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14. ABSTRACT The goal of this grant was to provide logistics support for Arctic and Antarctic field programs. the goal was met by assuming major responsibilities in the area of planning, coordination, and management of field programs. This included the procurement of logistical equipment and supplies, contracting for services such as ship and aircraft support, and providing field personnel. Two main field programs were supported: Surface heat Budget of the Arctic Ocean and North Pole Environmental Observatory.					
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**Final Report, ONR Grant N00014-97-1-0210
June 1, 1997 –December 31, 2000**

Andreas Heiberg, Principal Investigator
Polar Science Center, Applied Physics Laboratory
University of Washington
Seattle, WA 98105-6698

phone: (206) 543-1348 fax: (206) 543-3521 email: heiberg@apl.washington.edu

LONG-TERM GOAL

To provide logistics support for Arctic and Antarctic field programs.

OBJECTIVES

The objective of this project was to assist ONR in implementing its research goals in the Arctic. The primary obligation under this grant was to provide logistical support to the University of Washington, as well as other national and foreign ONR-sponsored investigators.

APPROACH

The objectives were met by assuming major responsibilities in the area of planning, coordination, and management of field programs. This included the procurement of logistical equipment and supplies, contracting for services such as ship and aircraft support, and hiring temporary field personnel. Additionally, the grant maintained a substantial oceanographic and logistics equipment pool for use by ONR-sponsored investigators.

WORK COMPLETED

The SHEBA field program was successfully carried out from October 1997 to October 1998. The Canadian Coast Guard Icebreakers *Des Groseilliers*, and *Louis S. St. Laurent* were stationed at Tuktoyaktuk, NWT in September 1997, where project equipment and personnel were loaded for deployment at the SHEBA camp. The two ships traveled north and on 2 October 1997 the SHEBA site was selected at 75°N, 143°W, 330 Nmiles northeast of Prudhoe Bay, Alaska. The *St. Laurent* returned south and the *Des Groseilliers* was set in the Arctic pack ice for the duration of the SHEBA project.

Logistics support was provided to the SHEBA program in the following areas:

- Temporary logistics offices were set up in Deadhorse and Barrow, Alaska, to support staging and rotation of science personnel, ship's crew, cargo, and supplies.
- Aircraft support was contracted from Era Aviation and Bradley/First Air.
- Helicopter support was contracted from the Canadian Coast Guard.
- Shipping was provided to and from the SHEBA site for project participants.
- Equipment and supplies were provided to the project.
- Temporary and permanent personnel were hired to support scientists and ship's crew.

Post-SHEBA field work activities included:

- Refurbishing, inventorying, and storing equipment used during field projects.
- Reviewing budgetary matters, finalizing payments, and closing purchase orders and subcontracts.
- Consolidating and assimilating observations made and experiences gained, both operationally and technically.

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The first phase of the North Pole Environmental Observatory was carried out during the second half of April, 2000. Staging via Thule, Greenland and Alert, Canada, a small field camp was established in the North Pole region and supported for two weeks.

RESULTS

The SHEBA program was successfully carried out from October 1997 to October 1998. The early melt season offered the logistics staff many challenges. In light of the large number of personnel that participated, many with limited or no arctic experience, and considering the many hazards that were present in the course of a year, it is very gratifying to note that the project was spared serious accidents.

The pilot research camp to support the North Pole Environmental Observatory was successfully carried out in April 2000.

The SHEBA and North Pole Environmental Observatory, as well as other field projects supported through this grant have added to and broadened our experience base. This allows us to offer expert assistance and advise frequently solicited by other US as well as foreign individuals and organizations.