

Annual Progress Report Form - Oil Spill Recovery Institute

Date: 05/11/06

Awardee/Grantee: Peter Q. Olsson, Alaska Experimental Forecast Facility, University of Alaska Anchorage

OSRI Contract No: 05-10-18

Project Title: Providing Routine Forecasts of Atmosphere over Prince William Sound and Surrounding Environment

Report Covers: Period from Oct 1, 2005 thru March 31, 2006

PART I - Progress Report on Activities

The goal of this project is to produce routine, operational daily forecasts of the atmosphere over Prince William Sound and surrounding terrain using the mesoscale atmospheric model RAMS (Regional Atmospheric Modeling System). The version of RAMS tailored to PWS is referred to as PWS-RAMS. This model output is to be used by a wave model SWAN and an ocean circulation model ROMS, that will produce forecast sea state for the PWS, as well as directly by users interested in atmospheric (weather) parameters and fields.

The project is on schedule and is producing the data fields needed by other groups contributing to the Prince William Sound Observing System (PWSOS) (see below)

Brief review of the objectives as described in original proposal and progress report related to these objectives

The deliverables for this project are these gridded fields of the forecast variables. Specifically:

- **The model graphics will continue to be generated and placed on the AEFF Weather Briefer's web-site.**

The model graphics are still being displayed on the AEFF Weather Briefer's web-site: http://aeff.uaa.alaska.edu/wx_brief.html

- **Additionally, as new graphical capability is added to the PWS Observing System (PWSOS) web site, PWS-RAMS graphical output, in a different representation, will be placed on the *pws.aaos.org* web site. This latter effort will be conducted in collaboration with the AOOS web team at UAF.**

The website name has changed a bit (ak.aaos.org/pws2) but the graphics in a more user-friendly format are being placed on the current PWSOS web-site. Also, the raw data

used to make these plots are being sent in an automated manner to the data ingest portal at UAF.

- **In addition to the graphical representation of the forecast fields many PWSOS collaborators will receive data delivered to their portal of choice. This group of collaborators currently includes the PWS-POM, ROMS and the SWAN modeling groups. Each of the groups receives a customized subset of surface variables pertinent to the project they are working on. In some cases this does now, or will in the future, involve variables on the coarser RAMS grids.**

The data is still being sent to the collaborators as indicated above. At some point in the future, it would be desirable to have the data pulled rather than pushed to the other data users. We foresee this as the PWSOS website at the AEFF matures.

Describe problems or roadblocks encountered in project implementation.

The most significant problem we have had to overcome is the problem of the data used to initialize the model. This has been an issue since the inception of this project and will likely continue to be so. The data set that occasionally “comes in late” is that of the larger scale model that PWS-RAMS uses for initial and boundary condition information. The main effect is that the model runs late when this data set is late. This is usually only a matter of an hour or so and hence is not a major issue, though it does cause the models dependent on PWS-RAMS to initialize late as well. There is no apparent fix for this issue, as it originates at the national level and trickles down to us.

Highlight accomplishments, whether or not they were part of the original proposal

At the request of the PWSOS community we were successful in moving the fine grid (PWS-RAMS Grid #3) to the east about 35 kilometers to accommodate the ocean modelers. This grid now resolves the outflow from Copper River delta though this does not change the fact the valley producing the channeled flow is still only resolved on grid #2 at 16 km grid spacing.

We were able to make this move and, with a little juggling of grid boundaries, were able to achieve winds with little noise at the boundaries

Appendix including copies of all written reports or publications completed or in progress, resulting from the project work. This also includes abstracts of papers presented at conferences. Please note the acknowledgment of OSRI support stated in Section 10.3.4 of the Grant Policy Manual

No pubs to report.

PART II - Budget Report

Expenses through March 31, 2006

Budget Category	Budget	Quarter Expenses	Cumulative Expenses	Balance Remaining
Direct Costs				
Personnel	42,403.00	22,432.20	42,251.55	151.45
Travel	0.00	0.00	0.00	0.00
Contractual	0.00	0.00	0.00	0.00
Commodities	1,845.00	0.00	0.00	1,845.00
Equipment	0.00	0.00	0.00	0.00
Subtotal	44,248.00	22,432.20	42,251.55	1996.45
Direct Costs				
Indirect	15,752.00	7,985.89	15,041.59	710.41
Project Total	60,000.00	30,418.09	57,293.14	2706.86