

1976

September 30, 1976

... has been a... academically tempestuous history
... The stature and presence of the Program within
... community has been demonstrated by the major
... the Bureau of Land Management's studies on the
... the planning efforts of the National Sea
... Marine Society; an NSF-supported design group
... and in providing leadership to a national
... as well as organizing a regional research co-

... been paralleled by improved exchange of ideas and
... institutions and a very significant increase in
... at all levels expressing an interest
... environment in general. It is my sincere
... as a legitimate member of the University
... to continue to serve that role of specialized

Revised Independent Marine Science Program

The scope of the Program has not changed from that presented historically, but the role within the Marine Environmental Sciences Consortium has come under scrutiny by the administrations of both the University system and MESC. The need for repositioning of "research arms" of the Consortium has been reevaluated as a result of a more careful analysis of the teaching input (Section V) to the Consortium and a better understanding of the interactions as emerging. It is premature at this time to speculate on the adjustment that may result from this limited "self-study" but an internal programmatic restructuring has already started and is likely to continue.

These alterations will not jeopardize the role that the Program plays within the University of Alabama system, but will further enhance that relationship.

II. Organization of the Marine Science Program

Advisory Committee:

R.P. Claze (UAB)
E.H. Bayona (UA)
S.D. Parker (UAB)

Christopher Bramlett (UA)
Gerald Hutchinson (UAB)
George Cline (UAB)
William Darden (UA)

Director
George F. Crozier (UAB)

Academic Program

Technical Reviewers:

Walter W. Schneider
Barton G. Kern
Charles J. Brusseau

Instruction

Research

T.S. Hopkins (UA)
B.A. Vitter (UAB)
W.W. Schroeder (UA)
H.S. Ivester (UAB)

III. Financial Statement

The extreme cycles of outside funding have seriously obfuscated a simplified presentation of dollar flow through the Program. These sources of support are reviewed in section VI in some detail. The interdependence of the Marine Science Program with vessel operations provides further confusion and at the request of the financial office, a separate budget for Vessel Operations has been prepared for the 1976-77 fiscal year.

The program has not sought significant internal budget increases for several years in light of the development of MESC and the anticipated assumption of the role and scope of MSP by MESC at some point in time (Table 1). All expansion and the majority of the operating expenses of the Program have been provided through outside funding for at least the last two years.

However, major hull repair to the R/V Rounsefell was not anticipated properly and the resulting costs, coupled with routine maintenance, put the MEP budget into a serious deficit. If the \$22,500 repair bill is discounted in some manner, the MEP budget is projected in Table 2. While the positive result will not adequately balance the vessel expenditures, it should be recognized that the result represents a real and significant sacrifice on the part of MSP personnel to meet their obligation to fiscal responsibility.

At this point, the deficit of the Vessel Operations Account (Table 3) does not include the hull repair but rather represents a gamble on capital improvement (winch system) which was necessary to compete for federal funding. Unfortunately the speculation has not been completely realized, but is dependent upon resumption of the BIM contracts.

The major step forward in this area is the recognition by MESC of its obligation to the vessel program and a tentative proposal of \$25000 has been included in its 76-77 budget.

MARINE SCIENCE PROGRAM

80-9540

BUDGET RECAP

Salaries	13,349.82
Fringe	1,024.67
Supplies	5,198.86
Freight	200.00
Telephone	-5.20
Travel	-284.66
Electricity	780.67
<hr/>	
Water & Sewer	-791.33
Gas	98.88
Repairs	2,288.11
Alterations	2,000.00
Consultant Fees	-544.20
Sanitation Service	-22.00
Computer Service	72.41
Equipment	-725.19
<hr/>	
Balance	+ \$22,640.84

Note: This reflects the payroll through August 1976.

Projected September Payroll	12,205.32
Projected September Fringe	<u>1,554.60</u>
New Projected Balance	+\$8,880.92

VESSEL OPERATIONS

75-7441

BUDGET RECAP

Income to date	18,704.19
Encumberances	3,233.15
Expenditures	20,907.96
1975 Daficit	<u>2,811.55</u>
	-8,248.47

Accounts Receivable	<u>3,750.00</u>
	-4,498.47

Table 3

IV. Personnel/Staff Activities:

Staff

During the year, there have been significant high and low points in this category. The technical support staff has been enlarged to allow a more efficient time expenditure by the academic personnel. Mr. Walter Schneider, Coordinator of Technical Services, and Mr. Charles Broaddus, Small Vessel Operator, have only been with the Program for the last quarter but their impact has been considerable. The material productivity of Mr. Broaddus in renovating and modifying the vessels, including the R/V Rounsefell has been incredible. The presence of these two individuals is viewed by the faculty as the first "breather" experienced in several years.

On the other hand, BLM funding, which supported the largest total staff ever assembled by the Program for most of the year, suffered a lapse which is hopefully temporary and support for 6 research associate/technicians and 7 graduate students was lost. Some support has been identified for all of the graduate students.

Faculty

The Program has been honored by having both campuses recognize the value of its personnel. Dr. Schroeder was promoted to Associate Professor within the Biology Department at the University of Alabama and Dr. Vittor to Associate Professor of Biology at the University of Alabama in Birmingham. Dr. Crozier's unique status continues to be under review by UAB while the University of Alabama recognized Dr. Susan Ivester as a Visiting Assistant Professor of Biology and granted a one-year appointment to the graduate faculty.

In order to simplify the review process and reduce verbiage and redundancy, faculty activities have been summarized and are presented in Table 4.

TABLE 4

MSP FACULTY ACTIVITIES - 1976-76

	Administrative	Instructional	Research
Crozier (Ass't. Dir. MSP)	<p>Director - MSP</p> <p>Associate Director - MESSC</p> <p>Trusted Advisor - Mississippi-Alabama Sea Grant Consortium</p> <p>Chairperson - ad hoc Committee on Underwater Science</p> <p>Chairperson - Diving Control Board</p> <p>Chairperson - Staff Council</p> <p>Chairperson - Research Council</p> <p>Member - Library Affairs</p> <p>Faculty Evaluation</p> <p>Dauphin Island Sea Lab</p> <p>Staff Council</p> <p>Research Council</p>	<p>Ocean Science* Environment 3*</p> <p>Technical Methods I & II</p> <p>Intro. Coastal Environment</p> <p>Physiology of Marine Animals</p> <p>Lectures in Marine Ecology</p> <p>Lectures in Marine Vertebrate Zoology</p> <p>Graduate committees - 10</p>	<p>P.I. Artificial Reef Program</p> <p>P.I. Mobile Bay Turbidity Studies</p> <p>Papers presented: Remote Sensing Conference Mobile</p>
Hopkins (Prof.)	<p>Committee Member (MSP-MESSC) Facilities & Development</p> <p>Library Affairs</p> <p>Vessel Operations</p> <p>Staff Council</p> <p>Research Council</p> <p>Faculty Evaluation</p> <p>Diving Control Board</p> <p>Committee Member (National)</p> <p>Ad Hoc Committee on Underwater Science</p>	<p>Mini-term: Biology of Coral Reefs (2 hrs.)</p> <p>Summer Session: Lectures - Marine Ecology</p> <p>Marine Invert. Zool.</p> <p>Graduate Committee: Chairman: Grimm, D. Lee, C. Livingston, E. Iutz, C. McNeff, L.</p>	<p>Principal Investigations: Sator: 1) MAPLA Baseline & Rig Monitoring Spent 15+ days at sea as Chief Scientist in this project. 2) EPA 208 Studies in West Florida Wetuaries Papers Presented: (4 total) By Self: 1 @ Fla. Acad. Sciences</p>

Administrative

Instructional

Research

Trustee (Responsible). Inst. Committee Member (MSP-MESC):
 Facilities & Development
 Staff Council
 Research Council

Marine Ecology
 Ocean Science
 Estuarine Biology
 Lectures in Data Management
 Graduate committees - 2

P.I. Estuarine
 Meiofauna
 Paper presented
 American Society
 of Zoologists
 Manuscripts accepted
 for publication in:
 (1) Transactions of
 the American Micro-
 scopical Society
 (2) Mikrofana

Co-Author:
 1 @ Fla. Acad.
 Sciences
 1 @ Abs. J. Biol.
 1 @ Amer. Soc. Zool.
 and Herp.

Schneider (Assoc. Prof.) Chairperson - Sea Grant Association
 Coastal Research
 Gulf Estuaries
 Research Society
 Annual Meeting
 Program
 Member - MSP Diving Control Board
 - MESC Vessel Operations
 Committee, Chairperson
 - NAFLA/USJO Scientific
 Advisory Panel
 - MESC Staff Council and
 Research Council
 - Association of Underwater Science
 Science and Engineering

Intro. to Oceanography
 Oceanography of Gulf of
 Mexico
 Data Management
 Lectures in Marine Ecology
 Lectures in Estuarine Biology
 Graduate committees - 2

P.I. - Mobile Bay
 Pass Dynamics
 - Data Collection
 Platform
 Development
 - Physical Ocean-
 ography of Mobile
 Area.
 Papers Presented:
 Coastal Meteorology
 Remote Sensing
 Conference
 Jackson
 Mobile

TABLE 4. (Cont.)

Name (Title)	Administrative	Instructional	Research
Vactor (Assoc. Prof.)	<p>Chairman, MESC Facilities Utilization and Development Comm.</p> <p>Chairman, Coastal Research Coordinating Comm.</p> <p>Member, MESC Faculty Evaluation Comm.</p> <p>Member, MESC Staff Council</p> <p>Coordinator, MESC Open House (1976)</p> <p>Coordinator, Remote Sensing Conference</p>	<p>Benthic Community Structure</p> <p>Data Management*</p> <p>Seminar (summer)*</p> <p>Natural History of Commercial Invertebrates</p> <p>Statistical Analysis of Marine Data*</p> <p>Special Topics</p> <p>Graduate Committees (11)</p>	<p>F.I. - MAFIA Publications</p> <ul style="list-style-type: none"> - Marine Microbiology - Marine Studies (CAR) - Environmental Impact Statement Preparation (COE) - Literature Review on the Tonsaw River (APC)
			<p>Paper Presented: Florida Academy of Science, in MAFIA Polychaetes</p>

V. Students - Marine Science Program

Graduate:

During the past year four students successfully completed their M.S. programs and have been replaced by incoming students. The new students have come from areas as far as the University of Reading (England) and as prestigious as the University of Miami.

The totals have not increased significantly (Table 5) and that is highly desirable since the job market has not been favorable. Of the four graduates, one found a hard-money technician's position, another joined the Peace Corps while the other two have had soft-money jobs with the Program.

Unless the Program can maintain a high-quality, low quantity posture a disservice to the University and the students will result. At this time 75 Per 50 requests for information on graduate studies have been answered. This career dilemma is not unique to marine science, but is aggravated by the high cost of activity in the marine sphere and the current paucity of interest and funding from the federal government.

TABLE 5

MSP students, graduate student, 1975-76

	<u>M.S.</u>	<u>Ph D.</u>
UAT	12	2
UAB	<u>2</u>	<u>3</u>
	14	5
1974/75	13	4
1973/74	7	3
1972/73	2	2

The University of Alabama has approved an undergraduate degree program in Marine Science in the cognate departments. The Dean's Office in Arts and Sciences is acting as the advisory agent for this program. Seven requests for information have been answered directly.

In a more positive vein, the involvement of the Program with the general student population has shown remarkable growth through the Division of Special Studies (Table 6) at University of Alabama in Birmingham.

This format is particularly attractive because of the potentials inherent to the sequence. One student from UAB took MS-4, the grossly introductory course, in December, MS-5 in the Spring, returned for the entire summer session, and took a special topics problem in the Fall pre-term. Besides the development of a potential professional, over 50 undergraduates have had a real exposure to their coastal environment. Furthermore, most of these are non-science majors, and have therefore had a true awakening. These are by far the majority of college students and the minority seeking employment within the marine career field, and would therefore appear to be a prime target for guaranteeing viability to the Marine Science Program which cannot survive on a "Major field" head-count.

Summer Session:

The MEP staff contribute to the teaching effort at the Sea Lab during the summer, usually at no charge to MESSC. Virtually all of this was concentrated in the first term of Summer 1976. The data are presented in Table 6.

TABLE 6

Mini-Term	Course offered	Instructor	Credit Hours	Enrollment
December	Introduction to the Coastal Marine Environment (MS-4)	Crozler	2	11
January	Statistical Analysis of Marine Data (Birmingham Southern)	Vittor	-	5
Spring break	MS-4	Crozler	2	26
	Natural History of Commercial Marine Invertebrates (MS-5)	Vittor	(2)	12

TABLE 7

COURSES NORMALLY OFFERED BY MARINE SCIENCE PROGRAM
STAFF AT DAUPHIN ISLAND SEA LAB

Course (term offered)	Course Number		Enrollments		
	UAB	UAT	1975	1976	
Oceanography (summer)	MS-120	MS-428/528	6	11	
Ocean Science (summer)	MS-2	MS-128	7	11	
Marine Biology (summer)	MS-173	MS-412/512	18*	20	
Physiology (fall)	MS-111	MS-416/516	6	undetermined	
Technical Methods I & II (summer)	MS-122/123	MS-417/418	37	40	
Benthic Community (fall)	MS-174	MS-541	2	undetermined	
Oceanology of the Gulf (fall)	MS-121	MS-539	0	undetermined	
Marine Invertebrates I (summer)	MS-57	---	20*	20†	
Marine Invertebrates II (summer)	MS-58	---	7*	14†	
Estuarine Biology (fall)	---	---	---	undetermined	
Scientific Data Management (fall)	MS-10	MS-442	1	---	
Seminar I & II (summer)	MS-100	---	50	---	
	UAB	UAT	December mini-term (UAB)	Spring Break (UAB)	May Inter-term (UAT)
Introduction to Coastal Marine Env.	MS-4	---	11	27	---
Natural History of Commercial Marine Invertebrates	MS-5	---	---	12	---
Introduction to Coral Reefs	---	---	---	---	3

* not taught that term by MSP faculty
† responsibility shared with non-MSP instructor

TABLE 8

FIRST TERM TEACHING SUMMARY -- MSP

Class Breakdown	Sem. Cr. Hr.	Contact Hr/Wk	Class Enrollment		Student Credit		Credit Hours Claimed		
			UAB	UAT	OTHER	UAB	UAT	UAB	UAT
Technical Methods I (Crozier)	2	7	1	5	14	8	12	16	24
Ocean Science (Ivester*/Crozier)	4	20	1	2	7	4.5	5.5	18	22
Introduction to Oceanography (Schroeder)	4	20	1	2	9	5.5	6.5	22	26
Seminar (Victor/Prilewsk)	1	2	1	6	16	9	14	9	16
Special Topics (Hopkins)	2	-	1	1	1	1.5	1.5	3	3
			5	16	47	64	81	68	89

Total MSP Credit Hours = 147

Total First Session Students		
UAB	UAT	OTHER
7	20	71
1:100	1:100	29 G
1 G		

*employed under MESG contract - 90% of load
 **employed under MESG contract - 50% of load

VI. Research Activities: (Table 9)

Shelf Processes

The reporting period includes the termination of the second year of the BLM and the renewal for the third year has not yet been successfully negotiated. This situation affects the epibenthic survey (Dr. Hopkins), the infaunal studies (Dr. Vittor), Middle Grounds climatology (Dr. Schroeder) and vessel operations (Mr. Schneider) proposals originally presented to BLM/SUSIG.

The artificial Reef Project was funded for a second year but will terminate at the end of the calendar year. Sea Grant funding will hopefully be oriented toward further investigations into the biology of the "bulldozer" lobster. This decapod is extremely exciting not only because of its palatability and fishery potential, but its basic biology and life history are virtually unknown. Preliminary studies have revealed extremely peculiar feeding behavior and very high physiological tolerances which were unexpected.

Estuarine Processes

Internal support has involved Dr. Ivester's meiofaunal expertise in most of the estuarine studies and great potentials are developing for comparative studies in marsh types and management techniques. This is the primary focus for a major Sea Grant proposal involving Drs. Ivester and Schroeder.

The continuation of the Coastal Area Board (CAB) sponsored marsh value study is in doubt, although Year I has been successfully completed by Ms. Stout and Dr. Vittor (with Dr. Panatmat of Auburn University). The CAB has been criticized by the Office of Coastal Zone Management (OCZM) for its emphasis on background data collection rather than on planning processes. This question may not be resolved until March, 1977. Unless interim data collection can be made, the first year's work will have been largely wasted.

2014-2015 BUDGET SUMMARY - 2015

	<u>Salaries</u>	<u>Operating Expenses*</u>	
ADM - Hopkins	\$104,200	\$ 26,350	\$ 32,500
Victor	33,070	10,500	16,000
Schroeder	1,100	500	250
OSD - Crozier	12,250	8,000	6,000
Schroeder	11,250	13,000	5,500
HEAC - Twester	16,500	2,000	---
General Administration - Crozier	---	10,000	---
EPA - Crozier	---	2,000	---
Risk - Crozier	2,500	2,500	1,000
Vehicle Operations - Schroeder/Crozier	---	8,000	---
200 - Victor	1,500	---	---
	\$181,870	\$ 82,850	\$ 61,950
WASA - Schroeder + Crozier	\$ 2,100	\$ 9,000	\$ 900
	106,000	9,000	4,400
Programs - Victor	\$ 300	\$ 1,700	---

* Includes Fringe Benefits
 N/A - None