DURING THE SECOND YEAR OF THIS THREE YEAR PROJECT, WE HAVE WORKED ON THREE PUBLICATIONS (SEE ATTACHMENT), SPONSORED THE VISITS OF TWO FORMER SOVIET UNION SCIENTISTS TO THE USA AND DISCUSSED DATA RESCUE WITH THEM, AND WE HAVE MADE PROGRESS ON IDENTIFYING IN SITU NITRATE SENSORS. (SEE ATTACHMENT)
**General Instructions for Completing SF 298**

The Report Documentation Page (RDP) is used in announcing and cataloging reports. It is important that this information be consistent with the rest of the report, particularly the cover and title page. Instructions for filling in each block of the form follow. It is important to stay within the lines to meet optical scanning requirements.

**Block 1. Agency Use Only (Leave blank)**

**Block 2. Report Date.** Full publication date including day, month, and year, if available (e.g. 1 Jan 88). Must cite at least the year.

**Block 3. Type of Report and Dates Covered.** State whether report is interim, final, etc. If applicable, enter inclusive report dates (e.g. 10 Jun 87 - 30 Jun 88).

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**Block 5. Funding Numbers.** To include contract and grant numbers; may include program element number(s), project number(s), task number(s), and work unit number(s). Use the following labels:

- **C** - Contract
- **G** - Grant
- **PE** - Program
- **PR** - Project
- **TA** - Task
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- **Element Accession No.**

**Block 6. Author(s).** Name(s) of person(s) responsible for writing the report, performing the research, or credited with the content of the report. If editor or compiler, this should follow the name(s).

**Block 7. Performing Organization Name(s) and Address(es).** Self-explanatory.

**Block 8. Performing Organization Report Number.** Enter the unique alphanumeric report number(s) assigned by the organization performing the report.

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**Block 10. Sponsoring/Monitoring Agency Report Number. (If known)**

**Block 11. Supplementary Notes.** Enter information not included elsewhere such as: Prepared in cooperation with...; Trans. of...; To be published in...; When a report is revised, include a statement whether the new report supersedes or supplements the older report.

**Block 12a. Distribution/Availability Statement.** Denotes public availability or limitations. Cite any availability to the public. Enter additional limitations or special markings in all capitals (e.g. NOFORN, REL, ITAR).

- **DOD** - See DoDD 5230.24, "Distribution Statements on Technical Documents."
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- **DOD** - Leave blank.
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**Block 13. Abstract.** Include a brief (Maximum 200 words) factual summary of the most significant information contained in the report.

**Block 14. Subject Terms.** Keywords or phrases identifying major subjects in the report.

**Block 15. Number of Pages.** Enter the total number of pages.

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**Block 20. Limitation of Abstract.** This block must be completed to assign a limitation to the abstract. Enter either UL (unlimited) or SAR (same as report). An entry in this block is necessary if the abstract is to be limited. If blank, the abstract is assumed to be unlimited.
This project has the following major objectives:
1) Facilitating the consolidation and dissemination of the scientific results of the Arctic Nuclear Waste Assessment Program (ANWAP).
2) Helping to ensure that chemical oceanographic data from the Arctic Ocean that was collected by the Former Soviet Union (FSU) does not disappear with the collapse of some of the scientific infrastructure in the FSU.
3) Introducing new instrumentation for autonomously collecting chemical oceanographic data from the Arctic Ocean and its adjacent seas.

During the second year of this three year project, effort devoted towards objective 1 has included:
1) Finalizing a manuscript for the Oceanographic Society Magazine that describes the ANWAP program and its initial results (Edson, et al. in press.)
2) Attending the ANWAP investigators' workshop that was held this spring at Snowbird, Utah.
3) Beginning to organize a volume of Marine Chemistry that will be devoted to ANWAP results.

Progress under objective two has included sponsoring the visits of two FSU colleagues to the United States and holding initial discussions on the joint analysis of data from the FSU Arctic. One of these visitors was Dr. Igor Melnikov of the P.P. Shirshov Institute in Moscow. The other was Dr. Anatoliy F. Mandych of the Institute of Geography. We hope to initiate joint data analysis and rescue projects with both investigators within the next few months in collaboration with Dr. Peter Becker of the Battelle Marine Laboratory.

Efforts under objective 3 are planned to peak during the last year of this three year program of research, but we have established an initial collaboration with Dr. T. Whitledge of the University of the Texas, to purchase a commercial in situ nutrient sensor. Three models are under consideration, two of which are based on wet chemical analyses. The third is based on the absorption of UV light and will not be commercially available until this fall. Because the UV based instrument has the most potential to be integrated with autonomous vehicles and does not require chemicals, we have opted to wait until fall before purchasing an instrument. In the meantime, we have contracted with Mr. Dean Lambourn of the University of Washington to construct an automated syringe sampler that will provide periodic reference samples needed for testing the in situ device that we will purchase within the next several months.

This award has also supported the completion of a manuscript dealing with
biogeochemical cycling in Arctic shelf sediments that has recently been submitted to *Continental Shelf Research* (Devol *et al.*, submitted) and publication of a comment in Nature (Codispoti, 1995).

**References**

