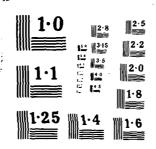
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AMERICAN SOCIETY FOR ENGINEERING EDUCATION 1985 NAVY/ASEE SUMMER FACULTY RESEARCH PROGRAM CONTRACT NO0014-83-C-0039

FINAL REPORT

Submitted & Prepared By: Charles H. Carter Acting Director, Projects and Federal Relations

> Date of Report: May 15, 1986



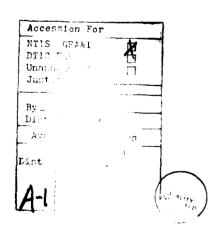
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AMERICAN SOCIETY FOR ENGINEERING EDUCATION

1985 NAVY/ASEE SUMMER FACULTY RESEARCH PROGRAM

Contract N00014-83-C-0039

Contract Period: 1 October 1984 - 30 September 1985

FINAL REPORT

Submitted & Prepared By: Charles H. Carter Acting Director, Projects and Federal Relations

Date Prepared: May 15, 1986

INTRODUCTION

During the summer of 1985, 159 engineering and science faculty members from 110 universities and colleges located in 39 states and Puerto Rico conducted research at 15 Navy research and development centers. This brought to 591 the number of such participants since the program started in 1979. During these seven years, ASEE has administered the summer faculty programs under a series of contracts from the Office of Naval Research.

Since 1984, the program has been managed for ASEE by John Lisack, Jr., Director of Membership, Projects and Federal Relations. The scientific officer designated by ONR to monitor the program for the Navy has been Dr. Robert L. Sternberg, ONR - Boston Detachment.

Copies of the final report are being sent to those designated in the contract to receive reports which are not technical reports as follows:

ADDRESSEE	DODADD Code	No. of Copies
Scientific Officer (Dr. Robert L. Sternberg)	N00014	1*
Administrative Contract Officer	32101A	1*

^{*}unclassified/unlimited

On an informal basis copies are also being sent to Dr. Robert Ryan, the original contract Scientific Officer, to the summer faculty program manager at each of the fifteen participating laboratories and to members of ASEE's Summer Faculty Program Committee and Projects Board.

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CONTRACT HISTORY

The basic contract through Modification POCOO5 provided \$807,480.00 for 109 ten (10) week awards for the 1985 program. Modification POCOC6 assigned administrative responsibility of this contract to DCAA.

Modifications P00007 through P00013 authorized \$989,588.00 for 122 ten (10) week awards for the 1984 program. Modification P00014 through P0002: authorized \$1,240,880.00 in new funds and \$50,000.00 in unused funds from the 1984 program for a total funding of 161 fellowships. Of the funded fellowships, 159 participants utilized 159.4 ten week fellowships. NADC, NAMRL, NRL, NSRDC, and NSWC did not utilize 28 weeks of the authorized number of 10 week fellowships. Twelve of the unused 28 weeks of fellowships were used to support weeks of participants at NOSC and NUSC. This leaves '6 weeks of fellowships authorized but not used in 1985.

FUNDING SOURCE

Pro	posed	d Actual				
Center	<u>Fur</u>	ded 3y Participants/# of Weeks		Participants/# of Weeks		
	ONR	Center	Full-Time	Part-Time	Extended	Totals
NADC NAMRL NCSC NMRI NORDA NOSC NPRDC NRDC NSRDC NSWC NUSC	4 3 4 4 3 5 5 1 4 5 5 6	11 4 0 1 0 5 7 29 3 6	13/130 6/60 4/40 5/50 3/30 10/100 10/100 41/410 11/110 10/100 6/160	1/3 1/6 1/8 2/17 2/13 1/7	1/12	14/142 7/63 4/40 5/50 3/30 11/160 12/120 43/427 13/123 11/107 22/246
NWC NSMRL NTEC NBL	4 3 2 1	3 0 1 0	5/50 3/30 3/30 1/10	1/5 	1/15	7/70 3/30 3/30 1/10
TOTALS	68 *	93	104/1410	9/59	9/125	159/1594

NOTES: \bullet Includes 10 minority appointments and 6 appointments using carry over funds from 1984 contract.

As noted in the table above, NAMRL, NOSC, NPRDC, NRL, NSRDC, NSWC, and NWC supported Fellows for less than full time and extensions were granted to NADC, NPRDC, NUSC and NWC utilizing funds either saved from the less than ten week participants or provided for in the contract.

Center	Less than 10 weeks	Extended beyond 10 weeks
MADC		Miskovsky 2 weeks
TWC	Gruber 5 weeks	Vanderah 5 weeks
NAMRL	Senter 7 weeks	
MSRDC	Baeslack 3 weeks	
	Mitchiner 4 weeks	
NOSC	Penchina 4 weeks	
NPRDC	Peterson 2 weeks	Thomas 2 weeks
NSWC	Vassos 3 weeks	
NUSC		Conte 3 weeks
		Leon 5 weeks
		Madych 5 weeks
		Morrison 3 weeks
		Roxin 5 weeks
		Verma 5 weeks
NRL	Blaisdell 2 weeks	
	Hoganson 1 week	
	•	
		
Total	31 weeks	35 weeks*

^{*} The four weeks were provided from an unused 10 week fellowship.

One hundred and fifty-nine (159) participants utilized 159.4 full-time fellowships. The contract provided funds for 155 new fellowships. Six (6) additional fellowships were authorized from prior year unused funds remaining in the contract.

The original proposal requested \$1,207,037.00 for 150 fellowships of which \$50,000.00 in 1984 funds would be used and \$1,157,037.00 in new funds would be provided. Later in the year, an additional \$83,343.00 was provided for eleven more fellowships. Therefore, the 1985 program was authorized at a total cost of \$1,290,880.00 for 161 ten (10) week fellowships. Payments to ASEE were made on a cash reimbursement basis as follows:

<u>Vo. #</u>	Inv. #	Date	Date Paid	Amount
15	52359	02/08/85	03/04/85	\$ 15,811.68
16	52630	03/25/85	04/11/85	11,405.05
17	52852	04/23/85	05/10/85	13,123.13
18	53217	05/30/85	06/02/85	17,723.54
19	53248	06/06/85	07/05/85	262,559.24
20	53379	07/10/85	08/08/85	348,422.34
21	53471	08/19/85	10/25/85	336,211.65
22	53592	09/20/85	10/25/95	150,200.42
23	53896	12/05/85		63,680.33
Total				\$1,234,137.31

FINANCIAL REPORT

The revised Ninth Interim Financial Statement is Attachment A. Except for 31 final stipend payments of \$200.00 yet to be paid upon submission of final technical abstracts by participants, and a few late participant travel claims, this report covers the expenses for the 1985 program. The unliquidated obligations should not exceed \$16,000.00. Thus, the estimated cost of the 1985 program is \$1,250,897.43. The contract authorized expenditure of \$1,290,880.00. The estimated savings of \$39,983.00 red from the following:

- a) Funding was based on 1,610 participant-weeks, however, 1,594 weeks were filled. This resulted in an underrun of \$10,400.00.
- b) Total administrative expenses for 161 participants was \$123,920.31 in the proposal. Actually, the administrative expenses for the 159 participants was \$120,115.89 for an underrun of \$3,804.42
- c) Provision in the budget for travel and per diem for preprogram visit and for the summer was estimated at \$800.00 per participant for 161 participants or \$128,800.00. Through October 31, 1985, participant travel and per diem reimbursed amc inted to \$93,021.42 with approximately \$10,000.00 worth of travel yet to be claimed. Provided that this amount is fully claimed, average travel reimbursement costs will be \$647.00 and \$25,778.58 less than budget will be spent.

Average travel had been \$625.00 in 1981, \$593.00 in 1982, \$540.00 in 1983 and \$552.00 in 1984 per participant. This substantial underrun resulted from the fact that fewer than the expected number of participants made preprogram visits. Also, an increasing numer of participants seem to be selected from among applicants within commuting distance of the laboratories. They claimed little or no travel reimbursement.

Tabulated below are the comparative expenses for all seven years of the Navy Summer Faculty Program using estimates based on this report for 1985.

YEARLY COMPARISONS

Progr	<u>am</u>	Total Expense	Direct & Ind. Admin. Expense	No. of Part.	Cost Per Part.	Admin. Cost Per Part.
1979 1980	\$	96,696 160.622	\$ 25,857 (27.8%) 32.342 (20.1%)	16 26	\$6,231	\$1,678 1.243
1981		338,554	38,413 (11.4%)	59	5,738	651
1982		650,388	62,754 (9.6%)	97	6,710	647
1 383		767,000	62,790*(3.0%)	111	5,309	565
1984 1985	31	941,126 250,897	74,112**(8.0%) \$117.457***(9.0%)	122 159	7,714 3 7.867	607 3 738

^{(*} This includes a management fee of \$14,380)
(** This includes a management fee of \$14,000)

With about \$6,200 yet to be paid, \$1,021,000 has been disbursed as stipends to participants by October \$31,1985.

Preparation for the 1985 program included printing and distribution during late October of 1984 of a combined announcement and application form and a program poster. Mailing labels were obtained as follows:

Flyers:

American Institute of Biological Sciences American Institute of Physics American Chemical Society American Mathematical Society American Society for Engineering Education	1,580 1,518 1,247	members dept. heads dept. heads dept. heads dept. heads	
Total	11,148	Labels	
Posters:			
American Association for Advancement of Science American Society for Engineering Education Subscribers to DOE insider Newsletter Human Factors Society National Council of University Research Admin. American Psychological Association	8,681 5,373 2,362 1,691	members nembers subscribers nembers nembers nembers	
Total	44 ,354	Labels	

Copies of the flyer and poster are Attachments 31 and 32.

^{(***}This inloudes a management fee of \$14,500)

1985 PROGRAM APPLICANTS AND PARTICIPANTS

By the February 1, 1985, deadline, 482 applications had been received. An analysis of the distribution of both applicants and participants including a breakdown of the applicants by sex, race and previous summer faculty program participation is Attachment C. One hundred and fifty-nine (159) or 35% were appointed. This is about one in three which is higher than the previous year.

The applications were sent to the laboratories chosen by the applicants for review and recommendation. The designated Navy program administrator at each laboratory coordinated the review process after which he submitted a priority list to ASEE. The ASEE program office offered appointments by telephone based on these lists and, upon verbal acceptance, followed up with a letter of appointment. (Attachment D) Each appointee was asked to sign and return a formal acceptance. (Attachment E)

APPOINTMENT ANALYSIS

R&D Center	Applicants	Offers Ac	cceptances
NADC	36	24	14
NAMRL	17	8	7
NCSC	14	6	4
NMRI	42	5	5
NORDA	20	5	3
NOSC	36	18	1 1
NPRDC	59	13	12
NRL	114	69	43
NSRDC	37	19	13
73WC	28	20	11
NUSC	32	26	22
ИМС	33	10	7
NTEC	3	3	3
NBL	1	1	1
NSMRL	_10_	3	
TOTAL	482	230 (47.7	%) 159(32.0 %)

Thus, after reviewing the applications, the laboratories identified the applicants having talents that might well serve their research activities. It took 230 offers to gain 159 acceptances. To put it another way, 4 out of 5 (actually 69%) accepted appointments when offered.

Based on the numbers in Attachment C, 7% of the applicants were female. Twenty-six percent of the female applicants or one out of four were appointed compared to one out of three for all applicants.

The 37 blacks who applied constituted 7% of the applicants and the 12 who were appointed constituted 7% of the participants. One out of three blacks who applied or 32% were appointed compared to one out of three of all applicants.

The Oriental/Asian component of 55 constituted 11% of the applicants. The 14 appointed were 3% of all participants and 25% of the Oriental/Asian applicants.

Finally, 140 or 19% of the applicants indicated on their application forms that they had participated previously in summer faculty programs aponsored by the Navy, NASA, or DOE. Seventy or 48% of the appointments went to this group which constituted 16% of the applicants. A comment on these statistics is included in the conclusions and recommendations.

Attachment F is a list of the 159 participants showing their institutional addresses.

Attachment G lists by states the institutions represented by applicants and participants.

Attachment H is an analysis of applicants and participants by laboratories, academic rank, age and highest degree. Both applicants and participants were about evenly divided among the professorial ranks. Ninety-seven percent of applicants and 91% of the participants held doctoral degrees. The average age of both applicants and participants was just over 42 years. The youngest applicant was 25 and the oldest 78. The youngest participant was 25 and the oldest was 78.

Attachment I is a matrix showing how both applicants and participants were distributed by discipline among the fifteen laboratories.

PROGRAM EVALUATION QUESTIONNAIRE

At the time this report was prepared, 142 of the 159 participants had returned evaluation questionnaires. The results are summarized in Attachment J which summarizes all substantive critical comments included in the questionnaires of the respondents.

One hundred and ninteen or 34% felt that they had been engaged effectively in research of importance to the mission of their laboratories and the Navy.

Only twenty-three or 16% felt that they had been ineffective. Judging from their comments, this resulted from failure of their laboratory colleagues to take their involvement seriously or to take advantage of their special competencies.

One hundred and twenty-eight (90%) participants considered it either "very likely" or "likely" that their summer experience would be the basis for continuing research of interest to the Navy and all but one of the participants expected to maintain relations with their professionsl peers in the laboratories.

All but three of the respondents thought that the summer program had enhanced their research interests and capabilities and all would recommend the program to their faculty colleagues.

The questionnaire results show that the summer program experience will influence the respondents' teaching in one or more of five ways but mostly by integrating new information into their courses and by sharing research experience.

Respondents learned of the program mostly by receiving the announcement in the mail or by communication from colleagues.

Of the respondents who had applied simultaneously to the DOE, NASA and Air Force summer programs, 24 were offered appointments but declined them in favor of the Navy program.

All but three respondents mixed with and learned of the research of at least a few laboratory researchers. The comments, as in past years, include a few criticisms that the laboratories did not make enough effort to familiarize the participants with research and researchers outside their specific assignment.

ASEE was praised for timely payment of stipends but was criticized by one respondant for late payment of travel reimbursements.

Of the 15 respondents who would be unwilling to return, most said it was because the stipend was not high enough compared to other summer opportunities.

A continuing deficiency in the administration of the program is the failure of the laboratories to provide information in a systematic way to participants about submission of proposals to continue research at their home institutions. This is reflected in the 66 respondents who said they received no such information.

The problems posed by security clearance have decreased steadily but nine respondants still reported the security requirements as an obstacle to their research.

Based on the responses of the 142 participants the program continues to provide them with a professionally rewarding experience. Their effectiveness in advancing Navy research should be assessed by responsible Navy officials.

Attachment J shows the nine month salary of 141 of 142 of the respondents to the questionnaire. The average salary was \$31,509 for 9 months or \$875 weekly and the median was \$30,600 for 9 months or \$850 weekly. The lowest salary was \$12,750 for 9 months and the highest was \$60,000 for 9 months. Only 24 individuals or 16% had a weekly salary of less than \$650. It is evident that the majority of individuals are taking a financial loss in order to participate in this program.

ASEE SUMMER FACULTY PROGRAM COMMITTEE

The ASEE Summer Faculty program committee held its annual meeting on October 3, 1985 at Lewis Research Senter in Sleveland Ohio. The Dase Western Reserve University served as host. Program directors for MASA reported on their 1985 programs and plans for 1986. John Lisack, Jr. reported on the DOE program.

The committee recommended that coordinating visitation teams consisting of members of the committee and the ASEE Projects Board try to visit the centers in 1986. This will be discussed with the Projects Board and appropriate action taken.

The committee voted unanimously to increase the basic stipend level to \$7,300.30 per ten (10) week appointment during the 1986 program. 0.3 will initiate a three-tiered stipend for faculty during 1986 in an effort to attract some experienced researchers from larger research-oriented Universities.

Minutes of the meeting of the committee are Attachment K. The letter of appointment showing the makeup of the committee is Attachment L.

FINANCIAL MANAGEMENT

The preliminary final financial statement is Attachment A. Monies received from the Navy were credited to ASEE account number 3407. Provisional indirect cost rate applied to direct costs exclusive of participant stipends and travel was 39.73%. A final rate will be negotiated and used in the final financial statement.

Stipends of \$650.00 per week were paid in four installments.

- -\$2,100.00 at the beginning
- -\$2,100.00 after 4 weeks
- -\$2,100.00 after 9 weeks
- -3 200.00 upon submission of abstract or research summary.

Withholding payment of the final \$200.00 of the stipend has proven relatively effective in motivating participants to submit promptly their final report in the form of a technical abstract or research summary.

Invoices were submitted to and paid by the Navy as indicated in Section 2 of this report.

CONCLUSIONS AND RECOMMENDATIONS

ASEE continues to value its role in seeing that these programs are conducted for the mutual benefit of both the participant and the sponsoring agencies.

This past summer has seen a proliferation of special arrangements for particular faculty members to conduct research for periods greater or less than the specified ten weeks. While providing this flexibility to meet the desires of the laboratories, ASEE has been faced with increasingly complicated administrative arrangements. The ASEE Summer Faculty Committee is on record that ten weeks provides participants with a reasonable opportunity to achieve significant research results. Anything less is objected to as not compatible with the most effective use of the summer opportunities. ASEE is agreeable to a shorter than ten week appointment in particular cases only if the Navy laboratories involved insist that such an appointment will further their research. Laboratories should be encouraged to recommend for appointment only those applicants available for a full, uninterrupted ten weeks.

ASEE has no way of knowing what emphasis is being placed on selection of racial minority applicants during the internal laboratory selection process. Attachment C shows that only 12 of the 37 black applicants were selected by the laboratories. There was at least one black applicant to each of ten of the fifteen laboratories. Although 37 black applicants out of 482 does not seem like a very high number, it represents the best efforts of ASEE to encourage applications from a relatively small pool of black engineering and science faculty members. Encouraging the Navy laboratories to provide opportunities should be more vigorously pursued by the Navy.

In an effort to recruit more black participants, Dr. Francis Graham, Hampton Institute, was hired as a consultant to encourage and promote black applicants for this program. Through the use of faculty and administrative heads of predominantly Black Colleges and Universities, contacts were made in all of the research areas listed in the announcement as possible opportunities for summer employment for qualified blacks. All applicants that applied last year were encouraged to reapply this year. A personal letter was sent to the participants inquiring if they would be interested in participating in the program next year and all responded that they would.

The greatest number of applications came from physicists, mathematicians and chemists followed by electrical and mechanical engineers. Total science applicants outnumber engineers by almost 2.5 to one. These ratios are about the same as in previous years.

No conclusion is drawn from this other than as a representative of the engineering education community, ASEE would like to see more engineering faculty appointed.

Once again, over half of the respondents to ASEE's evaluation questionnaire indicated that they had not received any guidance from their laboratory about submission of proposals for continuation of their research at their home institution. This seems to disavow the announced objectives of the program.

In the comments, one participant who had been in an Air Force summer program wrote approvingly of the Air Force's award of mini-grants based on proposals submitted by summer faculty participants. The Topical States of 50% of participants apply and most receive grants of about \$10,000.00 for the following academic year and summer. The Navy might well consider some such program to perpetuate its research relationship with summer program participants.

Based on both formal and informal comments from participants, it seems obvious that despite seven summers of operation the purposes of the program are not fully appreciated by many of the laboratory personnel who receive the summer participants. As part of a seven year review and evaluation of the program which ASEE's committee strongly recommends, the director of that study could be asked to educate all whom he might contact in connection with it about the program, what participants expect and how they should be treated. This educational function would be restricted to the people and places revealed in the study to the laboratory under mistaken notions of what it's all about.

At its October 1985 meeting the ASEE committee agreed that the Navy program had proven well worthwhile for participating faculty members and the Navy should be encouraged to expand it.

AMERICAN SOCIETY FOR ENGINEERING EDUCATION 1985 NAVY/ASEE SUMMER FACULTY RESEARCH PROGRAM NINTH INTERIM FINANICAL REPORT

ADMINISTRATIVE EXPENSE	TOT AL	TOTAL	TOTAL
		10/1/85-10/31/85	10/1/84-10/31-85
SALARIES	33,980.03	2,270.76	36,250.79
TEMPORARY SALARIES	2,297.00	0.00	2,297.00
BENEFITS	5,527.84	573.14	6,100.98
POST AL SERVICE	831.08	0.00	831.08
TELEPHONE	662.49	0.00	662.49
EXPRESS & FREIGHT	113.03	0.00	113.03
SUPPLIES	3,829.77	0.00	3,829.77
PUBLICATIONS & BOOKS	203.86	5.45	209.31
ACCOUNT ANTS FEES	275.00	C.00	275.00
CONSULTANT	425.00	0.00	425.00
MACHINE RENT AL	361.00	0.00	361.00
WORD PROSSESSING	161.69	0.00	161.69
MISC. EXPENSE	1.60	0.00	1.60
DATA PROCESSING	9,555.84	0.00	9,555.84
PRINTING	4,177.89	0.00	4,177.89
TYPESETTING	679.41	0.00	679.41
GRAPHICS	5.00	0.00	5.00
DUPLICATING	115.04	0.00	115.04
MAIL HOUSE CHARGE	309.80	0.00	309.80
MAILING LABELS	1,127.36	0.00	1,127.36
MAIL HOUSE POST AGE	756.51	0.00	756.51
TRAVEL	1,329.85	0.00	1,329.85
REGISTRATION FEES	111.99	0.00	111.99
COMMITTEE TRAVEL	649.04	0.00	649.04
MEETING EXPENSE	265.04	0.00	265.04
TOTAL DIRECT EXPENSE	67,752.16	2,849.35	70,601.51
INDIRECT @ 39 73 %	26,917.93	1,132.05	28,049.98
GRANTS & CONTRACTS	4,414.40	0.00	4,414.40
TOT AL ADMIN EXPENSE	\$99,084.49	\$3,981.40	\$103,065.89
PARTICIPANT EXPENSE			
STIPENDS	1,018,700.00	2,300.00	1,021,000
TRAVEL	93,021.42	0.00	93,021.42
TOTAL PARTICIPANT EXPENSE	\$1,111,721.42	\$2,300.00	\$1,114,021.42
TOTAL OPERATING EXPENSE	1,210,805.91	6,281.40	1,217,087.31
FIXED FEE	14,500.00	0.00	14,500.00
FEE/PARTIAL/EXTENDED/APPT	2,550.00	0.00	2,550.00
TOTAL PROGRAM EXPENSE	\$1,227,855.91	\$6,281.40	\$1,234,137.31

Summer Faculty Programs 1985

For U.S. citizens with teaching or research appointments in universities or colleges, preferably with two or more years of experience.



National Aeronautics

& Space Administration







Department of Energy



American Society for Engineering Education

INTRODUCTION: NASA, the Office of Naval Research and the Department of Energy will sponsor 1985 Summer Faculty Research Programs at research and development installations listed below.

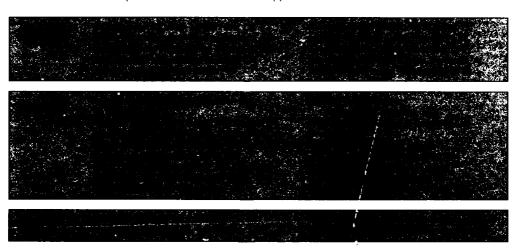
APPOINTMENTS: Participants must be U.S. citizens, and for Navy appointments either holding or eligible for a Department of Defense Security Clearance of SEC-RET. A minimum of two years' experience in teaching or research is preferred. About 400 appointments will be made to teaching or research faculty of colleges and universities

OBJECTIVES: (1) To engage university faculty members in the research problems of the various

laboratories. (2) To develop the basis for continuing research of interest to NASA, the Navy and DOE at the faculty members' institutions. (3) To establish continuing relations among faculty members and their professional peers in NASA, the Navy and DOE. (4) To enhance the research interests and capabilities of science and engineering faculty members.

TERMS: Stipends are \$650 per week for ten weeks. A travel allowance will be paid for travel to and from the research site, and for a preprogram visit also.

DURATION: Ten weeks from June 3 to August 9. 1985. The dates may be changed to accommodate appointees.



For application forms and information contact:

Summer Faculty Programs
American Society for Engineering Education
11 Dupont Circle, Suite 200
Washington, D.C. 20036

ONLY U.S. CITIZENS ARE ELIGIBLE

APPLICATION DEADLINE: February 1, 1985 OFFERS OF APPOINTMENT: After March 1, 1985 NASA/NAVY/DOE/ASEE ARE EQUAL OPPORTUNITY EMPLOYERS

ATTACHMENT C

American Society for Engineering Education 1985 Navy Summer Faculty Research Program Discribution by Sex, Race and Previous SPF Participation

Center	All Appl. Total	Female	31ack	Hisp.	Ind.	Orn.	Prev. SFP
NADC	36-14	3- 0	0-0	1-0	1-0	4-1	14
NAMEL	17- 7	1-0	1-0	1-0	1-0	1-1	а
NCSC	14- 4	2-0	1-1	1-1	0-0	1-0	
MMRI	42- 5	1-0	5-2	0-0	1-0	4-0	4 7
NORDA	20- 3	3-0	4-1	0-0	0-0	1-0	4
NOSC	36-11	3-0	3-1	0-0	0-0	5-0	14
NPRDC	59-12	9- 3	4-0	2-0	0-0	3-0	12
NRL	114-43	5 - 2	14-5	3-1	0-0	1 3- 3	35
NSRDC	37-13	2-1	1-1	ō - o	0-0	7-3	10
NSWC	28-11	2-0	0-0	0-0	0-0	4-1	10
MUSC	32-22	1-1	0-0	0-0	1-0	6-4	12
MAC	33- 7	1-0	3-1	1-0	0-0	6-1	10
MTEC	3-3	1 -1	0-0	0-0	0-0	0-0	0
NBL	1- 1	0-0	0-0	0-0	0-0	0-0	0
NSMRL	10- 3	1-1	1-0	0-0	0-0	0-0	0
Totals	482-159	34~9	37-12	9-2	3- 0	55-14	140



American Society for Engineering Education suite 200 eleven dupont circle, washington, d.c. 20036

(202) 293-7080

SAMPLE LETTER OF APPOINTMENT

March 13, 1985

Assoc. Prof. Isaac D. Abella Physics Department University of Chicago 5734 South Ellis Avenue (HGS-443) Chicago, Illinois 60637

Dear Prof. Abella:

I am pleased to confirm your appointment to a 1985 summer faculty research associateship in the Navy/ASEE Summer Faculty Research Program.

Under the terms of the appointment you will receive \$6,500 for ten weeks. You will be paid \$2,100 after you arrive. \$2,100 during the fifth week, \$2,100 during the ninth week and \$200 upon submission of a brief report on your research accomplishments during the summer and an evaluation questionnaire. All stipends will be paid directly to you by ASEE. The stipend for this program is taxable.

The Office of Naval Research has authorized funds for you to visit the Navy center at which you will carry out your research sometime before the beginning of your ten-wee- appointment. The dates for this preprogram visit should be decided by you and your colleague at the Navy research center. Your travel to and from the research site for the 10-week summer period will also be reimbursed. You will be able to claim reimbursement for the economy class (Y-class) airfare between the airport nearest your residence and the airport nearest your research site, and during your pre-program visit meals and lodging not to exceed \$75 per day for not more than two days. If you drive your personal car to the research site to have it available during the summer, we will reimburse you at the rate of 20 cents per mile up to a total not to exceed the economy class airfare available at the time. We cannot cover the added cost of food and lodging while you are on the way to and from the site for your 10-week research period. Enclosed are travel forms which you can submit to ASEE to claim reimbursement for your expenses (allow four weeks for processing of claims). If necessary, we can provide you with a travel advance on request, but ASEE must receive requests for travel advances at least 8 working days prior to your date of departure.

You will be responsible for obtaining and paying for whatever housing you may require. The Navy center may be able to assist you in finding a suitable place to stay during your ten-week sojourn.

Although June 3 is the announced starting date, we are aware that this may not be compatible with the increasingly varied university calendars. Therefore, if necessary you may arrange a more convenient starting date. Any Monday is acceptable to ASEE, but the starting date should also be acceptable to your colleague at the Navy research center. We do insist that ten work weeks be devoted to the summer research. As soon as you decide on a starting date, please let me know.

Your file and pay record will be maintained at ASEE headquarters and questions concerning your stipends and travel reimbursements should be directed to ASEE. Should you have questions related to your research activities at the center, you should address them to your colleague there. Your colleague or the laboratory's summer program coordinator may be contacting you very soon to obtain information needed for security clearance. Because the clearance procedure is time consuming, please respond promptly so that it can be completed prior to the time you arrive for the summer. Even though not all research asssignments require clearance, some Navy labs may deny access to certain areas (for example, the library) to uncleared participants or require them to get a guest pass every day.

To complete our official record, we would appreciate your signing and returning the enclosed acceptance form.

Feedback from participants and from laboratory personnel involved in the Navy-ASEE Summer Faculty Program has been uniformly positive since the program began in 1979. I look forward to helping you enjoy a personally and professional rewarding experience.

Sincerely,

John Lizack, Jr.
Director, Membership,

Projects and Federal Relations

Enclosures

cc: R. Sternberg Program Managers

AMERICAN SOCIETY FOR ENGINEERING EDUCATION Navy/ASEE Summer Faculty Research Program Acceptance of Appointment

NAME:
I hereby accept appointment to a ten-week research appointment as
described in the letter of appointment dated March 13, 1985 from John
Lisack, Jr., manager for ASEE of the Navy/ASEE Summer Faculty Research
Program. This acceptance acknowledges the terms of the appointment
specified in that letter.
Signed
NOTE: This appointment is not a contract by the Navy or ASEE for your personal services. The role is that of a self-employed professional who has agreed to conduct and report on research of interest both to yourself and the Navy.
The date you propose to start your summer research. This should preferably be on June 3 or a Monday as close to that date as possible:
Date:

NAVY/ASEE Summer Faculty Participants~1985

ATTACHMENT F.

ISAAC D. ABELLA UNIV OF CHICAGO PHYSICS 5734 S. ELLIS AVENUE HGS-443 CHICAGO ,IL 60637 FREDERICK CARSON AMERICAN UNIVERSITY CHEMISTRY DEPARTMENT OF CHEMISTRY WASHINGTON ,DC 20016

GLEN M. ATLAS
RUTGERS UNIVERSITY
ELECTRICAL ENGINEERING
DEPT. OF ELECTRICAL ENGR'G
P.O. BOX #909
PISCATAWAY, NJ 08854

CRAIG CEGAVSKE STATE UNIV OF NY-BINGHAMTON BIOLOGICAL SCIENCES DEPT. OF BIOLOGICAL SCIENCES BINGHAMTON ,NY 13901

JOSEPH AUGUSTUS
MANHATTAN COLLEGE-RIVERDALE
MECHANICAL ENGINEERING
MECHANICAL ENGINEERING DEPT.
RIVERDALE, NY 10471

GERALD CHACHERE HOWARD UNIVERSITY MATHEMATICS 2441 6TH STREET, NW WASHINGTON ,DC 20059

WILLIAM A. BAESLACK OHIO STATE UNIV-COLUMBUS METALURGICAL ENGINEERING 190 W. 19TH AVENUE COLUMBUS, OH 43210 DAVID DEAN CHESAK
ST. JOSEPH'S COLLEGE
PHYSICS
DEPT. OF MATHEMATICS/PHYSICS
RENSSELAER, IN 47978

CAROLYN F. BAILEY HOWARD UNIVERSITY PSYCHOLOGY NEC SCHOOL OF EDUCATION 2400 6TH STREET WASHINGTON ,DC 20059 RICHARD V. CONTE
MANHATTAN COLLEGE-RIVERDALE
MECHANICAL ENGINEERING
MECHANICAL ENGR'G DEPT.
RIVERDALE ,NY 10471

ATTACHMENT F.

. ROBERT BARRETT CLEMSON UNIVERSITY ECONOMICS SIRRINE HALL CLEMSON ,SC 29631

JOHN A. COONEY DREXEL UNIV PHYSICS PHYSICS DEPARTMENT 32ND PHILADELPHIA ,PA 19104

CLIFFORD A BECKER WASHBURN UNIVERSITY CHEMISTRY DEPARTMENT OF CHEMISTRY TOPEKA ,KS 66621

DAVID LEE COZART MERCER UNIVERSITY MATHEMATICS, COMP SCI NEC DEPARTMENT OF COMPUTER SCIENCE 1400 COLEMAN AVENUE MACON ,GA 31207

FERNANDO L BENITEZ UNIV OF PUERTO RICO-MAYAGUEZ UNIV OF SOUTH ALABAMA MECHANICAL ENGINEERING MECHANICAL ENGINEERING DEPT. RECINTO UNIVERSITARIO MAYAGUEZ ,PR 00708

JOHN E. CRUTHIRDS MATHEMATICS, COMP SCI NEC DEPT. OF MATH/STATISTICS MOBILE ,AL 36688

BRUCE A. BLACK ROSE-HULMAN INST OF TECH ELECTRICAL ENGINEERING 5500 WABASH AVENUE TERRE HAUTE ,IN 47803

VICTOR V. DANNON WINTHROP COLLEGE MATHEMATICS DEPT. OF MATHEMATICS ROCK HILL ,SC 29730

IONA N.L. BLACK HAMPTON INSTITUTE CHEMISTRY P.O. BOX 6472 HAMPTON , VA 23668

JOHN S. DaPONTE SOUTHERN CONNECTICUT UNIV. COMPUTER SCIENCES 501 CRESCENT STREET NEW HAVEN ,CT 06515

ATTACHMENT F.

JAMES H. BLAISDELL HUMBOLDT STATE UNIVERSITY OTHER SCIENCES HUMBOLDT LAB. FOR APPLIED RES. DEPT. OF ELECTRICAL ENGR'S
IN ARTIFICIAL INTELLIGENCE BLACKSBURG, VA 24061 ARCATA ,JA 95521

WILLIAM A. DAVIS VPI & SU-BLACKSBURG ELECTRICAL ENGINEERING

BRUCE R. BRANCHINI UNIV OF WISCONSIN-PARKSIDE CHEMISTRY DEPT. OF CHEMISTRY KENOSHA, WI 53141

WILLIAM DAWSON UNIV OF FLORIDA MEDICAL SCIENCES BOX J-284, JHMHC GAINESVILLE ,FL 32610

LEWIS M. BROCK UNIV OF KENTUCKY-LEXINGTON ENGINEERING NEC ENGINEERING MECHANICS 00461 LEXINGTON , KY 40506

JEFFREY DESCHAMPS JOHNS HOPKINS UNIV. MEDICAL SCIENCES DEPARTMENT OF PHARMACOLOGY 725 N. WOLFE STREET BALTIMORE ,MD 21205

RONALD BULBULIAN KANSAS STATE UNIV-MANHATTAN MEDICAL SCIENCES DEPARTMENT OF PEDLS MANHATTAN ,KS 66506

RONA DILLON SOUTHERN ILLINOIS COLLEGE PSYCHOLOGY DEPT. OF EDUCATIONAL PSYCH. CARBONDALE ,IL 62901

FREDERICK BUONI FLORIDA INST OF TECH MATHEMATICS, COMP SCI NEC 150 WEST UNIVERSITY BLVD. MELBOURNE ,FL 32901

MORGAN DONOVAN UNIV OF SOUTH ALABAMA MECHANICAL ENGINEERING EGCB 212 MOBILE ,AL 36688

PATRICK B. BUTLER UNIV OF IOWA MECHANICAL ENGINEERING DEPT. OF MECHANICAL ENGR'G 1201 E. 38TH STREET IOWA CITY ,IA 52242

KENNETH DUNIPACE PURDUE UNIV-INDIANAPOLIS ENGINEERING NEC INDIANAPOLIS ,IN 46268

BRIAN P. BUTZ TEMPLE UNIVERSITY ELECTRICAL ENGINEERING COLLEGE OF ENGR'G & ARCH. TU-084-53 PHILADELPHIA ,PA 19122

ROBERT M. EASTMAN UNIV OF MISSOURI INDUSTRIAL ENGINEERING 323 EE BUILDING COLUMBIA , MO 65211

JAMES S. BYRNES UNIV OF MASSACHUSETTS MATHEMATICS HARBOR CAMPUS BOSTON ,MA 02125

JOHN EFTIS GEORGE WASHINGTON UNIV MECHANICAL ENGINEERING MECHANICAL ENGINEERING DEPT. WASHINGTON ,DC 20052

JAMES A. CADZOW ARIZONA STATE UNIVERSITY ELECTRICAL ENGINEERING

JAMES ELLISON UNIV OF NEW MEXICO MATHEMATICS DEPT. OF ELECT/COMPUTER ENGR'G MATHEMATICS DEPARTMENT ALBUQUERQUE ,NM 87131

TEMPE ,AZ 85287

PHILIP M. CARRION ROBERT A. FALTYNEK COLUMBIA COLLEGE AMERICAN UNIVERSITY GEOLOGICAL SCIENCES CHEMISTRY ALDRIDGE LAB. OF APPL. GEOPHYS 4400 MASSACHUSETTS AVENUE NEW YORK CITY ,NY 10027 WASHINGTON ,DC 20016

JARY B. FERRELL TEXAS TECH UNIVERSITY MECHANICAL ENGINEERING

P.O. BOX 4289 LUBBOCK ,TX 79409 HARVEY HUBER BEAVER COLLEGE

PHYSICS

DEPT. OF CHEM./PHYSICS GLENSIDE ,PA 19038

HAROLDD FISHER UNIV OF RHODE ISLAND

CENTRAL COLLEGE
PHYSICAL SCIENCES NEC

DEPT. OF BIOCHEM. & BIOPHYSICS DEPT. MATH./COMPUTER SCIENCE

226 MORRILL HALL KINGSTON ,RI 02881 THOMAS E. IVERSON

PELLA , IA 50219

KURT FISHER DOWLING COLLEGE PHYSICS IDLE HOUR BLVD. OAKDALE ,NY 11769

BYRON JONES UNIV OF WISCONSIN-PLATTEVILLE ELECTRICAL ENGINEERING ELECTRICAL ENGINEERING DEPT.

PLATTEVILLE ,WI 53818

PATRICK J. FLEURY MATHEMATICS DEPT. OF MATHEMATICS PLATTSBURG ,NY 12901

EVERETT JONES PLATTSBURG STATE UNIVERSITY UNIV OF MARYLAND-COLLEGE PARK DEPT. OF AEROSPACE ENGR'S COLLEGE PARK ,MD 20742

HAL J. FORSEY SAN FRANCISCO STATE UNIV MATHEMATICS MATHEMATICS DEPARTMENT SAN FRANCISCO .CA 94132

EDWARD D. JORDAN CATHOLIC UNIVERSITY MECHANICAL ENGINEERING MECHANICAL ENGR'G DEPT. WASHINGTON ,DC 20046

ATTACHMENT F.

TEPPER L. HILL HOWARD UNIVERSITY MATHEMATICS DEPT. OF MATHEMATICS WASHINGTON DC 20059 GAYLE JURGIYK
ST. UNIV. OF NEW YORK-OSWEGO
PHYSIUS
PHYSICS DEPERTMENT
OSWEGO ,NY 13126

ROY F. GRATE MARY WASHINGTON COLLEGE CHEMISTRY 1301 COLLEGE AVENUE FREDERICKSBURG ,7A 22401 MANOHAR KAMAT UNIV OF TENNESSEE-CHATTANOOGA ENGINEERING NEC 313 NORRIS HALL VIRGINIA TECH BLACKSBURG ,VA 2406:

JOHN B. GRUBER SAN JOSE STATE UNIVERSITY PHYSICS 1 WASHINGTON SQUARE SAN JOSE ,CA 95192 OLAKUNLE KASSIM
HOWARD UNIVERSITY
MEDICAL SCIENCES
DEPT. OF MICROBIOLOGY
COLLEGE OF MEDICINE
WASHINGTON ,DC 20059

PAUL A. GUSE NORTH DAKOTA STATE UNIV MEDICAL SCIENCES COLLEGE OF PHARMACY FARGO ,ND 58105 YONG HAK KIM SADDLEBACK COLLEGE ASTRONOMY 28000 MARGUERITE PARKWAY MISSION VIEJO ,CA 92692

NARAYAN C. HALDER UNIV OF SOUTH FLORIDA PHYSICS PHYSICS DEPARTMENT TAMPA ,FL 33620 RAYMOND P. KIRSCH LASALLE UNIVERSITY COMPUTER SCIENCES 20TH & JLNEY AVENUE PHILADELPHIA ,PA 19141 ROBERT 3. HAMERLY

UNIVERSITY OF MORTH COLORADO UNIV OF SOUTHERN CALIFORNIA

PHYSICS

PHYSICS DEPARTMENT

GREELY ,CO 80639

FREDERICK KNIRK

PSYCHOLOGY NEC

WPH 801

LOS ANGELES ,CA 30080

PADMANABH HARIHAR UNIV OF LOWELL

PHYSICS

1 UNIVERSITY AVENUE

LOWELL ,MA 01854

ESSIE KNUCKLE HOWARD UNIVERSITY PSYCHOLOGY NEC

SCHOOL OF EDUCATION

DEPT. OF PSYCH./EDUC. STUDIES

WASHINGTON ,DC 20059

DAVID G. HARLOW LEHIGH UNIVERSITY

MECHANICAL ENGINEERING

MECHANICAL ENGINEERING BETHLEHEM ,PA 18015

GABRIEL KOJOIAN

UNIV OF WISCONSIN-EAU CLAIRE

ASTRONOMY

DEPT. OF PHYSICS/ASTR.

EAU CLAIPE ,WI 54701

ROBERT HARTFORD SHIPPENSBURG UNIVERSITY

PHYSICS

SHIPPENSBURG , PA 17257

PHYSICS DEPARTMENT

TIMOTHY LANCEY

CAL STATE UNIV-FULLERTON MECHANICAL ENGINEERING MECHANICAL ENGR'G DEPT.

FULLERTON ,CA 92634

IRVIN HEARD

LINCOLN UNIVERSITY

PHYSICS

PHYSICS DEPARTMENT

LINCOLN ,PA 19352

DONALD C. LARSON

DREXEL UNIV

PHYSICS

DEPT. PHYSICS/ATMOSPHERIC SC.

PHILADELPHIA ,PA 19104

DONN HINES ST. MARY'S JOLLEGE MATHEMATICS, COMP SCI NEC MATHEMATICS
ROX 1525 DEPT. OF MA BUA 1525 WINENA ,MN 55987

GERARD LAVARNWAY NORWICH UNIVERSITY DEPT. OF MATHEMATICS NORTHFIELD ,VT 05663

JAMES HOFFMASTER GONZAGA UNIVERSITY PHYSICS E. 502 BOONE STREET SPOKANE, WA 99258

BROTHER D. LAWLESS FORDHAM UNIV MEDICAL SCIENCES LINCOLN CENTER NEW YORK ,NY 10023

JOYCE HOGAN UNIV OF TULSA PSYCHOLOGY 600 S. COLLEGE AVENUE DEPT. OF MATHEMATICS TULSA ,OK 74104

STEVEN LEON SOUTHEASTERN MASS UNIV MATHEMATICS NO. DARTMOTH , MA 02747

ROBERT HOGAN UNIV OF TULSA PSYCHOLOGY DEPARTMENT OF PSYCHOLOGY TULSA ,OK 74104

LAWRENCE LEWANDOWSKI SYRACUSE UNIVERSITY PSYCHOLOGY DEPT. OF PSYCHOLOGY 472 HUNTINGTON HALL SYRACUSE ,NY 13210

EDWARD HOGANSON EDINBORO STATE COLL CHEMISTRY CHEM./PHYSICS DEPT. COOPER HALL EDINBORO , PA 16444

KENNETH W. LEWIS HAMPTON UNIVERSITY MATHEMATICS DEPT. OF MATHEMATICS HAMPTON, VA 23668

JACQUELINE LONG NORFOLK STATE UNIVERSITY MATHEMATICS, COMP SCI NEC 2401 CORPREW AVENUE NORFOLK ,VA 23504

STEPHEN PENNELL UNIV OF LOWELL MATHEMATICS DEPT. OF MATHEMATICS LOWELL ,MA 01854

RICHARD J. LYSIAK TEXAS CHRISTIAN UNIV PHYSICS DEPT. OF PHYSICS BOX 32915 FORT WORTH ,TX 76129

MARK F. PETERSON UNIV OF MIAMI-CORAL GABLES ALL OTHER DISCIPLINES P.O. BOX 249145 CORAL GABLES ,FL 33124

EMMETT MADDRY RANDOLPH-MACON COLLEGE PHYSICS DEPT. OF PHYSICS ASHLAND , VA 23005

ARNOLD POLAK UNIV OF CINCINNATI AERONAUTICAL ENGINEERING ML 70 CINCINNATI ,OH 45221

WOLODYMYR MADYCH UNIV OF CONNECTICUT MATHEMATICS DEPT. OF MATHEMATICS STORRS ,CT 06268

DANIEL POND FLORIDA INST OF TECH PSYCHOLOGY 150 W. UNIVERSITY BLVD. MELBOURNE ,FL 32901

JOE MARTIN EMBRY-RIDDLE AERONAUTICS UNIV UNIV OF NEW ORLEANS AERONAUTICAL ENGINEERING REGIONAL AIRPORT DAYTONA BEACH ,FL 32014

GARY A. RANSFORD PHYSICS DEPT. OF PHYSICS LAKEFRONT NEW ORLEANS .LA 70148

MARK MCCORD OHIO STATE UNIV-COLUMBUS CIVIL ENGINEERING HITCHCOCK 491C 2070 NEIL AVENUE COLUMBUS ,OH 43210

RONALD L. REESE WASHINGTON & LEE UNIVERSITY PHYSICS DEPT. OF PHYSICS/ENGR'G LEXINGTON ,VA 24450

RONALD MCKNIGHT PAINE COLLEGE BIOLOGICAL SCIENCES DIV. OF NATURAL SC./MATHEMATIC ORETECH BRANCH POST OFFICE AUGUSTA ,GA 30910

DANIEL REED OREGON INST OF TECHNOLOGY ELECTRICAL ENGINEERING KLAMATH FALLS ,OR 97601

RICHARD MESSNER UNIV OF NEW HAMPSHIRE ELECTRICAL ENGINEERING E.C.E. DEPARTMENT KINGSBURY HALL DURHAM ,NH 03824

HORACE REYNOLDS GALLAUDET PSYCHOLOGY DEPT. OF PSYCHOLOGY WASHINGTON , DC 20002

JOHN METZNER UNIV OF MISSOURI-ROLLA COMPUTER SCIENCES COMPUTER SCIENCE DEPT. ROLLA ,MO 65401

BURGESS RHODES VILLANOVA UNIVERSITY MATHEMATICS VILLANOVA ,PA 19085

NICHOLAS MISKOVSKY PENN STATE UNIV-UNIV PK PHYSICS 104 DAVEY LAB UNIVERSITY PARK ,PA 16802 MICHAEL RIGGINS COLORADO SCHOOL OF MINES ENGINEERING TECHNOLOGY DEPT. OF ENGINEERING 269 BROWN HALL GOLDEN , CO 30401

REGINALD MITCHINER VPI & SU-BLACKSBURG MECHANICAL ENGINEERING MECHANICAL ENGINEERING BLACKSBURG , VA 24061

G. WILLIAM ROLLOSSON MENLO COLLEGE LIFE SCIENCES NEC 1000 EL CAMINO REAL ATHERTON ,CA 94025

GORDON MOORE PENN STATE UNIV-OGONTZ CHEMISTRY 1600 WOODLAND ABINGTON ,PA 19001

EMILIO ROXIN UNIV OF RHODE ISLAND MATHEMATICS MATH. DEPT. KINGSTON ,RI 02881

RICHARD MORRISON UNIV OF NEW HAVEN PHYSICS PHYSICS DEPT. WEST HAVEN ,CT 06516

CRAIG RUSSELL UNIV OF PITTSBURGH-PITTSBURGH SOCIAL SCIENCE NEC PITTSBURGH ,PA 15260

KEVIN MURPHY COLORADO STATE UNIVERSITY PSYCHOLOGY DEPT. OF PSYCHOLOGY FORT COLLINS ,CO 80523

ROBERT SCHLESINGER SAN DIEGO STATE UNIV SOCIAL SCIENCE NEC SAN DIEGO ,CA 92182

STEVEN NARDONE SOUTHEASTERN MASS UNIV COMPUTER SCIENCES DEPT. OF COMPUTER/ELECT. ENGR 5100 ROCKHILL ROAD NORTH DARTMOTH , MA 02747

KENNETH SCHMITZ UNIV OF MISSOURI-KANSAS CITY CHEMISTRY KANSAS CITY ,MO 64110

ATTACHMENT F.

JAMES NICKEL
UNIV OF TEXAS-ODESSA
MATHEMATICS, JOMP SCI NEC
4901 E. UNIVERSITY
DDESSA ,TX 79762

SOLOMON SEARS
CLARK COLLEGE
BIOLOGICAL SCIENCES
240 JAMES P. BRAWLEY DR.
BOX 276
ATLANTA ,GA 30314

TATREE NONTASAK
TOUGALOO COLLEGE
SOCIAL ASPECTS
DEPT. OF SOCIOLOGY
TOUGALOO ,MS 39174

GERALD SEEBACH
TRANSYLVANIA UNIVERSITY
CHEMISTRY
300 N. BROADWAY
LEXINGTON ,KY 40508

ROBERT PANGBORN
PENN STATE UNIV-UNIV PK
ENGINEERING TECHNOLOGY
227 HAMMOND BUILDING
UNIVERSITY PARK, PA 16802

R. JOEL SENTER
UNIV OF CINCINNATI
PSYCHOLOGY
CINCINNATI, OH 45221

VINCENT PARKS
CATHOLIC UNIVERSITY
CIVIL ENGINEERING
DEPT. OF CIVIL ENGR'G
WASHINGTON , DC 20064

GEORGE SHEN
NORTHROP UNIVERSITY
CIVIL ENGINEERING
DIV. AERO./MECH./CIVIL ENGR'G
INGLEWOOD , CA 90306

CLAUDE PENCHINA
UNIV OF MASSACHUSETTS
PHYSICS
DEPT. OF PHYSICS/ASTRONOMY
HASBROUCK 405A
AMHERST ,MA 01003

ROBERT SIDMAN
UNIV OF SOUTHWEST LOUISIANA
MATHEMATICS
DEPT. OF MATHEMATICS
LAFAYETTE ,LA 70504

LAWRENCE SIGUR SOUTHERN UNIVERSITY MATHEMATICS 6400 PRESS AVENUE NEW DELEANS , LA 70126 SOM DEV TYAGI
DREXEL UNIV
PHYSICS
32ND & CHESTNUT STREETS
PHILADELPHIA ,PA 19104

ERNEST SIMON SOUTHERN UNIVERSITY PHYSICS DEPT. OF PHYSICS BATON ROUGE ,LA 70813 PAUL UKLEJA SOUTHEASTERN MASS UNIV PHYSICS NORTH DARTMOUTH ,MA 32747

RAM P. SINGHAL
WICHITA STATE UNIVERSITY
CHEMISTRY
CHEMISTRY DEPT.
CAMPUS BOX 51
WICHITA ,KS 67208

DAVID VENDERAH CHATHAM COLLEGE CHEMISTRY CHEMISTRY DEPARTMENT PITTSBURGH ,PA 15232

GILBERT SPEICH
ILLINOIS INST OF TECH
METALURGICAL ENGINEERING
IIT, IIT CENTER
CHICAGO ,IL 60616

BASIL VASSOS UNIV OF PUERTO RICO-RIO PIED CHEMISTRY DEPARTMENT OF CHEMISTRY R. PIEDRAS ,PR 00931

DOUGLAS SPEIGEL UNIV OF SOUTH DAKOTA PSYCHOLOGY VERMILLION ,SD 57069 CHASI VERMA
UNIV OF RHODE ISLAND
MATHEMATICS
214 TYLER HALL
KINGSTON RI 02881

ATTACHMENT F.

JACK STEIN PENN ST UNIV-KING OF PRUSSIA OREGON STATE UNIVERSITY ELECTRICAL ENGINEERING 650 S. HENDERSON ROAD KING OF PRUSSIA ,PA 19400 CORVALLIS ,OR 97331

ALLEN L. WASSERMAN PHYSICS DEPT. OF PHYSIJS

GEORGE STICKNEY UNIV OF MISSOURI-COLUMBIA MECHANICAL ENGINEERING COLUMBIA ,MO 65211

MARGARET WECHTER SOUTHEASTERN MASS UNIT CHEMISTRY N. DARTMOUNT ,MA 02747

KENNETH STUART ISSAQUAH HEALTH RESEARCH INST. JMI ENGRG & MGMT INST-FLINT LIFE SCIENCES NEC 1595 NW GILMAN BLVD. ISSAQUAH ,WA 98027

CHARLES WHITE MECHANICAL ENGINEERING 1700 WEST THIRD AVENUE FLINT ,MI 48502

MEENAKSHI SUNDARAM UNIV OF NEW HAVEN INDUSTRIAL ENGINEERING 300 ORANGE AVENUE WEST HAVEN ,CT 06516

JOHN A. WHITE JOHN A. AMERICAN UNIVERSITY PHYSICS WASHINGTON , DC 20016

WILLIAM SWIM TENNESSEE TECHNOLOGICAL UNIV MECHANICAL ENGINEERING BOX 5014 TTU COOKEVILLE .TN 68505

JERRY WILLIAMS UNIV OF FLORIDA ENGINEERING NEC DEPT. MAT. SCI. & ENGR'G GAINESVILLE ,FL 32611

ATTACHMENT F.

SCOTT TENTO UTAH STATE UNIVERSITY MATHEMATICS MATH DEPT. LOGAN ,UT 34322

RONALD WILLIAMS OHIO UNIVERSITY-ATHENS CHEMISTRY DEPT. OF CHEMISTRY ATHENS , JH 45701

MARIE D. THOMAS JOLLEGE OF MOUNT ST. VINCENT PSYCHOLOGY DEPT. OF PSYCHOLOGY

LOUISIANA TECH UNIVERSITY PHYSICS P.O. BOX 3169 T.S. RIVERDALE ,NY 10471 RUSTON ,LA 71272

NORMAN WITRIOL

CHIN CHEN TING UNIV OF HOUSTON PHYSICS DEPT. OF PHYSICS HOUSTON ,TX 77004

WILLIAM JO WOLTERS UNIV OF SOUTH CAROLINA ELECTRICAL ENGINEERING COLUMBIA ,SC 29208

EDMOND TOMASTIK UNIV OF CONNECTICUT-STORRS MATHEMATICS MATH DEPARTMENT U-09 STORRS ,CT 06286

JOHN WORLEY ST. NORBERT COLLEGE CHEMISTRY DEPERE ,WI 54115

CENGIZ TOPAKOGLU UNIV OF SOUTH ALABAMA MECHANICAL ENGINEERING DEPT. OF MECH. ENGR'G EGCB 212 MOBILE ,AL 26688

TUNG LIN WU COPPIN STATE COLLEGE ENVIRONMENTAL SCIENCES, NEC 2500 W. NORTH AVENUE BALTIMORE ,MD 21216

ATTACHMENT F.

GEORGE TREVINO MICHIGAN TECHNOLOGICAL UNIV MECHANICAL ENGINEERING ME-EM DEPARTMENT HOUGHTON ,MI 4993!

JOAN WYZKOSKI BRADLEY UNIVERSITY MATHEMATICS PEORIA ,IL 61625

DANIEL TROY PURDUE UNIV-HAMMOND MATHEMATICS 2233 171ST STREET HAMMOND , IN 46323

MARK C.K. YANG UNIV OF FLORIDA MATHEMATICS DEPT. OF STATISTICS GAINESVILLE ,FL 52611

CHUNG TSUI MECHANICAL ENGINEERING MECHANICAL ENGINEERING COLLEGE PARK ,MD 20742

DAE S. YOUNG UNIV OF MARYLAND-COLLEGE PARK MICHIGAN TECHNOLOGICAL UNIV ENGINEERING TECHNOLOGY MINING ENGINEERING DEPT. HOUGHTON ,MI 49931

ARNOLD TUBIS PURDUE UNIV-WEST LAFAYETTE PHYSICS WEST LAFAYETTE ,IN 47907

KUNO ZIMMERMANN UNIV OF MISSOURI ELECTRICAL ENGINEERING 600 W. MECHANIC INDEPENDENCE ,MO 64050

WAYNE TUCKER UNIV OF RHODE ISLAND OCEANOGRAPHIC ENGINEERING LIPPITT HALL KINGSTON ,RI 02881

AMERICAN SOCIETY FOR ENGINERING EDUCATION 1985 Summer Faculty Research Program States and Institutions of Applicants/Participants

Code*

State	Institution	Code
AK	UNIV OF ALASKA-FAIRBANKS	1
AL	ALABAMA A & M UNIVERSITY	1
AL	UNIV OF ALABAMA-HUNTSVILLE	1
AL	TUSKEGEE INSTITUTE	1
ΑL	UNIV OF ALABAMA-HUNTSVILLE	1
AL	AUBURN UNIVERSITY	3
ΑL	UNIV OF SOUTH ALABAMA	4
AL	UNIV OF SOUTH ALABAMA	4
AL	UNIV OF SOUTH ALABAMA	4
AR	UNIV OF CENTRAL ARKANSAS	1
AR	UNIV OF ARKANSAS-LITTLE ROCK	1
AR	UNIV OF ARKANSAS-LITTLE ROCK	1
AR	JOHN BROWN UNIVERSITY	1
AR	JOHN BROWN UNIVERSITY	1
AZ	UNIV OF ARIZONA	1
AZ	GLENDALE COMMUNITY COLL	1
AZ	CENTRAL ARIZONA COLLEGE	1
AZ	UNIV OF ARIZONA	1
AZ	ARIZONA STATE UNIVERSITY	1
AZ	ARIZONA STATE UNIVERSITY	4
CA	CAL STATE UNIV-FRESNO	1
CA	MESA COLLEGE	1
CA	PACIFIC UNION COLLEGE	1
CA	DIABLO VALL COLL-PLEASNT	1
CA	RIVERSIDE COLLEGE	1
CA	CALIFORNIA POLYTECH STATE UNIV	1
CA	SAN DIEGO STATE UNIV	1
CA	SAN DIEGO STATE UNIV	1

ATTACHMENT G.

Code*

State	Institution	Code
CA	CAL. ST. UNIVSAN BERNARDINO	1
JA	SAN DIEGO MESA COLLEGE	1
CA	JAL STATE UNIV-FULLERTON	1
CA	SAN DIEGO STATE UNIV	1
JA	LONG BEACH SITY COLLEGE	1
CA	AZUSA PACIFIC UNIVERSITY	1
JA	CAL STATE UNIV-FRESNO	3 3 3 3
JA	UNIV OF CALIFORNIA-IRVINE	3
CA	CAL STATE UNIV-FRESHO	3
CA	CAL STATE UNIV-NORTHRIDGE	
JA	HUMBOLDT STATE UNIVERSITY	4
CA	SAN FRANCISCO STATE UNIV	4
CA	SAN JOSE STATE UNIVERSITY	4
JA	SADDLEBACK COLLEGE	4
CA	UNIV OF SOUTHERN CALIFORNIA	4
CA	CAL STATE UNIV-FULLERTON	4
CA	MENLO COLLEGE	4
CA	SAN DIEGO STATE UNIV	4
CA	NORTHROP UNIVERSITY	4
CO	UNIV OF SOUTHERN COLORADO	1
CO	UNIV OF COLORADO-DENVER	1
CO	WESTERN STATE COLLEGE	1
CO	UNIVERSITY OF NORTH COLORADO	4
CO	COLORADO STATE UNIVERSITY	4
CO	COLORADO SCHOOL OF MINES	4
CT	NORWALK STATE TECH COLL	1
CT	CONNECTICUT COLLEGE	1
CT	BRIDGEPORT ENGINEERING INST	1
CT	MIDDLESEX COMMUNITY COLLEGE	1
CT	SOUTHERN CONNECTICUT UNIV.	4
CT	UNIV OF CONNECTICUT	4
CT	UNIV OF NEW HAVEN	4
CT	UNIV OF NEW HAVEN	4
CT	UNIV OF CONNECTICUT-STORRS	4
DC	HOWARD UNIVERSITY	1
DC	UNIV OF DIST OF COLUMBIA	1
DC	UNIV OF DIST OF COLUMBIA	1
DC	GEORGETOWN UNIV	1
DC	GOVT. OF ETHIOPA	1

State	Institution	Code
DC .	UNIV OF DIST OF COLUMBIA	1
DC	GEORGE WASHINGTON UNIV	1
DC	AMERICAN UNIVERSITY	1
DC	HOWARD UNIVERSITY	1
DC	HOWARD UNIVERSITY	1
DC	CATHOLIC UNIVERSITY	3
OC .	COLLEGE OF THE VIRGIN ISLANDS	3
DC	HOWARD UNIVERSITY	4
DC .	AMERICAN UNIVERSITY	4
DC	HOWARD UNIVERSITY	4
DC	GEORGE WASHINGTON UNIV	4
DC	AMERICAN UNIVERSITY	4
DC	HOWARD UNIVERSITY	4
DC	CATHOLIC UNIVERSITY	4
DC	HOWARD UNIVERSITY	4
DC	HOWARD UNIVERSITY	4
DC	CATHOLIC UNIVERSITY	4
DC	GALLAUDET	4
DC	AMERICAN UNIVERSITY	4
DE	DELAWARE STATE COLLEGE	1
DE	UNIV OF DELAWARE	3
FL	UNIV OF MIAMI-CORAL GABLES	í
FL	UNIV OF FLORIDA-GAINESVILLE	1
FL	FLORIDA INST OF TECH	1
FL	BETHUNE-COOKMAN COLLEGE	1
FL	EDWARD WATERS COLLGE	1
FL	INDIAN RIVER COMM. COLL.	1
FL	SEMINOLE COMMUNITY COLL	1
FL	FLORIDA INTERNATIONAL UNIV	1
FL	UNIV OF FLORIDA-GAINESVILLE	1
FL	UNIVERSITY OF SOUTH FLORIDA	1
FL	UNIVERSITY OF CENTRAL FLORIDA	1
FL	TALLAHASSEE COMMUNITY COLLEGE	1
FL	UNIV OF MIAMI-CORAL JABLES	
FL	UNIV OF WEST FLORIDA	3 3 4
FL	MIAMI UNIVERSITY	3
FL	FLORIDA INST OF TECH	4
FL	UNIV OF FLORIDA	4
FL	UNIV OF SOUTH FLORIDA	1
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ATTACHMENT G.

Code*

State	Institution	Code
32	EMBRY-RIDDLE AERONAUTICS UNIV	4
FL	UNIV OF MIAMI-CORAL GABLES	4
FL	FLORIDA INST OF SECH	4
FL	UNIV OF FLORIDA	4
FL	UNIV OF FLORIDA	4
3A	UNIV OF GEORGIA	1
3.4	FORT VALLEY STATE COLLEGE	•
GA	ARMSTRONG STATE COLLEGE	;
JA	COLUMBUS COLLEGE	:
JA	ATLANTA JUNIOR COLLEGE	1
JA	TIFT COLLEGE	1
GA	COLUMBUS COLLEGE	1
GA	GEORGIA TECH	3 3 4
3A	AUGUSTA COLLEGHE	3
JA	MERCER UNIVERSITY	1
GA	PAINE COLLEGE	4
GA	CLARK COLLEGE	4
HI	UNIV OF HAWAII	1
IA	BRIAR CLIFF COLLEGE	1
IA	CENTRAL COLLEGE	1
IA	IOWA STATE UNIVERSITY	1
ĮΑ	IOWA STATE UNIVERSITY	1
IA	IOWA STATE UNIVERSITY	1
IA	LORAS COLLEGE	1
IA	WESTMAR JOLLEGE	1
IA	UNIV OF IOWA	1
IA	CORNELL UNIVERSITY	1
ĮΑ	AWCI TC VIKU	4
ΙA	CENTRAL COLLEGE	4
ID	RICKS COLLEGE	1
IL	WESTERN ILLINOIS UNIV	1
IL	SO ILLINOIS UNIV-CARBONDALE	1
IL	EASTERN ILLINOIS UNIV	1
IL	SOUTHERN ILLINOIS COLLEGE	1
IL	UNIV OF ILLINOIS-URBANA	1
IL	UNIV OF ILLINOIS-URBANA	1
IL	UNIVERSITY OF ILLINOIS	1
IL	CDATIHO RG VINU	
IL	UNIV OF ILLINOIS-URBANA	3 3
		-

State	Institution	Code
:L	UNIV OF CHICAGO	4
IL	SOUTHERN ILLINOIS COLLEGE	4
ΙL	ILLINOIS INST OF TECH	4
IL	BRADLEY UNIVERSITY	4
IN	BALL STATE UNIVERSITY	1
IN	PURDUE UNIV-WEST LAFAYETTE	1
IN	ROSE-HULMAN INST OF TECH	1
IN	ROSE-HULMAN INST OF TECH	1
IN	VALPARAISO TECHNICAL INST	1
IN	BALL STATE UNIVERSITY	1
IN	BALL STATE UNIVERSITY	1
IN	INDIANA UNIVERSITY	1
IN	PURDUE UNIV-INDIANAPOLIS	3
IN	ROSE-HULMAN INST OF TECH	3 3 3
IN	PURDUE UNIV-WEST LAFAYETTE	
IN	ROSE-HULMAN INST OF TECH	4
IN	ST. JOSEPH'S COLLEGE	4
IN	PURDUE UNIV-INDIANAPOLIS	4
IN	PURDUE UNIV-HAMMOND	4
IN	PURDUE UNIV-WEST LAFAYETTE	4
KS	KANSAS STATE UNIV	1
KS	UNIVERSITY OF KANSAS	1
KS	WICHITA STATE UNIVERSITY	1
KS	KANSAS STATE UNIV-MANHATTAN	1
KS	WASHBURN UNIVERSITY	4
KS	KANSAS STATE UNIV-MANHATTAN	4
KS	WICHITA STATE UNIVERSITY	4
KY	KENTUCKY STATE UNIV-FRANKFORT	1
KY	KENTUCKY STATE UNIV-FRANKFORT	1
KY	UNIV OF LOUISVILLE	1
KΥ	UNIV OF KENTUCKY-LEXINGTON	1
ΚΥ	EASTERN KENTUCKY UNIV	3
ΚY	UNIV OF KENTUCKY-LEXINGTON	4
ΚY	TRANSYLVANIA UNIVERSITY	4
LA	MCNEESE STATE UNIVERSITY	1
LA	UNIV OF NEW ORLEANS	1
LA	SOUTHERN UNIVERSITY	1
LA	LOUISIANA ST UNIV-BATON ROUGE	1
LA	UNIV OF NEW ORLEANS	1

State	SOUTHEASTERN LOUISIANA UNIV LOUISIANA STATE UNIV SOUTHERN UNIVERSITY SOUTHERN UNIVERSITY SOUTHERN UNIVERSITY SOUTHERN UNIVERSITY UNIV OF NEW DRLEANS UNIV OF SOUTHWEST LOUISIANA SOUTHERN UNIVERSITY SOUTHERN UNIVERSITY LOUISIANA TECH UNIVERSITY NORTHEASTERN UNIVERSITY NORTHEASTERN UNIVERSITY NORTHEASTERN UNIVERSITY UNIV OF MASSACHUSETTS UNIV OF MASSACHUSETTS UNIV OF LOWELL SOUTHEASTERN MASS UNIV UNIV OF MASSACHUSETTS UNIV OF LOWELL SOUTHEASTERN MASS UNIV SO	Code
LA	SOUTHEASTERN LOUISIANA UNIV	•
LA	LOUISIANA STATE UNIV	<u>*</u>
LA	SOUTHERN UNIVERSITY	į.
LA	SOUTHERN UNIVERSITY	* * * * * * * * * * * * * * * * * * *
LA	SOUTHERN UNIVERSITY	
LA	UNIV OF NEW ORLEANS	4
LA	UNIV OF SOUTHWEST LOUISIANA	1
LA	SOUTHERN UNIVERSITY	4
LA	SOUTHERN UNIVERSITY	4
LA	LOUISIANA TECH UNIVERSITY	4
MΑ	NORTHEASTERN UNIVERSITY	•
MA	NORTHEASTERN UNIVERSITY	1
MA	NORTHEASTERN UNIVERSITY	1
MA	BOSTON COLLEGE	1
MA	UNIV OF MASSACHUSETTS	4
MA	UNIV OF LOWELL	4
MA	SOUTHEASTERN MASS UNIV	4
MA	SOUTHEASTERN MASS UNIV	4
MA	UNIV OF MASSACHUSETTS	4
MA	UNIV OF LOWELL	4
MA	SOUTHEASTERN MASS UNIV	4
MA	SOUTHEASTERN MASS UNIV	4
MD	BOWIE STATE COLLEGE	1
MD	GOUCHER COLLEGE	1
MD	UNIV OF MARYLAND-COLLEGE PARK	1
MD	BOWIE STATE COLLEGE	1
MD	U.S. NAVAL ACADEMY	1
MD	COLUMBIA UNION COLLEGE	1
MD	MORGAN STATE UNIVERSITY	1
MID	ANNE ARUNDEL COMMUNITY COLLEGE	1
MD	JOHNS HOPKINS UNIV.)
MD	GOUCHER COLLEGE	3 3
MD	MORGAN STATE UNIVERSITY	
MD)	ANNE ARUNDEL COMMUNITY COLLEGE	3
MD	JOHNS HOPKINS UNIV.	4
MD	UNIV OF MARYLAND-COLLEGE PARK	4
MD	UNIV OF MARYLAND-COLLEGE PARK	4
MD.	COPPIN STATE COLLEGE	4
MI	MICHIGAN STATE UNIVERSITY	1

State	Institution	Code
MI	CALVIN COLLEGE	1
MI	MID-MICHIGAN COMMUNITY COLLEGE	1
MI	CENTRAL MICHIGAN UNIVERSITY	1
MI	MICHIGAN TECHNOLOGICAL UNIV	1
IM	UNIV OF MICHIGAN-ANN ARBOR	1
IK	GMI ENGRG & MGMT INST-FLINT	1
MI	UNIV OF MICHIGAN-ANN ARBOR	1
MI	MICHIGAN TECHNOLOGICAL UNIV	3
MI	MICHIGAN TECHNOLOGICAL UNIV	4
MI	GMI ENGRG & MGMT INST-FLINT	4
MI	MICHIGAN TECHNOLOGICAL UNIV	4
MN	ST. MARY'S COLLEGE	4
MO	PARK COLLEGE	1
MO	UNIV OF MISSOURI-ROLLA	1
MO	UNIV OF MISSOURI-KANSAS CITY	1
MO	UNIV OF MISSOURI-ST LOUIS	1
MO	UNIV OF MISSOURI-ROLLA	1
MO	TARKIO COLLEGE	1
MO	UNIV OF MISSOURI-ROLLA	1
MO	SOUTHWEST BAPTIST UNIVERSITY	1
MO	MINERAL AREA COLLEGE	1
MO	UNIV OF MISSOURI	4
MO	UNIV OF MISSOURI-ROLLA	4
MO	UNIV OF MISSOURI-KANSAS CITY	4
MO	UNIV OF MISSOURI-COLUMBIA	4
MO	UNIV OF MISSOURI	4
MS	SOUTHERN MISSISSIPPI, UNIV OF	1
MS	RUST COLLEGE	1
MS	UNIV OF MISSISSIPPI	1
MS	UNIV OF SOUTHERN MISSISSIPPI	1
MS	JACKSON COMMUNITY COLLEGE	1
MS	RUST COLLEGE	1
MS	MISSISSIPPI STATE UNIV	3
MS	TOUGALOO COLLEGE	4
MT	MONTANA STATE UNIVERSITY	1
NC	UNIV OF NO CAROLINA-CHARLOTTE	1
NC	NORTH CARCLINA CENTRAL UNIV.	1
NC	NORTH CAROLINA CENTRAL UNIV.	1
ИC	UNIV OF NO CAROLINA-CHAPEL HL	1

State	Institution	Code
ИC	NORTH CAROLINA SENTRAL UNIV. NORTH SAROLINA WESLEYAH COLL ELIZABETH CITY STATE UNIVER ST. AUGUSTINE'S COLLEGE NORTH DAKOTA STATE UNIV NORTH DAKOTA STATE UNIV WAYNE STATE UNIVERSITY WEBRASKA WESLEYAH UNIV. KEARNEY STATE COLLEGE UNIVERSITY OF NEBRASKA PLYMOUTH STATE COLLEGE UNIV OF NEW HAMPSHIRE UNIV OF NEW HAMPSHIRE STEVENS INST OF TECH RUTGERS UNIVERSITY MIDDLESEX COUNTY COLLEGE DREW UNIVERSITY MONMOUTH COLLEGE STEVENS INST OF TECH RUTGERS UNIVERSITY NEW JERSEY INST OF TECH STEVENS INST OF TECH KEAN COLL OF NEW JERSEY STEVENS INST OF TECH RUTGERS UNIVERSITY RUTGERS UNIVERSITY RUTGERS UNIVERSITY UNIV OF NEW MEXICO QUEENSBOROUGH COMM COLL PRATT INSTITUTE CITY COLL OF NEW YORK S.U.N.Y. GENESO MANHATTANVILLE COLLEGE QUEENSBOROUGH COMM COLL COLLEGE OF STATEN ISLAND UTICA COLLEGE ST. LAWRENCE UNIV. WESTCHESTER COMM COLL UTICA COLLEGE	1
NC	NORTH CAROLINA WESLEYAN COLL	1
NC	ELIZABETH CITY STATE UNIVER	1
NC	ST. AUGUSTINE'S COLLEGE	3
CK	NORTH DAKOTA STATE UNIV	1
ИD	NORTH DAKOTA STATE UNIV	4
NE	WAYNE STATE UNIVERSITY	1
NE	NEBRASKA WESLEYAN UNIV.	1
NE	KEARNEY STATE COLLEGE	1
ΝΞ	UNIVERSITY OF NEBRASKA	1
HК	PLYMOUTH STATE COLLEGE	1
NH	UNIV OF NEW HAMPSHIRE	1
NH	UNIV OF NEW HAMPSHIRE	4
ŊJ	STEVENS INST OF PECH	1
NJ	RUTGERS UNIVERSITY	1
NJ	MIDDLESEX COUNTY COLLEGE	1
ŊJ	DREW UNIVERSITY	1
NJ	MONMOUTH COLLEGE	1
NJ	STEVENS INST OF TECH	1
NJ	RUTGERS UNIVERSITY	1
ИJ	NEW JERSEY INST OF TECH	1
NJ	STEVENS INST OF TECH	1
NJ	KEAN COLL OF NEW JERSEY	1
NJ	STEVENS INST OF TECH	3 3
NЈ	STEVENS INST OF TECH	3
ŊJ	RUTGERS UNIVERSITY	3
NJ	RUTGERS UNIVERSITY	4
NM	UNIV OF NEW MEXICO	4
ИX	QUEENSBOROUGH COMM COLL	1
NY	PRATT INSTITUTE	1
NY	CITY COLL OF NEW YORK	1
NY	S.U.N.Y. GENESEO	1
NY	MANHATTANVILLE COLLEGE	1
71.X	QUEENSBOROUGH COMM COLL	1
NΥ	COLLEGE OF STATEN ISLAND	1
NY	UTICA COLLEGE	1
NY	ST. LAWRENCE UNIV.	1
NY	WESTCHESTER COMM COLL	1
NY	UTICA COLLEGE	1

ATTACHMENT G.

Code*

State	Institution	Code
ΝΥ	ROSWELL PARK GRADUATE SCHOOL	1
MA.	ALBANY COLLEGE OF PHARMACY	1
NΥ	CITY UNIV OF NEW YORK-NEW YORK	1
NY	MANHATTAN COMMUNITY COLLEGE	1
NY	STATE UNIV. COLLEGE-POTSDAM	1
ЛХ	ROCHESTER INST OF TECHNOLOGY	1
NY	FORDHAM UNIV	1
NY	CLARKSON UNIVERSITY	1
NY	BRONX COMMUNITY COLLEGE-BRONX	3
УYY	CLARKSON UNIVERSITY	3
NY	STATE UNIV OF NEW YORK	3 3
NY	QUEENSBOROUGH COMM COLL	3
NY	STATE UNIV OF NEW YORK	3
NY	MANHATTAN COLLEGE-RIVERDALE	4
NY	COLUMBIA COLLEGE	4
	STATE UNIV OF NY-BINGHAMTON	4
ИY	MANHATTAN COLLEGE-RIVERDALE	4
ŊY	DOWLING COLLEGE	4
NY	PLATTSBURG STATE UNIVERSITY	4
МY	ST. UNIV. OF NEW YORK-OSWEGO	4
NY	FORDHAM UNIV	4
NY	SYRACUSE UNIVERSITY	4
NY	COLLEGE OF MOUNT ST. VINCENT	4
OH	UNIV OF CINCINNATI	1
OH	CLEVELAND STATE UNIVERSITY	1
	KENYON COLLEGE	1
OH	OHIO STATE UNIV-COLUMBUS	1
OH	CAPITAL UNIVERSITY	1
OH	University of Dayton	3
OH	CEDARVILLE COLLEGE	3
OH	OHIO STATE UNIV-COLUMBUS	4
OH	OHIO STATE UNIV-COLUMBUS	4
OH	UNIV OF CINCINNATI	4
OH	UNIV OF SINCINNATI	4
ОН	OHIO UNIVERSITY-ATHENS	4
OK	AMOHALING TO VIKU	1
OK	UNIV OF OKLAHOMA	1
OK	UNIV OF OKLAHOMA	1
OK	OKLAHOMA STATE UNIVERSITY	1

State	Institution	Code
OK	CENTRAL STATE UNIVERSITY	1
OK	UNIV OF OKLAHOMA	3
ΟK	UNIV OF OKLAHOMA	3
OK	UNIV OF OKLAHOMA	3
OK	UNIV OF OKLAHOMA	3 3 3 3
OK	UNIV OF TULSA	4
OK	UNIV OF TULSA	4
QR	PORTLAND COMMUNITY COLL	1
OR	OREGON INST OF TECHNOLOGY	4
OR	OREGON STATE UNIVERSITY	4
PA	LEHIGH UNIVERSITY	t
PA	CARNEGIE-MELLON UNIVERSITY	1
PA	PENN STATE UNIV-UNIV PK	1
PA	PHILA COLL-TEXTILES/SCI	t
PA	LEBANON VALLEY COLLEGE	1
PA	SAINT FRANCIS COLLEGE	Ī
PA	PHILADELPHIA COLL-PHARM & SCI.	1
PA	CARNEGIE-MELLON UNIVERSITY	1
PA	PENN STATE UNIV-UNIV PK	1
PA	BEAVER COLLEGE	1
PA	PENN STATE UNIV-DUBOIS	t
PA	ST. NORBERT COLLEGE	1
PA	WIDENER UNIVERSITY	1
PA	VILLANOVA UNIVERSITY	1
PA	INDIANA UNIV OF PENNSYLVANIA	t
PA	WIDENER UNIVERSITY	1
PA	PHILA COLL-TEXTILES/SCI	1
PA	PHILA COLL-TEXTILES/SCI	3
PA	PENN STATE UNIV-OGONTZ CAMPUS	3
PA	DREXEL UNIV	3
PA	PENNSYLVANIA STATE UNIVERSITY	3
PA	DREXEL UNIV	3
PA	UNIV OF PENNSYLVANIA	3
PA	PENNSYLVANIA STATE UNIVERSITY	3 3 3 3 3 3 3 3
PA	PENNSYLVANIA STATE UNIVERSITY	3
PA	PHILA COLL-TEXTILES/SCI	
PA	TEMPLE UNIVERSITY	4
PA	DREXEL UNIV	4
PA	LEHIGH UNIVERSITY	4

State	Institution	Code
PA	SHIPPENSBURG UNIVERSITY	4
PA	LINCOLN UNIVERSITY	4
PA	EDINBORO STATE COLL	4
PA	BEAVER COLLEGE	4
PA	LASALLE UNIVERSITY	4
PA	DREXEL UNIV	4
PA	PENN STATE UNIV-UNIV PK	4
PA	PENN STATE UNIV-OGONTZ	4
PA	PENN STATE UNIV-UNIV PK	4
PA	VILLANOVA UNIVERSITY	4
PA	UNIV OF PITTSBURGH-PITTSBURGH	4
PA	PENN ST UNIV-KING OF PRUSSIA	4
PA	DREXEL UNIV	4
PA	CHATHAM COLLEGE	4
PR	UNIV OF PUERTO RICO-MAYAGUEZ	1
PR	UNIV OF PUERTO RICO-MAYAGUEZ	3
PR	UNIV OF PUERTO RICO-MAYAGUEZ	4
PR	UNIV OF PUERTO RICO-RIO PIED	4
RI	UNIV OF RHODE ISLAND	4
RI	UNIV OF RHODE ISLAND	4
RI	UNIV OF RHODE ISLAND	4
RI	UNIV OF RHODE ISLAND	4
SC	CLAFLIN COLLEGE	1
SC	MIDLANDS TECHNICAL COLLEGE	1
SC	CLEMSON UNIVERSITY	1
SC	THE CITADEL	1
SC	SOUTH CAROLINA STATE COLL	1
SC	UNIV OF SOUTH CAROLINA	3 3 3 4
SC	FURMAN UNIVERSITY	3
SC	CLEMSON UNIVERSITY	3
SC	UNIV OF SOUTH CAROLINA	3
SC	CLEMSON UNIVERSITY	
SC	WINTHROP COLLEGE	4
SC	UNIV OF SOUTH CAROLINA	4
SD	SOUTH DAKOTA STATE UNIV	1
SD	SO DAK SCH OF MINES/TECH	1
SD	UNIV OF SOUTH DAKOTA	4
TN	LANE COLLEGE	1
TN	UNIVERSITY OF TENNESSEE-MEMPHI	1

ATTACHMENT G.

Code*

State	Institution	Code
TN	TEXAS A&I UNIV-KINGSVILLE	1
2N	TENNESSEE STATE UNIV	1
TN	TENNESSEE TECHNOLOGICAL UNIV	4
TX	LAMAR UNIVERSITY	1
TX	TEXAS A&M UNIV-COLLEGE STA	1
TX	WAYLAND BAPTIST UNIVERSITY	1
TX	UNIV OF TEXAS-AUSTIN	1
TX	TEXAS A & M UNIVERSITY	1
TX	UNIV OF TEXAS-EL PASO	1
TX	NORTH TEXAS STATE UNIV	1
ΤX	DEL MAR COLLEGE	1
TX	TEXAS WOMAN'S UNIVERSITY	1
TX	UNIV OF TEXAS-EL PASO	1
TX	TEXAS A&M UNIV-COLLEGE STA	1
ΤX	SOUTHWEST TEXAS STATE UNIV	3
ΤX	TEXAS A & M UNIVERSITY	3
TX	UNIV OF TEXAS	3
ΤX	TEXAS CHRISTIAN UNIV	3 3 3 3 4
ΤX	TEXAS TECH UNIVERSITY	4
тX	TEXAS CHRISTIAN UNIV	4
тX	UNIV OF TEXAS-ODESSA	4
TX	UNIV OF HOUSTON	4
TU	UTAH STATE UNIVERSITY	4
V A	NORFOLK STATE UNIVERSITY	†
VA	NORFOLK STATE UNIVERSITY	1
7A	VPI & SU-BLACKSBURG	1
VA	VIRGINIA COMMONWEALTH UNIV	1
VA	GEORGE MASON UNIVERSITY	1
VA	VPI & SU-BLACKSBURG	1
VA	VPI & SU-DULLES	1
VA	VPI & SU-BLACKSBURG	1
VA	NORFOLK STATE UNIVERSITY	1
V A	VPI & SU-BLACKSBURG	1
V A	Hampton-Sydney College	3
V A	HAMPTON INSTITUTE	4
٧A	VPI & SU-BLACKSBURG	4
VA	MARY WASHINGTON COLLEGE	4
VA	UNIV OF TENNESSEE-CHATTANOOGA	4
V A	HAMPTON UNIVERSITY	4
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ATTACHMENT G.

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State	Institution	Code
V A	NORFOLK STATE UNIVERSITY	4
٧A	RANDOLPH-MACON COLLEGE	4
٧A	VPI & SU-BLACKSBURG	4
VA	WASHINGTON & LEE UNIVERSITY	4
ΛŢ	NORWICH UNIVERSITY	4
WA	WASHINGTON STATE UNIV	1
WA	WESTERN WASHINGTON UNIV	1
WA	WASHINGTON STATE UNIV	1
WA	EASTERN WASHINGTON UNIV	3
WA	GONZAGA UNIVERSITY	4
WA	ISSAQUAH HEALTH RESEARCH INST.	4
WI	UNIV OF WISCONSIN-EAU CLAIRE	1
WI	UNIV OF WISCONSIN-EAU CLAIRE	1
WI	MILWAUKEE SCH OF ENGRG	1
WI	MARQUETTE UNIVERSITY	1
IW	UNIV OF WISCONSIN-PARKSIDE	4
WI	UNIV OF WISCONSIN-PLATTEVILLE	4
WI	UNIV OF WISCONSIN-EAU CLAIRE	4
WI	ST. NORBERT COLLEGE	4
₩V	SALEM UNIVERSITY	1
₩V	WEST VIRGINIA STATE COLLEGE	1
WV	BLUEFIELD STATE COLLEGE	1
wv	WEST VIRGINIA UNIVERSITY	1
WV	MARSHALL UNIVERSITY	3
WY	UNIV OF WYOMING	1

1985 Navy Summer Faculty Research Program

Program Analysis: Distribution of Applicants and Participants by Navv ৰ&ট Centers, Academic Rank, Age, and Highest Degree

A Distribution of Applicants and Participants among Navy R&D Centers

APPLICANTS			p	PARTICIPANTS			
		As % of		As % of	Part.As 3		
R&D Center	Number	Total Appl.	Number	Total Part.	of Appl		
NADC	36	7.5%	14	8.8%	38.9%		
NAMEL	17	3.5%	7	4.4%	41.2%		
NCSC	14	3.0%	4	2.5%	28.6%		
NMR!	42	8.8%	5	3.2%	11.5%		
NORDA	20	4.2%	3	1.9%	15.0%		
NOSC	36	7.5%	11	6.9%	30.6%		
NPRDC	59	12.3%	12	7.6%	20.3%		
NRL	114	23.8%	43	27.0%	37.7%		
NSRDC	37	7.8%	13	8.2%	35.1%		
NSWC	28	5.9%	1.1	6.9%	39.3%		
NUSC	32	6.6%	22	13.8%	68.8%		
NWC	33	6.9%	7	4.4%	21.2%		
NTEC	3	0.07%	3	1.9%	100.0%		
NBL	1	0.03%	1	0.5%	100.0%		
NSMRL	10	2.1%	3	1.9%	30.0%		
			_				
Total	482	100.0%	159	100.0%	33.0%		

B. Distribution by Academic Rank

	APPL!	CANTS		PARTICIPAN	NTS
	Number	As % of Total Appl.	Number	As % of Total Part.	Part As % of Appl.
Professor	129	26.8%	49	30.8%	38.0%
Associate and	f 152	31.5%	55	34.6%	36.2%
Assistant Pro	f. 149	30.9%	44	27.7%	29.5%
Other	52	10.8%	11	6.9%	21.1%

C. Distribution by Age

	APPLICANTS	PARTICIPANTS
Average	41.96	42.1
Median	51.45	\$1.5
Youngest	25	25
Oldest	78	78

D. Distribution by Hignest Degrees

	APF	PLICANTS		PARTICIPA	NTS
	Number	As % of Total Appl.	Number	As % of Total Part.	Part. as % of Appl.
Ph.D	417	86.5%	144	90.5%	34.5%
MS	60	12.5%	15	9.5%	25.0%
BS	4	0.8%	0	0.0%	0.0%
Other	1	0.2%	0	0.0%	0.0%
Total	482	100.0%	159	100.0%	33.0%

APERICAN SOCIETY FOR ENGINEERING EDUCATION 1985 NAVY SUMMER FACULTY RESEARCH PROGRAM DISTRIBUTION BY DISCIPLINES OF APPLICANTS / PARTICIFANTS

APP/PAR	DISCIPLINES PHYSICAL SCI	NADC	NAMRL	NIMRI NOSC		IORD A	NORDA NOSC NPRDC		rk r	NSMRL	VSMRL MSRDC	NSVC	MUSC	M.V.C	162	итес
5	ASTRONOP-IY	0/0	0/0	0/0	0/0	0/0	0/0	0/0	171	0/0	0/0	0/0	0/0	0/0	0/0	0/0
65/17	CHEI-11STRY	1/4	0/0	<u> </u>	0/0	3/0	4/0	0/0	25/10	0/0	3/1	3/1	2/1	10/2	0/0	0/0
60/31	PHYSICS	1/5	0/0	3/)	9/1	2/1	8/3	3/0	32/11	0/0	2/1	7/3	8/3	7/3	0/0	0/0
17/4	PHYSICAL SCIMEC	¥	1/0	1,20	Ξ	0/0	0/0	9	2/0	Ξ	0/0	2/0	Ξ	0/0	0/0	0/0
	MATH/COMP SCI															
62/26	MATH	5/5	9/1	2	9	1/2	4/3	5/0	12/6	0/0	9/3	3/1	11/10	3/0	0/0	0/0
9/3	COMP SCI	2	0/0	0/0	0/0	0/0	2/0	0/0	3/2	0/0	0/0	2	2/1	0/0	0/0	0/0
6/2	NATH/COMP SCI NEC	2/1	0/0	0/0	0/0	2/9	0/0	2/1	0/0	0/0	1,0	0/0	0/0	0/0	0/0	0/0
	ENVIRON SCI															
2/0	GEOLOGICAL SCI	1,0	0/0	0/0	%	2	0/0	0/0	0/0	0/0	0/0	0/0	0/0	3/0	0/0	0/0
<u> </u>	OCE ANDGR APHY	0/0	0/0	0/0	5	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
0/1	ATI-10SPHERIC SCI	0/0	0/0	0/0	0/0	2	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
	ENGWEERING															
4/2	AERO ENG	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	2/1	2	0/1	0/0	0/0	0/0
0/1	AGRI ENG	0/0	0/0	2	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
13/1	CHEM ENG	0/0	0/0	2/0	20	2	1,0	0/0	4/0	0/0	2/0	0/1	9/0	0/1	0/0	0/0
¢/2	CIVIL ENG	Ξ	0/0	0/0	0/0	0/0	0/0	3/1	1/0	0/0	0/0	0/0	9	0/0	0/0	0/0
31/12	ELECT ENG	4/5	2/1	1/0	4/1	0/1	1/2	0/0	6/2	0/0	2/1	3/5	Ξ	0/0	0/0	0/0
8/2	KIDUS I ENG	0/0	0/0	0/0	0/0	0/0	0/0	0/4	0/0	0/0	3/1	0/0	Ξ	0/0	0/0	0/0
42/13	PIECH ENG	2/0	=	0/0	2	9/1	2/1	2	14/3	0/0	6/3	3/1	£/5	5/5	0/0	0/0
1/4	PIET ALUR ENG	2	0/0	0/0	=	0/0	0/0	0/0	=	0/0	2/1	Ξ	0/0	0/1	9/0	0/0
3/2	NUCLE AR ENG	0/0	0/0	0/0	0/0	0/0	0/0	2	0/0	0/0	0/0	Ξ	Ξ	0/0	0/0	0/0
F/8	ENG TECH	0/0	0/0	0/0	0/0	0/0	2/0	0/0	3/3	0/0	0/0	9/1	<u> </u>	0/1	0/0	0/0
5/5	ENG REC	97	0/0	0/0	9	0/0	0/0	2/0	4/2	0/0	7	ũ/ũ	0/0	0/0	0/0	0/0
	LIFE SCI															
18/3	BIOL SCI	0/0	2/0	9/2	9/0	2	Ξ	1/4	<u> </u>	0/0	9/-	0/0	0/0	9/	0/0	0/0
8/4		0/0	3/2	4/2	0 0 0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	9/1	0/0	0/0	0/0
17/4	LIFE SCINEC	0/0	3/1	1/1	0/0	9/1	0/0	2/0	0/0	0/0	1/0	0/0	0/0	0/1	<u> </u>	-
33/13	PSYCHOLOGY	0/0	3/1	2	0/0	0/0	2	9/61	<u> </u>	2/9	0/0	0/0	0/0	0/0	0/0	2/2
27/5	ALL OTHER DISCIPLINES	2	Ξ	3/0	0/0	2/0	2/0	12/3	1/0	0/0	0/0	2/0	0/0	0/0	0/0	0/0
482/159	TÜTALS	35/14	1771	42/5 12/4	12/4	22/3	37/11	59/12	37/11 59/12 113/43	1/3	35/13	29/11	\$7/12	33/7	51	3/3

AMERICAN SOCIETY FOR ENGINEERING EDUCAT

Navy/ASEE Summer Faculty Research Programs

Evaluation Questionnaire

(Faculty participants are asked to respond to the following questions)
Name:
Home institution:
Name of Research Colleague
Brief Descriptive Title of Research Topic:
SUMMARY OF RESPONSES FROM 142 OF 159
PARTICIPANTS IN 1985 NAVY SUMMER FACULTY RESEARCH PROGRAM
A. Program Objectives
1. Do you feel that you were engaged effectively in research of importance to the mission of the laboratory and the Navy?
Very much so 119 Somewhat 23 Scarcely at all 0
2. As a result of your experience how likely are you to use it as a basis for continuing research of interest to the Navy at your institution under its or other sponsorship?
Very likely 91 Likely 37 Not likely 14
What is the level of your anticipation of maintaining relations with the professional peers with whom you collaborated in the laboratory this summer
Eager, will maintain communication 129 Willing, will respond 13 Indifferent, not particularly interested0
B. Personal Professional Development
 To what extent do you think your research interests and capabilities have been affected by this summer's experience? (You may check more than one.)
Reinvigorated 76 Redirected 16 Advanced 99 Just maintained 1 Unaffected 3

2.	How strongly would you recommend this program to your faculty colleagues as a favorable means of advancing their personal professional development as researchers and teachers?
	With enthusiasm 104
	Positively 38
	Without enthusiasm 0 Not at all 2
3.	. How will this experience affect your teaching in ways that will be valuable to your students? (You may check more than one.)
	By integrating new information into courses 111
	By starting new courses 25
	By sharing research experience 107
	By revealing opportunities for future employment in government
	By deepening your own grasp and enthusiasm 80
	Will affect my teaching little, if at all 3
4.	. Do you have reason to believe that those in your institution who make decisions on promotion and tenure will give you credit for selection and participation in this highly competitive national program?
	Yes 96 No 44
c 1.	dministration •
1.	. How did you learn about the program? (Please check appropriate response.)
	69 Received announcement in mail.
	14 Read about it in a professional publication.
	41 Heard about it from colleague.
	34 Other (Explain.) Poster, Department Mail, Center Employees
2	. Did you also apply to other summer faculty programs?
	51_NASA
	21_Air Force
	20 Army

<u>28</u>_10

	3.	Did you r Please in	receive an of dicate from	fer of appointm which. <u>DOE -2,</u>	ent from one MASA-11, AF	e or more of the above? -6, Army-2, Other -3
	4.			u become famili research progra		laboratory people and their you worked?
		Mix	ed with and	learned of the	research of	many.
						96 a few.
						3none.
	5.	Would you mind that	be willing the stipend	to return next is likely to b	summer to co e \$700 per v	ontinue research keeping in week?
		Yes	127		No <u>15</u>	
	6.	Did you r research	eceive any i proposals to	nformal or form continue your	al instruct research at	ions about submission of your home institution?
		Yes	66		No	
	7.	Did your	assignment r	equire a securi	ty clearance	e?
		Yes	70		No _71	
		If "yes",	did you act	ually receive a	security c	learance?
		Yes	63		No9	
		Did this the summe	requirement r? If yes,	pose any obstac please explain.	le to achie	ving your research goals for
		Yes	9		No <u>85</u>	
		Lack of se	curity clear	ance prohibited	publication	n of some research articles,
		difficulty	with librar	y access.		
٥.	St	i pend				
	P1 e	ease indica is questio	te your annu n is to dete	al stipend at y rmine an equita	our home in: ble stipend	stitution. The purpose of for next year's program.
		\$	/per			
Ε.	AS	EE Members	hip Informat	ion		
	Wo	uld you li	ke to receive	e information r	e. membersn	ip in ASEE?
		Ye	s		No	
					,	

PLEASE USE THIS PAGE FOR YOUR COMMENTS TO ANY QUESTION.

- No channel for follow-up or dispersion of research funds is established.
- Stipend too low- would be adequate if per grem were baid
- Rewarding professional experience
- Better means of obtaining living facilities should be implemented
- Program well organized- time spent efficiently
- Laboratory staff attitude cooperative and friendly
- Hope to continue work that has begun under ASEE program
- Mileage rate of .10 per mile inadequate- suggest .20 per mile
- Navy Administrators provided no encouragement for research proposals
- Project is of limited scope- not too much theoretical work is required
- Appears to be so much bureaucratic red tape- disappointing
- More information needed on the names, institutions, projects of other summer facul
- Limited access to computer facilities
- More instruction needed for application for security clearance
- Best program that exists for educators
- Navy scientists supportive- should be commended
- Program conducted with efficiency and professionalism
- Would like to observe and mix with other research programs
- Allowance for family travel would be useful
- Those who make decisions on promotion have no respect for program
- ASEE staff very helpful
- Contact with Federal Agencies very useful
- Open ended starting dates terrific help.
- Navy staff not ready for me
- More planned social activities with other fellows
- Stipend should be leveled according to academic salary level
- Program fantastic

1985 NAVY SUMMER FACULTY FELLOWSHIP PROGRAM 141 RESPONDANTS TO EVALUATION QUESTIONNAIRE

141 RESPOND	ANTS TO EVALUAT			
NINE MONTHS SALARY	*	NINE MONTHS SALARY	*	
\$12,750.00	1	\$36,000.00	2	
\$15,750.00	2	\$36,400.00	2	
\$16,125.00	1	\$36,750.00	1	
\$17,250.00	2	\$37,000.00	1	
\$17,550.00	1	\$37,500.00	4	
\$18,000.00	2	\$37,700.00	1	
\$18,374.00	1	\$38,000.00	3	
\$18,750.00	1	\$38,286.00	1	
\$19,500.00	2	\$38,500.00	1	
\$20,000.00	2	\$39,000.00	2	
\$21,600.00	ī	\$40,000.00	2	
\$21,750.00	i		1	
\$22,000.00	1	\$41,000.00 \$41,250.00	1	
	1	\$41,250.00 \$41,500.00		
\$22,124.00		\$41,500.00 \$42,000.00	1 7	
\$22,500.00	2	\$42,000.00	3	
\$23,250.00	3	\$42,543.00	1	
\$23,500.00	2	\$44,000.00	3	
\$24,000.00	4	\$44,550.00	1	
\$24,300.00	1	\$45,000.00	2	
\$25 ,200.00	2	\$47,700.00	1	
\$25,500.00	3	\$48,150.00	1	
\$26,000.00	1	\$53,000.00	3	
\$2 6,2 5 0.00	3	\$5 4 <i>,</i> 9 0 0.00	1	
\$26,500.00	2	\$60,000.00	1	
\$27,000.00	3			
\$27,900.00	1			
\$28,000.00	1			
\$28,350.00	2		141	
\$28,500.00	1			
\$28,800.00	4	AVERAGE 9 MONTH SALARY		\$31,509 38
\$29,000.00	1	MEDIAN 9 MONTH SALARY		\$30,600.00
\$29,700.00	4			400,000.00
\$30,000.00	7			
\$30,375.00	4			
\$30 ,600.00	2			
\$31,000.00	4			
\$31,500.00	3			
\$31,650.00	1	•		
	4			
\$32,000.00 \$32,600.00				
\$32,600.00 \$37,000.00	1			
\$33,000.00	1			
\$33,120.00 \$37,500.00	1			
\$33,500.00	1			
\$33,800.00	1			
\$34,000.00	2			
\$34,200.00	2			
\$35,000.00				
	3			
\$35,250.00	2			
\$35,250.00 \$35,400.00	2 2			
\$35,250.00	2			



American Society for Engineering Education suite 200 eleven dupont circle, washington, d.c. 20036

(202) 293-7080

Summer Faculty Programs Committee

Minutes of Meetin;
Thursday, October 10, 1985
Quality Inn Airport - Room 301
Cleveland, Ohio

Present:

E. R. Brown, Chairman
D. Frederick
M. E. Childs
C. O. Harbourt

E. Hildreth, Jr. R. C. Jones M. A. Wechter

J. Lisack, Jr.,
Ex Officio

Absent:

C. J. Tompkins, Ex Officio

Guests:

J. Counts, NASA Headquarters F. Owens, NASA Headquarters R. Ryan, ONR Headquarters R. Sternberg, ONR Headquarters

The meeting was called to order at 1:59 p.m. by Chairman Brown.

- Introductions and welcome: Chairman Brown welcomed everyone and asked each person to introduce themselves.
- Approval of minutes: The minutes of the September 17, 1984 meeting were approved as submitted.
- 3. Reports on 1995 programs:
 - A. Department of Energy (Passive Solar Research Program)
 J. Lisack reported that due to financial constraints the
 Department of Energy would not be funding a summer faculty
 research program during 1986.
 See Attachment A.
 - B. NASA Summer Faculty Program
 - 1. Agency report—
 Frank Owens reported that NASA Headquarters has been reorganized and that Dr. Graham, Deputy Administrator of NASA (an electrical engineer), is very interested in NASA's educational efforts. Specific area, include 1.) University Programs; 2.) Elementary School Programs; 3.) Educational Publications. Information feedback systems are considered very important and the

special evaluation studies and committee reports that ASEE has conducted in the past will prove very valuable. Attachment B. was distributed by F. Owens and contains pertinent data about the NASA program.

F. Owens called upon Dr. G. Soffen to report on the program at Goddard, where one year ago several deficiences were identified. Attachment C. is an outline of his presentation. D. Frederick, who was a member of the evaluation team, was very impressed with the actions taken and the beneficial results. Dr. Soffen made the following personal observations--

The participating faculty are: enthusiastic; naive; representative of student's point of view; from small schools; space "nuts."

He would like to attract more young faculty from major universities. Generally he felt the ratio of scientists to engineers was too high and that the stipend was too low to attract really top notch engineers. His opinion was that the program is successful because of the opportunity for involvement in the space program and investigate future grant/contract potential.

- 2. ASEE report—
 It was reported that the program is very successful from ASEE's perspective. A new computer data base was described and samples of the type of information that can be generated were distributed as Attachment D. Questions that were asked based on the charts included: Why are there so few minority awards based on the relatively high number of applications? The number of women appears low and it was suggested that appeals be made to women's colleges. The utilization of the computerized data base was commended by the committee.
- C. ONR Summer Faculty Program
 - Agency report-R. Sternberg and R. Ryan reported on the program. The following comments highlighted their presentation.
 - *ONR is interested in exploring new alternatives to further enhance the quality of the program.
 - *The highest participation exists at larger labs where higher basic research budgets exist.
 - *The labs are supporting more and more appointments 200 total appointments are projected for 1986.

- *The stipend level is too low to attract more experienced, senior engineers.
- *The average age of the participating faculty has increased over the years.
- *Navy would like more prestigious universities represented.
- *The 1997 program will have to be competed (i.e., ASEE may not receive the 1987 contract).

It was reported that ONR will initiate a three-tiered stipend for faculty participants during 1986 in an effort to attract a few more experienced researchers from larger research oriented universities. Though it was recognized that the current program is very successful, the potential to further improve is the motivation for these changes. It was acknowledged that criteria for the tiered system has been developed and this would increase the administrative burden for the Navy. NASA asked to be informed about such changes in the ONR program as soon as possible so the adequate consideration, planning and budgeting could be given to their program.

- Based on the above, the committee voted unanimously:

 To support in theory the three tiered stipend program and review its effectiveness at next year's meeting.
- D. Laboratory visits:
 It was reported that visits were made by J. Lisack to Ames Research Center, Naval Ocean Systems Center, Naval Personnel Research & Development Center and the Naval Underwater Systems Center. Dr. M. Gilkeson, ASEE Assistant Executive Director, visited the Naval Underwater Systems Centers at Newport and New London. Committee member visits were not conducted during 1985 because of time and financial constraints.
- 4. Items for discussion for the 1985 Program:
 - A. Goals and objectives of each agency
 - 1. NASA Kennedy Space Center
 F. Owens reported that four (4) faculty appointments
 were made during 1985 and it is expected to double to
 eight (8) during 1986. The program is currently being
 administered through the University of AlabamaHuntsville but the committee was requested to
 recommend another university to work with Kennedy.

- 2. NASA National Space Technology Lab F. Owens requested Dr. Joyce to report on the NSTL. Dr. Joyce's presentation is highlighted in Attachment F. F. Owens asked the committee to approve placing three (3) or four (4) faculty members at NSTL. The committee voted unanimously: To approve the addition of the National Space Technology Lab as part of the Summer Faculty
 - Program.
- It was reported that operational restructuring will enable laboratories to fund university research directly.*
- B. Participant support 1. Stipends - already discussed under item 3.C.l. of this report.
 - 2. Relocation allocation J. Lisack alerted the committee that special relocation cost considerations will be included as part of participants' compensation in the Navy program and per diem may be considered in the future. (Navy is exploring this possibility).
 - 3. Mini grants/contracts It was mentioned that mini grants/contracts should be considered as an alternative to repeat summer appointments beyond 2/3 summers.
- C. Computerized data system: ASEE was encouraged to use and expand the data base to provide pertinent data in analyzing the effectiveness of the program.
- D. Timely notification of faculty selections: It was the consensus of the committee that written notification, possibly a telegram, be used to notify all selected faculty in addition to the telephone notification.
- E. Laboratory/Center visits: The following laboratories will be visited by the committee members listed.

Jet Propulsion Lab:

5. Brown

E. Hildreth

(Project Board member to be designated)

Marshall Space Flight Center:

C. Harbourt

M. Wechter

(Project Board member to be designated)

*As of June, 1996, this restructuring had been changed again.

Johnson Space Center:
R. Jones
D. Fredericks
(Project Board member to be designated)
C. Carter will coordinate thise visits.

- F. Special reports and program analysis:
 A brief statement was made that ASEE has conducted various evaluations of programs in the past and that similar studies can be conducted in the future.
- 7. Timely announcement distriction by labs: J. Lisack requested that lab personnel who want particular faculty to conduct research at their labs distribute the applications early and encourage faculty to return completed applications before the deadline.
- 5. Next meeting: The ONR has invited the committee to meet next fall at a Navy facility. This possibility will be explored.
- Adjournment:
 The meeting was adjourned at 5:20 p.m.



American Society for Engineering Education suite 200 eleven dupont circle, washington, d.c. 20036

May 16, 1985

(202) 293-7080

1985-86 SUMMER FACULTY PROGRAMS COMMITTEE

Ernest R. Brown (1987) Retired - Chairman (1986)

Morris F. Childs (1987) University of Washington
Daniel Frederick (1987) Virginia Polytechnic Institute and State University
Cyrus O. Harbout (1987) University of Missouri
Russel C. Jones (1987) Boston University
Edward Hildreth (1988) Southern University
Margaret A. Wechter (1988) Southeastern Massachusetts University

Ex Officio:

Vice President Public Affairs — Curt J. Tompkins ASEE Headquarters — John Lisack, Jr.

FROM: W. Edward Lear, Executive Director WEL

On behalf of President-Elect Robert N. Mills I invite you to serve as members of the above named committee with terms for new members beginning during the 1985 Annual Conference and terms for all expiring in June of the year listed after your name. It is expected the committee will plan its 1985-86 effort during its annual proposal evaluation meeting in September. This committee is a standing Society committee reporting to the Board of Directors through the Vice President, Public Affairs, who also serves as chairman of the Projects Board.

The mission of this committee is the maintenance of appropriate liaison with the National Aeronautics and Space Administration and all other agencies, public or private, for developing summer programs for engineering faculty, either in appropriate subject matter, research, or design. Because of the impact of the NASA/ASEE summer faculty fellowship programs on engineering education and the momentum developed by these programs for the support and development of engineering research and engineering systems design, the committee should consider building a broader base of operations with additional federal agencies. Special consideration should be given to the utilization of NASA-developed approaches to areas which are growing under the cognizance of NSF, DOE, ONR, ED, NIH and DOT.

Each Society committee is expected to submit an annual report by May 1, 1986, and other reports as required by business to be accomplished. To ensure continuity, the outgoing chairman should transfer to the incoming chairman the committee file of pertinent reports, correspondence, etc.

END

DATE FILMED

7-86