



AMERICAN METEOROLOGICAL SOCIETY

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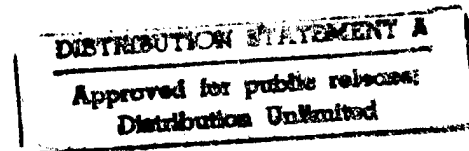
Annual Report - Year 2

ONR Domestic Research Grant N00014-96-1-0576

The Maury Project

Grantee

American Meteorological Society
45 Beacon Street
Boston, MA 02108-3693



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Long-Term Goals

The Maury Project is an oceanography-based graduate-level precollege teacher enhancement program, designed to promote the scientific literacy of young people by improving the background of pre-college teachers on the physical foundations of oceanography.

Objectives

This project is designed to meet the following objectives:

- (a) Master teachers will be trained to be peer trainers and resource persons on the physical foundations of selected oceanographic issues.
- (b) Self-contained teacher-enhancement instructional modules will be developed, designed for use by the peer trainers in 1- to 2-hour training sessions.
- (c) The peer trainers will arrange and conduct training sessions for other teachers, with support of the AMS.

- (d) A national network of oceanography peer trainers and resource persons will be developed.
- (e) A variety of instructional resource materials on the physical foundations of oceanography and related topics will be prepared and disseminated.

Approach

There are three major components to this program: summer workshops for master precollege teachers, the production of teacher enhancement instructional resource materials, and the peer-training of teachers. The intent is to provide a core group of teachers with the knowledge and instructional resources enabling them, in turn, to peer-train a large number of their peer teachers on selected topics potentially appropriate for pre-college classrooms.

Tasks Completed

In Summer 1997, a two-week workshop for pre-college teachers on the physical foundations of selected oceanographic topics was held at the United States Naval Academy in Annapolis, MD. An additional week of training was conducted for teachers who had participated in the two-week workshop in one of the previous two summers. Two new self-contained teacher-training modules entitled *Shallow-Water Ocean Waves* and *Ocean Sound* were completed for use by the peer trainers who attended the Summer 1997 workshops. An additional instructional resource activity entitled *Ocean Waves on the Web* was developed and published.

Results

With the training of 23 new participants in the Summer 1997 Maury Project workshop, a total of 95 teachers representing all 50 states, the District of Columbia, Puerto Rico, Canada, Great Britain, Australia, and US Department of Defense Overseas School System have become peer trainers. During 1997, 19 previous peer trainers received an additional week of training on new topics, the two new teacher-training guides, and the internet activity.

Impact

All Summer 1997 participants, including the returnees, are committed to offer a minimum of two training sessions for pre-college teachers in their home states and regions during the 1997-98 school year. These peer trainers will utilize support materials supplied by the project, including 4,000 printed copies of each of the new teacher-training guides. To see the multiplicative effect of this program, consider that during the past year, approximately 200 workshops were conducted by peer trainers across the country, reaching over 3,000 teachers, each of whom reaches about 100 students daily.

Transitions

Originally funded by the NSF for 3 summers starting in 1994, the existing Maury Project Summer Workshops at the Naval Academy have received additional NOAA, Navy, and AMS support which assures their offering through Summer 1998.

Publications and Presentations

Over 20 publications or conference presentations were made by Maury Project peer trainers at the 1997 Annual Meeting of the AMS, the 2nd International Conference on Geosciences Education, and 1996-97 National Science Teachers Association Conferences. These and additional publications or presentations made by the Maury Project staff include:

PAPERS PRESENTED AT NATIONAL CONFERENCES

Annual Meeting of the American Meteorological Society

P.E. Rumpp and G.W. Rumpp, 1997: "Global Oceans", presented at the 6th Symposium on Education [Feb 1997].

S. Clark, 1997: "Coastal Upwelling-Monterey Bay California", presented at the 6th Symposium on Education [Feb 1997].

D.M. Curry, 1997: "Investigating Environmental Quality: A School Community Partnership Model", presented at the 6th Symposium on Education [Feb 1997].

L. Greenleaf, 1997: "Connecting Kids and Classrooms by Internet", presented at the 6th Symposium on Education [Feb 1997].

L.E. Baker, 1997: "Maury Project Modules: Flexible Units for K-12 Teachers", presented at the 6th Symposium on Education [Feb 1997].

M.J. Passow, 1997: "Meteorology, Oceanography, and the National Science Education Standards", presented at the 6th Symposium on Education [Feb 1997].

M.J. Passow, 1997: "Portfolio Experiences in Oceanography Education", presented at the 6th Symposium on Education [Feb 1997].

1997 NSTA Meetings

L. Maston, C. Croone and L.Tellez, 1997: "All the Water in the Sea -A Workshop on Measuring Sea Level from Space", presented at the 1997 NSTA National Convention [Apr 1997].

K. Giesting, D. Mosher and P. Shuttleworth, 1997: "Ocean in Motion - A Workshop on Wind Driven Ocean Currents", presented at the 1997 NSTA National Convention [Apr 1997].

P. Lacey and M.A. Johnson, 1997: "A Workshop on Coastal Upwelling and Downwelling", presented at the 1997 NSTA National Convention [Apr 1997].

P. Rumpp and G. Rumpp, 1997: "The Maury Project: Deep Water - A Workshop on Density Driven Ocean Currents", presented at the 1997 NSTA National Convention [Apr 1997].

C. Bolay, 1997: "Authentic Earth Science Activities - A Workshop on Wind Driven Ocean Currents", presented at the 1997 NSTA National Convention [Apr 1997].

2nd International Conference on Geosciences Education

D. Mosher, 1997: "The Maury Project", presented at the 2nd International Conference on Geosciences Education, Hilo, HA [Jul 97].

D.R. Smith, 1997: "The Maury Project: An Education Partnership in Physical Oceanography" (with I.W. Geer and D.E. McManus), at the 2nd International Conference on Geosciences Education, Hilo, HA [Jul 97].

PUBLICATIONS:

Smith, D.R. (1996): "Update on the Maury Project". *Current - The Journal of Marine Education*, 13(4), 3-4.

Smith, P.K. and D.R. Smith (1996): "The Life and Work of Matthew F. Maury". *Current - The Journal of Marine Education*, 13(4), 8-9.

Smith, D.R., I.W. Geer, and D.E. McManus (1997): "The Maury Project - An Educational Partnership in Oceanography". *Bulletin of the American Meteorological Society*, 78(7), 1497- 1502.

Number of Grad Students Supported More than Half Time - None

Patents - None

Service on Outside Committees - None

Honors - None

Percentage of ONR Funds Sent on to Other Organizations - None

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13. ABSTRACT (Maximum 200 words) Twenty-three master precollege teachers attended a two-week workshop at the U.S. Naval Academy in July 1997 in preparation to become Maury Project Peer Trainers. They were supplied with Project instructional resource materials which they will use to train other teachers during the 1997-98 school year.				
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Please find enclosed copy(ies) of the Year 2 Annual Report for our ONR Domestic Research Grant N00014-96-1-0576.

Sincerely,

Ira W. Geer
Principal Investigator

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