

Danielson, S. L. and T. Weingartner, Seasonal and interannual variability in air-sea heat fluxes over the northern Gulf of Alaska shelf. We will submit this paper to either *Continental Shelf Research* or the *Journal of Geophysical Research* within the next year.

Data sets are put up on the project website (http://www.ims.uaf.edu/gak1) immediately after being calibrated. Additions and improvements to the project website are incorporated as they are developed or new findings emerge. PDF files of accepted manuscripts will be posted to this website in October 2004.

6. **Budget:** *Explain any differences and/or problems between actual and budgeted expenditures, including any substantial changes in the allocation of funds among line items on the budget form. Also provide any new information regarding matching funds or funds from non-EVOS sources for the project. [**PLEASE NOTE:** Any request for an increased or*

*supplemental budget must be submitted as a new proposal that will be subject to the standard process of proposal submittal, technical review, and Trustee Council approval.]*

**No change**

**Report Prepared By: __Thomas Weingartner_____**
**Project Web Site Address:**
**_____**(http://www.ims.uaf.edu/gak1)**_____**