

NO-A189 142

PROPOSAL FOR SUPPORT OF MIAMI INNER CITY MARINE SUMMER
INTERN PROGRAM DADE COUNTY(U) MIAMI UNIV FLA INST OF
MARINE AND ATMOSPHERIC SCIENCES 21 DEC 87

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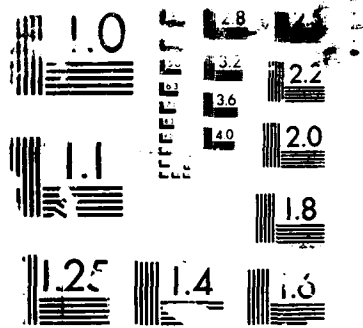
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N00014-87-G-0116

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AD-A189 142



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Ref.: 100-1231:CGAH:j1
December 21, 1987

Scientific Officer
Department of the Navy
Office of Naval Research
800 N. Quincy Street
Arlington, Virginia 22217-5000

Attention: Code 1125

Dear Sirs:

We are enclosing one copy of the final report of work performed under Agreement No. N00014-87-G-0116 reference "Proposal for Partial Support of Miami Inner City Marine Project Summer Intern Program", forwarding 2 copies to DTIC, and one copy to the Director of NRL.

Sincerely,

Chris Hamm

Christopher G. A. Harrison
Interim Dean

Enclosures

DTIC
ELECTE
DEC 31 1987
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Approved for public release
Distribution Unlimited

Rosenstiel School of Marine and Atmospheric Science
Office of the Dean
4600 Rickenbacker Causeway
Miami, Florida 33149-1098
(305) 361-4001

This document constitutes the Final Report of efforts undertaken under:

Grant No. N00014-87-G-0116

Modification No. P00003

ONR Code N00014

ACO Code N66020

Dated 30 June 1987

Amount \$13,835.00

GRANT PURPOSE

The purpose of this grant was to provide funding to conduct a high-school intern program jointly with the Dade County Public Schools. This program was supported by both the National Oceanic and Atmospheric Administration and the Navy. The conduct of the workshop, the personnel and effort, and the use of funds for direct and indirect expenses was generally as set forth in the Grantee's proposal entitled "Proposal For Partial Support of Miami Inner City Marine Project Summer Intern Program" dated 30 January 1987. Eligibility for this program was limited to socially and economically disadvantaged students in inner city Dade County high schools who:

- o were entering grades 10, 11 or 12.
- o minimum grade point overall average of 2.5 was acceptable, but 3.0 was minimum requirement for scientific and laboratory research jobs.
- o good attendance record.
- o successfully completed or will be enrolled in one or more of these courses: Biology, Marine Biology, Ecology, Chemistry, Physics, and Computer Applications.
- o considered to be a high achiever, hard worker, and possess a positive attitude. Be self-directed and able to work independently if necessary. Able to work well with others; punctual, and dependable.
- o must be able to provide or arrange for daily transportation.
- o complete application and interview process.

EXECUTION OF THE PROGRAM

Faculty at RSMAS were asked to fill out job description forms. These are attached as Appendix A. These forms were then examined by DCPS staff to match up the job requirements with the interests and skills of the prospective student interns. The final list of students and supervising faculty is given in Appendix B. The program ran from June 23 to August 21, 1987.

Paid summer internship positions were available with three federally supported oceanographic centers. They are:

- o University of Miami, Rosenstiel School of Marine and Atmospheric Science.
- o NOAA, Atlantic Oceanographic and Meteorological Laboratory.
- o National Marine Fisheries Service, Southeast Fisheries Center.

The terms of employment and opportunities in this program were:

- o a maximum of eighteen internships were available through an application and interview process.
- o employment period was from June 23 to August 21, 1987.
- o one annual elective credit was earned.
- o each student earned \$3.50 per hour for working four days per week for 30 hours each week.
- o Monday through Thursday students reported on-the-job. On Friday, students reported to DCPS for an instructional program that include guidance counseling, field trips, instructional activities, guest speakers and student presentations.

The 1987 timetable for this program was:

- | | |
|---------------|--|
| April 2 - 24 | Student Recruitment |
| May 8 | Internship applications due to ICMP Office |
| May 11 - 15 | Applications checked for completeness by ICMP Office |
| May 16 | Applicant employability skills training sponsored by The Achievers of Greater Miami. Time: 8:30 a.m. to Noon |
| May 18-June 5 | Interviews at job sites (Students must arrange their own transportation) |
| May 29 | Swim Test given to interns whose jobs require swimming. Jose Marti Pool at 3 p.m. |
| June 8 - 12 | Interns notified of job placement at school through the Science Department Chairperson or Assistant Principal for Curriculum |
| June 23 | Employment began. |

Evaluation will be done in two parts. Firstly, DCPS has received the answers to questionnaires that all students were required to fill out at the end of their summer research experience. The questionnaire is shown in Appendix C. The results from these questionnaires are not yet available. In addition, DCPS has also agreed to monitor these students to find out what happens to them when they leave school. We are interested in finding out how many of them continue their education at universities or colleges, and in particular what subjects they plan on majoring in. The second part of the evaluation is done by RSMAS faculty, who are currently replying to a request for an evaluation which is included as Appendix D. Again, final results from this evaluation are not yet complete.

APPENDIX A

JOB DESCRIPTION FORMS

FOR

DADE COUNTY INNER CITY MARINE SCIENCE PROJECT

SUMMER INTERNSHIP

JUNE 23, 1987 to AUGUST 21, 1987

AGENCY UM - Rosenstiel School
Biology/Algal Culture Assistant

JOB SITE 4600 Rickenbacker Causeway

HOURS Discuss with employer

NUMBER OF POSITIONS ONE

SPECIAL REQUIREMENTS

- Chemistry
- Mathematics
- Laboratory experience

DRESS REQUIREMENTS Discuss with employer

JOB DESCRIPTION

- Work in algal culture laboratory in phytoplankton and zooplankton culture project.

Formulate nutrient solutions
Population density monitoring
Lab sterilization techniques
Daily maintenance of cultures

AGENCY UM - Rosenstiel School
Biology/Fish Culture Assistant

JOB SITE 4600 Rickenbacker Causeway

HOURS Discuss with employer

NUMBER OF POSITIONS ONE

MINIMUM AGE 16

SPECIAL REQUIREMENTS

- Like working outside
- Prepared to go on field trips

DRESS REQUIREMENTS Discuss with employer

JOB DESCRIPTION

- Maintain and care for adult and juvenile fish.

Food preparation and feeding
Daily care and maintenance of fish cultures
Experimental data collection

AGENCY UM - Rosenstiel School
Biology/Shark Research: Dr. Gruber

JOB SITE 4600 Rickenbacker Causeway

HOURS Discuss with employer

NUMBER OF POSITIONS TWO

MINIMUM AGE 16

SPECIAL REQUIREMENTS

- Strong Biology background and interest
- Boating experience preferred or possess self-confidence to be able to conduct research while on a boat (ICMP WILL SWIM TEST)
- Computer operation experience

DRESS REQUIREMENTS Discuss with employer

JOB DESCRIPTION

- Shark research including calorimetry, respirometry, feeding studies, fishing for sharks and lab maintenance.

AGENCY UM - Rosenstiel School
Chemistry/Rain: Dr. Prospero

JOB SITE 4600 Rickenbacker Causeway

HOURS Discuss with employer

NUMBER OF POSITIONS ONE

MINIMUM AGE 16

SPECIAL REQUIREMENTS

- Chemistry
- Science research interest

DRESS REQUIREMENTS Discuss with employer

JOB DESCRIPTION

- Study of the chemistry of precipitation
- Rainwater samples will be routinely collected, PH measured, composition analyzed in an effort to understand the causes of acid rain in the South Florida area

AGENCY UM - Rosenstiel School
Ocean Chemistry Research

JOB SITE 4600 Rickenbacker Causeway

HOURS Discuss with employer

NUMBER OF POSITIONS ONE

MINIMUM AGE 16

SPECIAL REQUIREMENTS

- STRONG Chemistry
- STRONG lab experience
- Minimum Grade Point Average 3.0

DRESS REQUIREMENTS Discuss with employer

JOB DESCRIPTION

- Analysis of various samples collected on oceanographic research cruises
- Computer work
- Possible Oceanographic Cruise (ICMP WILL SWIM TEST)

AGENCY UM - Rosenstiel School
Ocean Engineering

JOB SITE 4600 Rickenbacker Causeway

HOURS Discuss with employer

NUMBER OF POSITIONS TWO

MINIMUM AGE 16

SPECIAL REQUIREMENTS

- Must like to work with electronics and mechanical tools

DRESS REQUIREMENTS Discuss with employer

JOB DESCRIPTION

- Assist in Geo-Acoustic Engineering laboratory using electronic equipment and machines
- Use and learn more about computers and word processors

AGENCY	UM - Rosenstiel School Marine Geology & Geophysics
JOB SITE	4600 Rickenbacker Causeway
HOURS	8:30 to 5 p.m.
NUMBER OF POSITIONS	ONE
MINIMUM AGE	16
SPECIAL REQUIREMENTS	Swimming
DRESS REQUIREMENTS	Work clothes - Will get dirty some days.
JOB DESCRIPTION	Processing sediment and rock sample separating molluscs for identificat sampling burrows in field for form.

AGENCY AOML/Ocean Chemistry Division
JOB SITE 4301 Rickenbacker Causeway
HOURS Discuss with employer
NUMBER OF POSITIONS TWO
MINIMUM AGE 16
SPECIAL REQUIREMENTS
• Chemistry
• Laboratory experience helpful
• Minimum Grade Point Average 3.0
DRESS REQUIREMENTS Discuss with employer

JOB DESCRIPTION

- Performs tasks which relate to the analysis of various types of samples collected on oceanographic research cruises.
- Performs data reduction of oceanographic samples obtained on research cruises.

AGENCY AOML/Physical Oceanography Division
JOB SITE 4301 Rickenbacker Causeway
HOURS Discuss with employer
NUMBER OF POSITIONS TWO
MINIMUM AGE 16
SPECIAL REQUIREMENTS
• Physical Science
• Mathematics
• Minimum Grade Point Average 3.0
DRESS REQUIREMENTS Discuss with employer

JOB DESCRIPTION

- Performs analysis of data which involves chart scaling and preparation of graphs and tables of data.
- Performs routine calculations of mathematical formulae using worksheets, procedures, and standardized guidelines prescribed by the supervisory scientist.
- Searches through reports, scientific journals and publications for desired information and data. Assembles and prepares such data in format(s) convenient for subsequent use.

AGENCY AOML/Library
JOB SITE 4301 Rickenbacker Causeway
HOURS Discuss with employer
NUMBER OF POSITIONS ONE
MINIMUM AGE 16
SPECIAL REQUIREMENTS
• General Science
• Basic knowledge of library procedures, an interest in library science is helpful
• Minimum Grade Point Average 3.0
DRESS REQUIREMENTS Discuss with employer
JOB DESCRIPTION

- Catalogs and files new sets of charts used in oceanographic research.
- Supports scientific research efforts by locating journal articles, research papers and reports and reference material for AOML scientists.
- Assists AOML's librarian (or library technician) in a number of tasks, such as: locating reference books, microfiche, microfilm, charts used in oceanographic and hurricane research, and other library material; responding requests (inter-library loan) for scientific information; and preparing journals for binding.

AGENCY AOML/OCEAN Acoustics Division
JOB SITE 4301 Rickenbacker Causeway
HOURS Discuss with employer
NUMBER OF POSITIONS ONE
MINIMUM AGE 16
SPECIAL REQUIREMENTS
• Mathematics
• Graphing
• Minimum Grade Point Average 3.0
DRESS REQUIREMENTS Discuss with employer
JOB DESCRIPTION

- Performs analysis of data which involves chart scaling and preparation of graphics and tables of data.
- Performs routine calculations of mathematical formulae using worksheets, procedures and standardized guidelines prescribed by the supervisory scientist.
- Searches through reports, scientific journals and publications for desired information and data. Assembles and prepares such data in format(s) convenient for subsequent use.

AGENCY Miami Seaquarium
Marine Mammal Curator Assistant

JOB SITE Rickenbacker Causeway

HOURS Discuss with employer

NUMBER OF POSITIONS ONE

MINIMUM AGE 16

SPECIAL REQUIREMENTS

- Like working outdoors
- Marine biology interest
- Public speaking skills
- Swimming (ICMP WILL TEST)

DRESS REQUIREMENTS Discuss with employer

JOB DESCRIPTION

- Participate in the daily duties of the animal training staff:
get fish for show areas
clean fish buckets
patrol animal show areas
- Observe marine mammal training sessions and assist as needed
- Assist in the development of a "Behind the Scenes" tour for visitors.
- Assist in other projects that may develop as they pertain to the show department and educational programs.

AGENCY Miami Seaquarium

JOB SITE 4400 Rickenbacker Causeway

HOURS 7:00 A.M. to 2:00 P.M.

NUMBER OF POSITIONS ONE

MINIMUM AGE 16

SPECIAL REQUIREMENTS

- Interest in marine animals and common sense

DRESS REQUIREMENTS Sneakers, shorts or long pants that you don't mind ruining. T-shirts will be provided.

JOB DESCRIPTION

- Routine aquarium maintenance including scrubbing algae, siphoning bottoms, etc. Feeding specimens (fish, turtles, manatees, birds.)
- Miscellaneous other related duties
- On-the-job training provided
- Hydroponic machine operation

AGENCY Southeast Fisheries Center
JOB SITE 75 Virginia Beach Drive on
Virginia Key Rickenbacker Causeway
HOURS 8:00 A.M. to 4:30 PM
NUMBER OF POSITIONS THREE
MINIMUM AGE 16
SPECIAL REQUIREMENTS • Strong biology background
DRESS REQUIREMENTS Discuss with employer

- Students will participate in a variety of job assignments on a rotation basis. Assignments include:
 - Data Requests, Species Identification and Data Edit/Quality Control
 - Commercial Fishery Statistics Data Collection
 - Customs and Market News
 - Florida Landing Tacking System on an IBM PC
 - Computer Operations
 - Data Base Management
 - Data Entry
 - Status of Funds Report
 - Computer Plotter Output for Marine Mammals Program
 - Word Processing on the CPT
 - Icthyoplankton Sorting
- The interns will work in close cooperation with the professional, technical and clerical staff of SEFC and the Miami Laboratory.
- The intern will gain familiarity with different potential career opportunities in the field of marine science as applied to management of fisheries from a scientific point of view in the Southeast Region of the United States.
- The intern will be given specific work instructions and their work will be closely followed during the program. The last rotational assignments will be to learn to use a word processor which will allow each internal to draft a one page report on their learning experience at SEFC. The interns will not only learn new skills but also be a team player with scientific team.
- Interns who have a preference may elect one specific job for the summer in lieu of the rotation plan. Speak with the interviewer about this if interested.

APPENDIX B

LIST OF STUDENT INTERNS AND MENTORS

FOR

DADE COUNTY INNER CITY MARINE SCIENCE PROJECT

SUMMER INTERNSHIP

JUNE 23, 1987 to AUGUST 21, 1987

INNER CITY MARINE PROJECT
SUMMER INTERNS
1987

Thomas Ash	SEFC - Ausbon Brown 361-4214
Sandra Cherfrere	AOML - Dr. Hansen - Physical Oceanography 361-4340
Carol Ann Clenton	Biochemistry - Dr. Barrie Taylor 4728
John Flanagan	AMP - Dr. T. Yamamoto/Mohsen Badiey 4637 & 4647
Emane Fleureme	AMP - Dr. T. Yamamoto/Mohsen Badiey 4637 & 4647
George Johnson	MAC - Dr. Frank Millero 4707/4155
Miguel Martinez	BLR - Sharks - Jeff Tatelman/Dr. Gruber 4146
Zannetha V. Moss	MAC - Dr. Kenneth Mopper 4721
Mary L. Norris	Seaquarium/E. Einstadt/Dennis Elster or Susan - Marine mammals 361-5705
Kathleen Paterno	EFH - Joan Sheldon 361-0554 & 1236
Carol M. Randle	MAC - Dr. Joseph Prospero 4724

Fernando Rojas

AOML - Dr. Donald Hansen
361-4340

Jeffrey A. Trapanese

SEFC - Ausbon Brown
361-4214

Frank Valle

EFH - Joan Sheldon
361-1236

Melinda Vavrek

BLR - Sharks - Jeff Tatelman
4146

Colette Walker

AOML - Library - Rose Scott
361-4428

Lavernus E. White

MGG - Dr. Harold Wanless
4658

Taphine Wilcox

SEFC - Ausbon Brown
361-4214

APPENDIX C

EVALUATION FORM BY STUDENTS OF PROGRAM

June 23, 1987 to August 21, 1987

INNER CITY MARINE PROJECT

INTERNSHIP PROGRAM

STUDENT EVALUATION

DIRECTIONS: Rate each question on a scale of 1-5, with one being lowest, or worst score possible; five the highest, or best.

Question	1	2	3	4	5	N/A
1. How well did the initial information packet describe the program and your duties as an intern?						
2. How well was the recruiting process handled by your school?						
3. After your application was submitted, how well was the process of your interview and job assignment handled by the Inner City Marine Project?						
4. How positive was your mentor relationship?						
5. How helpful was your mentor?						
6. How meaningful were your contacts with persons other than your mentor at the job?						
7. How well did your organization provide additional learning activities beyond those required for teaching you the job?						
8. Please rate the value of Internship activities (1- lowest value, 5- highest value) in relation to your <u>personal growth</u> and <u>career awareness growth</u> . Write a score in <u>BOTH</u> columns.						

- A. Job performance evaluations
- B. Notebook
- C. Career research forms
- D. Verbal presentation

Personal Growth	Career Awareness Growth

APPENDIX D

MENTOR PROGRAM EVALUATION FORM

June 23, 1987 to August 21, 1987

INNER CITY MARINE PROJECT
MENTOR PROGRAM EVALUATION

DIRECTIONS: Rate each question by placing a check mark in the appropriate column. Please add improvement suggestions.

Question	EXCELLENT	GOOD	FAIR	POOR	NOT APPLICABLE
1. How well did the initial communication from the Inner City Marine Project office:					
a) describe the program					
b) explain your responsibilities as a mentor					
IMPROVEMENT SUGGESTIONS _____					

2. How well were the interns prepared for:					
a) their interview					
b) their job responsibilities					
IMPROVEMENT SUGGESTIONS _____					

3. To what extent did the student:					
a) develop interpersonal relationship skills					
b) develop self-confidence					
c) establish a positive student-mentor relationship					
IMPROVEMENT SUGGESTIONS _____					

Question	EXCELLENT	GOOD	FAIR	POOR	NOT APPLICABLE
4. To what extent was the supervising teacher:					
a) advised of mentor concerns					
b) available to the mentor					
c) of assistance in promoting a successful intern/mentor relationship					

IMPROVEMENT SUGGESTIONS _____

5. To what extent did the supervising teacher:					
a) address and deal with mentor concerns					
b) maintain mentor contact					
c) provide mentor guidance					
6. To what degree were you prepared to:					
a) assign a variety of meaningful job assignments and duties					
b) provide the student opportunity to learn more about your organization					
c) encourage the student to enter your career field					
d) give the student job performance guidance					
e) supervise job assignments					
f) teach the student new skills					
g) advise the student of desirable employability habits and attitudes					
h) provide opportunity for interaction with professionals at your organization					

IMPROVEMENT SUGGESTIONS _____

Question	EXCELLENT	GOOD	FAIR	POOR	NOT APPLICABLE
7. To what degree did you find the internship/mentor job rewarding?					

STRENGTHS (Please list) _____

IMPROVEMENT SUGGESTIONS (any additional not already listed) _____

8. Do you think the SCIENCE RESEARCH project assignment was a positive addition to the project? () Yes () No

N/A 1987

If yes, list benefits to the:
Mentor _____

Student _____

If no, why _____

9. Did you attend the mentor preparation program ?
Was it of value ? () Yes () No
If not, why _____

N/A 1987

10. Would you participate in a specially designed mentor preparation program for the next year's Summer Internship Program? () Yes () No

If no, why _____

11. What topics or type of preparation do you feel would be most helpful to you in a mentor preparation program? _____

PLEASE MAIL DIRECTLY TO:

Linda J. Eads
Inner City Marine Project
Room 907
1450 N.E. 2 Avenue
Miami, FL 33132

/jo

EWAD

DATE

FILMED

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DTIC