

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
WASHINGTON, D.C. 20546

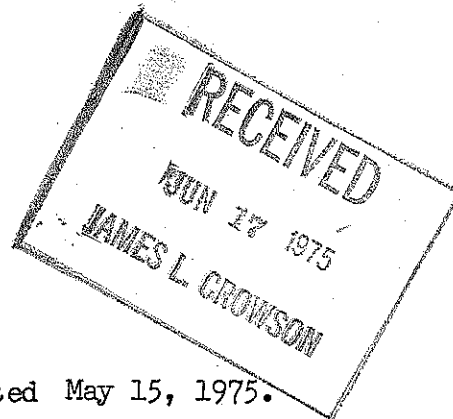


Orig: D. W. Carlson  
cc: J. R. Crowson

REPLY TO  
ATTN OF: ~~XXXX~~ JHC-1/NDSwilling

May 22, 1975

University of Texas at Dallas  
Attn: Business Office  
Post Office Box 688  
Richardson, TX 75080



Subject: NASA Grant NGR 44-004-120

Reference is made to your letter dated May 15, 1975.

We wish to advise you that this Office has no objection to the use of available funds from subject grant for travel as indicated below:

Amount: Not to exceed \$3,055.

Name of Participant(s): Dr. W. B. Hanson

Purpose of travel: To present papers at the Summer Advanced Study School and the IUGG Meeting. To conduct consultations with Drs. P. Stubbe and K. Spenner concerning scientific research.

Destination: Vienna, Austria; Freiburg, Germany; Grenoble, France

Dates of travel: August 2 - September 6, 1975

Upon completion of the travel, it is requested that a brief trip report be submitted to NASA Headquarters, Code I, Attention: Personnel Exchanges Division, and Code SG, Attention: Dr. D.P. Cauffman.

Joseph T. Davis  
Grants Officer

cc:

University of Texas  
John Vanderford

Nasa

To: Dr. F. S. Johnson

February 23, 1971

Subject: New Head for NASA

As I mentioned to you in the hall, a rumor coming from Salt Lake City is to the effect that Dr. James Chipman Fletcher, President of the University of Utah, is to be the next Administrator of NASA. You said you had heard another name mentioned. I am sure the information you are receiving from Houston and Washington is more reliable than the S.L.C. rumor, but I thought you might be interested in looking at Dr. Fletcher's background.

R. N. Stohl

Attachment  
RNS/cb

January 5, 1971

Dr. Eugene W. Scott, Director  
International Fellowships  
Office of Scientific Personnel  
National Academy of Sciences  
2101 Constitution Avenue  
Washington, D. C. 20418

Dear Dr. Scott:

Thank you for your letter of December 17, together with the listing of The University of Texas at Dallas in connection with the Space Science Study and Research Programs available at participating universities.

The listing for U. T. Dallas in the last brochure has one error, which is our fault. "Geochemistry" should be "Geology."

I am attaching the Cost of Living for NASA Fellows, which reflects no change from that given for last year.

Sincerely,

Ralph N. Stohl

Attachments  
RNS/cb

# NATIONAL RESEARCH COUNCIL

NATIONAL ACADEMY OF SCIENCES NATIONAL ACADEMY OF ENGINEERING

2101 CONSTITUTION AVENUE WASHINGTON, D.C. 20418

OFFICE OF SCIENTIFIC PERSONNEL

December 17, 1970

Mr. Ralph N. Stohl, Vice President  
University of Texas at Dallas  
Box 30365  
Dallas, Texas 75230

Dear Mr. Stohl:

We are planning to issue a new brochure for the NASA International University Fellowship program, in which we will list the principal fields of space science study and research available at participating universities for graduate and postdoctoral Fellows in 1971-1972.

In the last brochure, the space science offerings at your university were listed as follows:

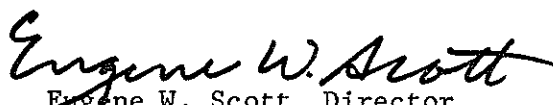
**UNIVERSITY OF TEXAS AT DALLAS—  
Dallas, Texas 75230**

Atmospheric and Space Sciences—*Atmospheric Structure, Cosmic Radiation, Ionospheric Physics, Planetary Atmospheres*; Biology—*Molecular Biology*; Physics—*Plasma Physics, Reaction Kinetics, Relativity*; Planetary Sciences—*Geochemistry, Geology, Geomagnetism, Paleomagnetism, Petrology, Seismology*.

We assume that you will want essentially the same listing in the 1971-72 brochure, and are enclosing an extra copy of this letter, in case you wish to refer the list to your department heads.

Since the brochure is to be sent to foreign sponsoring space science organizations whose Fellowship selection committees meet early in 1971, we would appreciate receiving the listing for your university for next year as soon as possible. If the present listing is approved without change, you may so indicate on the enclosed copy and return it to us.

Sincerely yours,

  
Eugene W. Scott, Director  
International Fellowships

# NATIONAL RESEARCH COUNCIL

NATIONAL ACADEMY OF SCIENCES NATIONAL ACADEMY OF ENGINEERING

2101 CONSTITUTION AVENUE WASHINGTON, D.C. 20418

OFFICE OF SCIENTIFIC PERSONNEL

18 December 1970

1971-72 Cost of Living estimates

Dr. Ralph N. Stohl, Vice President  
University of Texas at Dallas  
Box 30365  
Dallas, Texas 75230

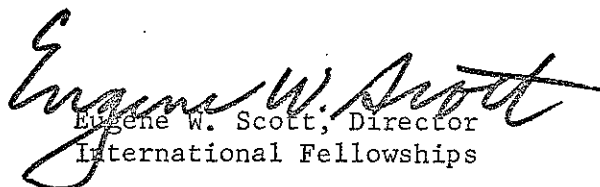
Dear Dr. Stohl:

Last year I asked you to complete a one-page questionnaire on living costs for students at your university. Using your reply as a basic guide, I prepared a list of 1970-1971 cost of living estimates at all the universities participating in the NASA International University Fellowships in Space Science program. This list is enclosed.

Please note that the estimates do not include any academic fees, tuition, or similar costs, since such costs are paid by a grant from the National Academy of Sciences to the university, and are not paid by the fellow.

Would you please complete the enclosed form and return it to me, indicating your estimate of living costs, including housing, food, clothing, and local transportation for 12 months, for (1) a single fellow, (2) a fellow and wife, and (3) a fellow, wife, and one child.

Sincerely yours,

  
Eugene W. Scott, Director  
International Fellowships

Enclosures:

1970-71 Living Costs

Form for 1971-1972 Costs

# NATIONAL RESEARCH COUNCIL

NATIONAL ACADEMY OF SCIENCES NATIONAL ACADEMY OF ENGINEERING

2101 CONSTITUTION AVENUE WASHINGTON, D.C. 20418

OFFICE OF SCIENTIFIC PERSONNEL

18 December 1970

## NASA INTERNATIONAL UNIVERSITY FELLOWSHIPS IN SPACE SCIENCE

### SURVEY OF 1971-1972 COST OF LIVING FOR NASA FELLOWS AT PARTICIPATING UNIVERSITIES

#### ESTIMATED ANNUAL COST

(Housing, Food, Clothing, and Local Transportation for 12 months)

SINGLE FELLOW:	\$ <u>3,675</u>
FELLOW AND WIFE:	\$ <u>4,730</u>
FELLOW, WIFE, AND ONE CHILD:	\$ <u>5,750</u>

#### COMMENTS:

No change from last year.

#### Submitted by:

Mr. Ralph N. Stohl  
(Name)  
  
(Title)  
The University of Texas at Dallas  
(University)  
January 5, 1971  
(Date)

#### Please return to:

Dr. Eugene W. Scott, Director  
International Fellowships  
Office of Scientific Personnel  
National Academy of Sciences  
2101 Constitution Avenue  
Washington, D. C. 20418

# NATIONAL RESEARCH COUNCIL

NATIONAL ACADEMY OF SCIENCES NATIONAL ACADEMY OF ENGINEERING

2101 CONSTITUTION AVENUE WASHINGTON, D.C. 20418

OFFICE OF SCIENTIFIC PERSONNEL

## NASA INTERNATIONAL UNIVERSITY FELLOWSHIPS IN SPACE SCIENCE

### COST OF LIVING ESTIMATES AT PARTICIPATING UNIVERSITIES

For Housing, Food, Clothing, and Local Transportation  
1970-1971

<u>UNIVERSITY</u>	<u>ANNUAL COST OF LIVING</u>		
	Single Fellow	Fellow & Wife	Fellow & Wife & One Child
UNIVERSITY OF ALABAMA			
Tuscaloosa, Alabama	\$3,000	\$3,600	\$4,500
Huntsville, Alabama	3,900	4,800	5,400
UNIVERSITY OF ARIZONA	3,600	5,000	5,600
Tucson, Arizona			
BROWN UNIVERSITY	3,500	4,750	5,350
Providence, Rhode Island			
CALIFORNIA INSTITUTE OF TECHNOLOGY	4,500	6,600	7,200
Pasadena, California			
UNIVERSITY OF CALIFORNIA			
Berkeley, California	3,600	6,000	6,600
Los Angeles, California	3,600	5,300	5,900
UNIVERSITY OF CHICAGO	4,000	6,000	7,000
Chicago, Illinois			
UNIVERSITY OF CINCINNATI	3,400	4,800	5,400
Cincinnati, Ohio			
UNIVERSITY OF COLORADO	3,500	5,900	6,500
Boulder, Colorado			
COLUMBIA UNIVERSITY	4,500	6,400	7,000
New York, New York			
CORNELL UNIVERSITY	3,235	5,720	6,220
Ithaca, New York			
HARVARD UNIVERSITY	5,000	6,500	7,000
Cambridge, Massachusetts			
UNIVERSITY OF ILLINOIS	3,200	5,200	6,085
Urbana, Illinois			
UNIVERSITY OF IOWA	3,000	4,200	4,800
Iowa City, Iowa			
UNIVERSITY OF KANSAS	3,000	4,200	4,800
Lawrence, Kansas			
UNIVERSITY OF MARYLAND	3,150	4,450	5,550
College Park, Maryland			
MASSACHUSETTS INSTITUTE OF TECHNOLOGY	5,000	6,500	7,000
Cambridge, Massachusetts			
UNIVERSITY OF MASSACHUSETTS	3,300	4,600	5,200
Amherst, Massachusetts			

NASA International University Fellowships  
COST OF LIVING ESTIMATES AT PARTICIPATING UNIVERSITIES  
 For Housing, Food, Clothing, and Local Transportation  
1970-1971

<u>UNIVERSITY</u>	<u>ANNUAL COST OF LIVING</u>		
	Single Fellow	Fellow & Wife	Fellow & Wife & One Child
UNIVERSITY OF MICHIGAN Ann Arbor, Michigan	\$3,200	\$4,800	\$5,800
UNIVERSITY OF MINNESOTA Minneapolis, Minnesota	4,000	6,000	6,600
NEW MEXICO STATE UNIVERSITY Las Cruces, New Mexico	3,200	4,100	5,000
NEW YORK UNIVERSITY New York, New York	3,800	4,750	6,000
OHIO STATE UNIVERSITY Columbus, Ohio	3,000	3,800	4,400
PENNSYLVANIA STATE UNIVERSITY University Park, Pennsylvania	3,000	3,600	4,200
UNIVERSITY OF PENNSYLVANIA Philadelphia, Pennsylvania	4,000	5,200	6,000
PRINCETON UNIVERSITY Princeton, New Jersey	4,200	5,600	6,600
PURDUE UNIVERSITY Lafayette, Indiana	3,150	5,200	6,100
RICE UNIVERSITY Houston, Texas	3,150	4,250	5,300
UNIVERSITY OF ROCHESTER Rochester, New York	3,400	4,500	5,000
SOUTHERN METHODIST UNIVERSITY Dallas, Texas	3,000	4,500	5,100
STANFORD UNIVERSITY Stanford, California	4,095	6,090	6,300
TEXAS A & M UNIVERSITY College Station, Texas	3,100	4,000	4,500
TEXAS CHRISTIAN UNIVERSITY Fort Worth, Texas	4,000	4,800	5,300
UNIVERSITY OF TEXAS Austin, Texas	3,100	4,000	4,500
UNIVERSITY OF TEXAS AT DALLAS Dallas, Texas	3,675	4,730	5,750
UNIVERSITY OF WISCONSIN Madison, Wisconsin	3,480	4,200	5,400
YALE UNIVERSITY New Haven, Connecticut	3,800	4,500	5,250

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Minimum Annual Living Allowance - \$3,000

Estimated Annual Increase for Each Additional Child - \$600

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March 1970



Letter dated 12/17/70  
Concerning listing for  
1971 - TX sent on to  
Anton Hales 1/4/71.

C B

Not Deschemistry  
Deschronology

December 22, 1969

Dr. Eugene W. Scott, Director  
International Fellowships  
Office of Scientific Personnel  
National Research Council  
Washington, D. C.

Dear Dr. Scott:

This is in response to your letter of December 5, 1969, addressed to Mr. R. C. Peavey, concerning the listing of Southwest Center for Advanced Studies.

On September 1, 1969, Southwest Center for Advanced Studies became The University of Texas at Dallas, a part of the University of Texas System. In view of this, the insert in your publication should be changed as follows:

THE UNIVERSITY OF TEXAS AT DALLAS  
--Dallas, Texas 75230

Atmospheric and Space Sciences -- Atmospheric  
Structure, Cosmic Radiation, Ionospheric Physics,  
Planetary Atmospheres; Planetary Sciences --  
Geochemistry, Geochemistry, Geomagnetism,  
Paleomagnetism, Petrology, Seismology; Physics--  
Plasma Physics, Reaction Kinetics, Relativity;  
Biology -- Molecular Biology.

I am also attaching an updated information sheet concerning the cost of living estimates at participating universities for 1970-71.

When the new brochure is published, I shall greatly appreciate receiving several copies.

Sincerely,

Ralph N. Stohl  
Vice President

Attachment  
RNS/cb

NASA INTERNATIONAL UNIVERSITY FELLOWSHIPS

COST OF LIVING ESTIMATES AT PARTICIPATING UNIVERSITIES FOR 1970-1971

To: University administrators of NASA International Fellowships in Space Science

From: Eugene W. Scott, Director, International Fellowships, Office of Scientific Personnel, National Research Council, 2101 Constitution Avenue, Washington, D.C. 20418

Subject: Information on living costs in your university area

Foreign sponsoring agencies pay the stipends to NASA International University Fellows, for living costs for Fellows and their families during the twelve-month appointments. My office annually provides these sponsors with a tabulation of cost of living estimates obtained from officials of the participating universities. For this purpose will you please complete the detailed form to the extent possible, provide the estimates requested in the final section, and return the form to me as soon as possible. A copy of the 1969-1970 report is attached.

HOUSING

1. Is University housing available? No
- Average monthly rent: Single student N/A Married student N/A
2. Are private furnished apartments available near the University? Yes
- Average monthly rent: One bedroom \$120 Two bedrooms \$140

SUBSISTENCE

3. Food: Average monthly cost per adult \$50
4. Clothing: Estimated monthly cost per adult for purchase and upkeep \$25
5. Transportation: Is public transportation available to campus and shopping centers? No

Estimated monthly cost for insurance and operation of an automobile \$60

MEDICAL COSTS

6. Is medical clinic service available at the University? Yes
- Is payment for this service included in the required student fees? N/A
7. Does the University have a medical insurance program? Yes
- Annual medical insurance cost per student \$82.92 to \$120 For student and wife \$202 to \$293

ANNUAL LIVING COSTS

Single student \$3674 Student and wife \$4730 Student, wife, and one child \$5753

Name: Ralph N. Stohl, Vice President

University: The University of Texas at Dallas (formerly Southwest Center for Advanced Studies) Date: December 22, 1969

# NATIONAL RESEARCH COUNCIL

NATIONAL ACADEMY OF SCIENCES NATIONAL ACADEMY OF ENGINEERING

2101 CONSTITUTION AVENUE WASHINGTON, D.C. 20418

OFFICE OF SCIENTIFIC PERSONNEL

## NASA INTERNATIONAL UNIVERSITY FELLOWSHIPS IN SPACE SCIENCE

### COST OF LIVING ESTIMATES AT PARTICIPATING UNIVERSITIES For Housing, Food, Clothing, and Local Transportation 1969-1970

<u>UNIVERSITY</u>	<u>ANNUAL COST OF LIVING</u>		
	Single Fellow	Fellow & Wife	Fellow & Wife & One Child
UNIVERSITY OF ALABAMA			
Tuscaloosa, Alabama	\$3,000	\$3,600	\$4,200
Huntsville, Alabama	3,690	4,560	5,160
UNIVERSITY OF ARIZONA	3,300	4,300	5,100
Tucson, Arizona			
BROWN UNIVERSITY	3,200	4,400	5,100
Providence, Rhode Island			
CALIFORNIA INSTITUTE OF TECHNOLOGY	4,500	6,600	7,200
Pasadena, California			
UNIVERSITY OF CALIFORNIA			
Berkeley, California	3,600	6,000	6,600
Los Angeles, California	3,600	5,280	5,860
UNIVERSITY OF CHICAGO	3,600	4,800	5,400
Chicago, Illinois			
UNIVERSITY OF CINCINNATI	3,000	4,400	5,100
Cincinnati, Ohio			
UNIVERSITY OF COLORADO	3,300	5,700	6,300
Boulder, Colorado			
COLUMBIA UNIVERSITY	4,500	6,400	7,000
New York, New York			
CORNELL UNIVERSITY	3,235	5,720	6,220
Ithaca, New York			
HARVARD UNIVERSITY	5,000	6,500	7,000
Cambridge, Massachusetts			
UNIVERSITY OF ILLINOIS	3,070	4,930	5,730
Urbana, Illinois			
UNIVERSITY OF IOWA	3,000	4,200	4,800
Iowa City, Iowa			
UNIVERSITY OF MARYLAND	3,000	4,200	5,250
College Park, Maryland			
MASSACHUSETTS INSTITUTE OF TECHNOLOGY	5,000	6,500	7,000
Cambridge, Massachusetts			
UNIVERSITY OF MASSACHUSETTS	3,000	3,840	4,500
Amherst, Massachusetts			

COST OF LIVING ESTIMATES AT PARTICIPATING UNIVERSITIES  
For Housing, Food, Clothing, and Local Transportation  
1969-1970

-2-

UNIVERSITY	ANNUAL COST OF LIVING		
	Single Fellow	Fellow & Wife	Fellow & Wife & One Child
UNIVERSITY OF MICHIGAN Ann Arbor, Michigan	\$3,200	\$4,800	\$5,800
UNIVERSITY OF MINNESOTA Minneapolis, Minnesota	3,180	4,200	4,800
NEW MEXICO STATE UNIVERSITY Las Cruces, New Mexico	3,180	4,000	4,900
NEW YORK UNIVERSITY New York, New York	3,600	4,620	5,400
OHIO STATE UNIVERSITY Columbus, Ohio	3,000	3,800	4,300
PENNSYLVANIA STATE UNIVERSITY University Park, Pennsylvania	3,000	3,600	4,200
UNIVERSITY OF PENNSYLVANIA Philadelphia, Pennsylvania	3,750	4,750	5,500
PRINCETON UNIVERSITY Princeton, New Jersey	3,800	5,200	6,000
RICE UNIVERSITY Houston, Texas	3,150	4,250	5,300
UNIVERSITY OF ROCHESTER Rochester, New York	3,400	4,500	5,000
SOUTHERN METHODIST UNIVERSITY Dallas, Texas	3,400	4,500	5,100
SOUTHWEST CENTER FOR ADVANCED STUDIES Dallas, Texas	3,340	4,300	5,230
STANFORD UNIVERSITY Stanford, California	3,900	5,800	6,400
TEXAS CHRISTIAN UNIVERSITY Fort Worth, Texas	3,800	4,600	5,200
UNIVERSITY OF TEXAS Austin, Texas	3,000	3,600	4,200
UNIVERSITY OF WISCONSIN Madison, Wisconsin	3,480	4,200	5,400
YALE UNIVERSITY New Haven, Connecticut	3,600	4,800	5,400

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Minimum Annual Living Allowance - \$3,000

Estimated Annual Increase for Each Additional Child - \$600

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January 1969

# NATIONAL RESEARCH COUNCIL

NATIONAL ACADEMY OF SCIENCES NATIONAL ACADEMY OF ENGINEERING

2101 CONSTITUTION AVENUE WASHINGTON, D.C. 20418

OFFICE OF SCIENTIFIC PERSONNEL

December 5, 1969

Mr. R. C. Peavey  
Assistant to the President  
Southwest Center for Advanced Studies  
P. O. Box 30365  
Dallas, Texas 75230

Dear Mr. Peavey:

We are planning to issue a new brochure for the NASA International University Fellowship program, in which we will list the principal fields of space science study and research available at participating universities for graduate and postdoctoral Fellows in 1970-1971.

In the last brochure, the space science offerings at your university were listed as follows:

*University of Texas at Dallas*  
~~SOUTHWEST CENTER FOR ADVANCED STUDIES~~  
~~—Dallas, Texas 75230~~  
~~Aerospace Engineering; Atmospheric and Space Sci-~~  
~~ences—Atmospheric Structure, Cosmic Radiation, Iono-~~  
~~spheric Physics, Planetary Atmospheres; Planetary Sci-~~  
~~ences—Geochemistry, Geochemology, Geomagnetism,~~  
~~Paleomagnetism, Petrology, Seismology; Physics—Plasma~~  
~~Physics, Reaction Kinetics, Relativity. Registration for~~  
~~courses will be through Space Sciences Center, Southern~~  
~~Methodist University.~~

We assume that you will want essentially the same listing in the 1970-71 brochure, and are enclosing an extra copy of this letter, in case you wish to refer the list to your department heads.

Since the brochure is to be sent to foreign sponsoring space science organizations whose Fellowship selection committees meet early in 1970, we would appreciate receiving the listing for your university for next year as soon as possible. If the present listing is approved without change, you may so indicate on the enclosed copy and return it to us.

Sincerely yours,

*Eugene W. Scott*  
Eugene W. Scott, Director  
International Fellowships

Forward to?

at UT-D

2

sa  
Ralph Stahl  
check

DEC 8 1969

# NATIONAL RESEARCH COUNCIL

NATIONAL ACADEMY OF SCIENCES NATIONAL ACADEMY OF ENGINEERING

2101 CONSTITUTION AVENUE WASHINGTON, D.C. 20418

OFFICE OF SCIENTIFIC PERSONNEL

5 December 1969

Dean Claude Albritton  
Graduate School of Humanities and Sciences  
Southern Methodist University  
Dallas, Texas 75222

Dear Dean Albritton:

Last year you requested a change in the course listings for our NASA Fellowship brochure. I attach a copy of your letter of March 11, 1969 concerning the listings for Southern Methodist University and for the Southwest Center for Advanced Studies.

In our requests to the universities to submit listings for the fellowship brochure, we find that each year we receive more interdisciplinary fields such as exobiology or geochemistry. Except for grouping of subjects under main headings such as engineering, and alphabetical arrangement, we list the subjects as we receive them from the universities.

We are now requesting university listings for our 1970-1971 brochure. Perhaps you may wish to discuss the wording of the listings with Texas Christian University and with the Southwest Center for Advanced Studies, so we may have a text that is mutually acceptable to all three institutions.

Sincerely yours,

Enclosures:  
Letter copy and Brochure  
cc:  
Dr. E. Leigh Secrest  
Texas Christian University

Eugene W. Scott, Director  
International Fellowships

✓ Mr. R. C. Peavey  
Southwest Center for Advanced Studies



# NATIONAL RESEARCH COUNCIL

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2101 CONSTITUTION AVENUE WASHINGTON, D.C. 20418

OFFICE OF SCIENTIFIC PERSONNEL

December 5, 1969

Mr. R. C. Peavey  
Assistant to the President  
Southwest Center for Advanced Studies  
P. O. Box 30365  
Dallas, Texas 75230

Dear Mr. Peavey:

We are planning to issue a new brochure for the NASA International University Fellowship program, in which we will list the principal fields of space science study and research available at participating universities for graduate and postdoctoral Fellows in 1970-1971.

In the last brochure, the space science offerings at your university were listed as follows:

*University of Texas at Dallas*  
**SOUTHWEST CENTER FOR ADVANCED STUDIES**  
—Dallas, Texas 75230  
~~Aerospace Engineering; Atmospheric and Space Sciences—Atmospheric Structure, Cosmic Radiation, Ionospheric Physics, Planetary Atmospheres; Planetary Sciences—Geochemistry, Geochemistry, Geomagnetism, Paleomagnetism, Petrology, Seismology; Physics—Plasma Physics, Reaction Kinetics, Relativity. Registration for courses will be through Space Sciences Center, Southern Methodist University.~~

We assume that you will want essentially the same listing in the 1970-71 brochure, and are enclosing an extra copy of this letter, in case you wish to refer the list to your department heads.

Since the brochure is to be sent to foreign sponsoring space science organizations whose Fellowship selection committees meet early in 1970, we would appreciate receiving the listing for your university for next year as soon as possible. If the present listing is approved without change, you may so indicate on the enclosed copy and return it to us.

Sincerely yours,

*Eugene W. Scott*  
Eugene W. Scott, Director  
International Fellowships

# INTERNATIONAL UNIVERSITY FELLOWSHIPS IN SPACE SCIENCE

GRADUATE AND POSTDOCTORAL

supported by

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

**1969-1970**

tenable at

**PARTICIPATING UNITED STATES UNIVERSITIES**

administered by

Office of Scientific Personnel

NATIONAL RESEARCH COUNCIL

National Academy of Sciences - National Academy of Engineering

2101 Constitution Avenue, Washington, D. C. 20418, USA

## Graduate and Postdoctoral

### NASA INTERNATIONAL UNIVERSITY FELLOWSHIPS IN SPACE SCIENCE

#### General Information

The National Aeronautics and Space Administration International University Program in Space Science is a part of NASA's total international cooperative effort. Its purpose is to assist regional and national space research organizations abroad to develop, for their space research programs, scientists and technologists trained in such subjects as astronomy, astrophysics, magnetic fields and particles, meteorology, planetary science, plasma physics, solar physics, space biology, and space science engineering. To this end, the NASA International University Fellowships provide an opportunity for promising young scientists and engineers to study and participate in research in the space sciences at leading universities in the United States.

#### Qualifications of Applicants

Graduate and Postdoctoral Fellowships in Space Sciences are open *only to foreign nationals sponsored by their National or Regional Space Research Organizations* or, where such organizations have not been established, by their National Research Council or other appropriate organization.

Applicants are expected to have training equivalent to that represented by an earned Master of Science or Master of Engineering degree awarded by an accredited educational institution in the United States and must meet graduate student entrance requirements at United States universities. A good background in the physical sciences or in engineering should be evidenced, as well as competence in the English language.

#### Fellowship Activities

It is expected that a Fellow will devote full time to theoretical or experimental research and to advanced training in any of the space science fields. The Fellow will pursue programs under the supervision of senior faculty advisers and will be provided with the necessary experimental and computing facilities. Listed in this announcement are space science study and research opportunities currently available for NASA Fellows at the participating universities.

#### Stipend and Grant

The National or Regional Space Research Organization or other appropriate sponsoring organization will provide for the travel of the Fellow and accompanying dependents to the United States and return to point of origin. The sponsoring organization will also pay the cost of adequate subsistence for the Fellow and his dependents during the term of his Fellowship in the United States.

The United States National Research Council, which administers the program for NASA, will pay the Fellow's

tuition, academic fees, and appropriate research costs by grant to the University. The National Research Council will also pay travel costs within the United States for the Fellow and accompanying dependents to and from his university, and will pay the Fellow's travel costs for scientific visits which it has approved.

NASA Fellows are not permitted to accept salaried positions or financial support from any other United States source during the term of the Fellowship.

#### Conditions of Appointment

Applications should be made to the National Space Research Organization, National Research Council, or appropriate organization of the applicant's country. Applications must be accompanied by a statement of all university training, a statement of previous research, evidence of competence in English, names of references who are acquainted with the applicant's academic and professional experience, and a statement in English outlining the proposed program of study and research.

When nominating the applicant, the sponsoring organization will submit the application with its recommendation to the Office of Scientific Personnel of the United States National Research Council for evaluation. The application may be submitted directly by the sponsoring organization or through a Regional Space Research Organization as appropriate. The sponsoring organization will certify that maintenance and international travel costs for the applicant and any accompanying dependents will be provided as indicated above.

Applications will be received at any time, but should preferably be sent to the National Research Council in Washington not later than the end of March, to allow for correspondence with the universities. It is desirable that programs of study and research coincide with the beginning of the academic year in September.

Fellowship appointments will normally be for twelve months. When supported by the Fellow's sponsoring organization and by the university where he holds his appointment, extensions of one year or less can be granted. The number of extensions granted each year is dependent upon the total number of applications in the year.

It is *not* intended that a Fellowship lead to employment in the United States; on the contrary, Fellows will be expected to return to their own countries to support space research activities there.

#### Application Forms

Requests for application forms or for additional information should be addressed to the Office of Scientific Personnel, National Research Council, 2101 Constitution Avenue, Washington, D. C. 20418, U.S.A., or to the applicant's national or regional sponsoring organization.

# NASA INTERNATIONAL UNIVERSITY FELLOWSHIPS IN SPACE SCIENCE

Fields of Space Science Study and Research at Participating Universities

1969-1970

## UNIVERSITY OF ALABAMA—

University, Alabama 35486

Applied Mathematics; Biology; Chemistry; Engineering—*Aerospace, Chemical, Civil, Electrical, Engineering Mechanics, Industrial, Mechanical, Metallurgical, Mineral, Nuclear*; Physics.

## UNIVERSITY OF ALABAMA—

Huntsville, Alabama 35807

(Same offerings as at main campus, listed above.)  
Space Science Research: Computer Science; Electromagnetics; Gasdynamics; Operations Research; Re-entry Hypersonics; Space Communications; Structures Sciences.

## UNIVERSITY OF ARIZONA—

Tucson, Arizona 85721

Astronomy, including *Lunar and Planetary*; Chemistry; Engineering—*Aerospace, Chemical, Civil, Electrical, Geological, Mechanical, Nuclear, Systems*; Engineering Mechanics; Geology; Mathematics; Metallurgy; Meteorology; Optical Sciences; Physics.

## BROWN UNIVERSITY—

Providence, Rhode Island 02912

Applied Mathematics; Bio-Medical Sciences; Chemistry; Engineering; Geological Sciences; Mathematics; Physics.

## CALIFORNIA INSTITUTE OF TECHNOLOGY—

Pasadena, California 91109

Essentially all Biological, Chemical, Geological, Mathematical, and Physical Sciences; and Engineering.

## UNIVERSITY OF CALIFORNIA—

Berkeley, California 94720

Astronomy; Astrophysics; Atmospheric and Space Sciences; Biology; Chemistry; Engineering—*Aeronautical, Chemical, Electrical, Heat-Power Systems, Mechanical, Mineral Technology, Nuclear, Sanitary, Structural*; Exobiology; Genetics; Geology; Geophysics; Mathematics; Molecular Biology; Nutritional Sciences; Physics—*Atomic, Medical, Nuclear, Plasma, Solid State*; Physiology; Satellite Theory; Statistics.

## UNIVERSITY OF CALIFORNIA—

Los Angeles, California 90024

Astronomy; Astrophysics; Biology—*Environmental, Radio, Systems*; Bionics; Data Processing; Engineering—*Cryogenic Systems, Heat to Electricity Conversion, Special Materials*; Geochemistry; Geophysics; Meteorology; Physics—*Cosmic Ray, Planetary, Space*; Space Chemistry.

## UNIVERSITY OF CHICAGO—Chicago, Illinois 60637

Astronomy; Astrophysics; Chemistry, Cosmic Rays; Geochemistry; Geophysics; Information Sciences; Mathematics; Physics; Statistics.

## UNIVERSITY OF CINCINNATI—

Cincinnati, Ohio 45221

Biomechanics; Celestial Mechanics; Experimental Psychology; Heat and Mass Transfer; High Speed Gas Dynamics; Materials Science; Nuclear Science; Propulsion; Solid State Physics; Space Biology and Medicine; Space Dynamics; Structures and Structural Dynamics; Systems.

## UNIVERSITY OF COLORADO—

Boulder, Colorado 80302

Aerodynamics; Control Theory and Space Mechanics; Dynamic Meteorology; The Ionosphere; Physics—*Low Energy Atomic Processes, Planetary and Interplanetary, Solar, Stellar Atmospheres, Upper Atmosphere*; Planetary and Solar Radio Astronomy; Plasmas.

## COLUMBIA UNIVERSITY—

New York, New York 10027

Astrophysics—*Galaxies, Interstellar Medium, Nucleosynthesis, Radio Astronomy, Stellar Structure*; Engineering—*Communications and Radar Systems, Controls and Guidance, Flight Structures, Gas Dynamics, Materials, and Plasma Physics*; Planetary Physics—*General Circulation of the Atmosphere, Magnetosphere and Interplanetary Plasma, Origin of the Solar System, Physics of the Upper Atmosphere, Planetary Bodies and their Atmospheres, Radiative and Convective Transfer*.

## CORNELL UNIVERSITY—Ithaca, New York 14850

Aerodynamics; Applied Mathematics as related to Optimization of Orbits and Information and Control Theory of Space Vehicles; Astrophysics; Cosmology; Gas Dynamics; Kinetic Theory; Magneto-hydrodynamics; Physics, including *Lunar, Planetary, Plasma, and Space*; Radio Astronomy; Stellar Structure.

## HARVARD UNIVERSITY—

Cambridge, Massachusetts 02138

Astronomy; Biology; Chemistry; Engineering; Geophysics; Mathematics; Physics.

## UNIVERSITY OF ILLINOIS—Urbana, Illinois 61801

Aeronomy; Astronomy—*Astrophysics, Radio Astronomy, Stellar Spectroscopy*; Biochemistry; Bio-engineering; Chemistry; Computer Science; Engineering—*Aeronautical, Astronautical, Ceramic, Chemical, Civil, Electrical, Industrial, Mechanical, Metallurgical, Nuclear, Sanitary, Theoretical and Applied Mechanics*; Geology; Life Sciences—*Biophysics, Botany, Entomology, Microbiology, Physiology, Zoology*; Material Science; Mathematics; Physics—*Atomic, Atmospheric, Cryogenic, Nuclear, Particle, Plasma, Solid State*; Psychology; Space Sciences; Systems and Controls.

## UNIVERSITY OF IOWA—Iowa City, Iowa 52240

Astronomy—*Photometry of Variable Stars, Aurorae*; Geomagnetically Trapped Radiation; Geomagnetism; Physics—*Ionospheric, Interplanetary, Magnetospheric, Plasma, Solar Planetary*; Solar and Galactic Cosmic Rays; Solar X-Rays; Use of Balloons, Rockets, Satellites, Deep Space Probes, and Planetary Probes in Astronomical and Physical Experiments; VLF Radio.

## UNIVERSITY OF MARYLAND—

College Park, Maryland 20742

Astronomy; Astrophysics; Cosmic Rays; General Relativity; Meteorology; Physics—*Atmospheric, Elementary Particles, High Temperature, Nuclear, Planetary, Plasma, Solar, Solid State, Space*; Quantum Electronics; Radio Astronomy.

## MASSACHUSETTS INSTITUTE OF TECHNOLOGY

—Cambridge, Massachusetts 02139

Engineering, including *Space Vehicle Instrumentation*; Industrial Management, Life Sciences, including *Nutrition*; Mathematical Sciences; Physical Sciences; Social Sciences.

## UNIVERSITY OF MASSACHUSETTS—

Amherst, Massachusetts 01003

Astronomy, including *Radioastronomy*; Astrophysics; Chemistry; Computer Science; Engineering—*Aerospace, Chemical, Electrical, Mechanical*; Geology; Mathematics; Microbiology; Physics—*Atomic, Gravitational Theory, High Energy, Nuclear, Solar System, Solid State*; Polymer Science and Engineering; Psychology; Statistics; Zoology.

# FIELDS OF SPACE STUDY AND RESEARCH AT PARTICIPATING UNIVERSITIES

(Continued)

## UNIVERSITY OF MICHIGAN—

Ann Arbor, Michigan 48104

Aeronomy; Astronomy; Astrophysics; Biological and Health Sciences; Chemistry; Cosmic Rays; Engineering—*Aeronautical, Astronautical, Chemical, Computer, Electrical, Information and Control, Materials, Mechanical, Metallurgical, Nuclear*; Geology; Magnetohydrodynamics; Mathematics; Meteorology; Oceanography; Physics, including *Plasma*; Psychology; Radio Astronomy.

## UNIVERSITY OF MINNESOTA—

Minneapolis, Minnesota 55455

Aeronautical Engineering; Aerospace Systems; Astrophysics; Physics—*Atmospheric, Cosmic Ray, Plasma*.

## NEW MEXICO STATE UNIVERSITY—

Las Cruces, New Mexico 88001

Applied Mathematics—*Computer Science, Statistics*; Applied Mechanics; Applied Work in Antenna Engineering; Sounding Rocketry, and Trajectory Calculations; Astronautics; Biology—*Stress and Survival in Extreme Environments*; Chemistry—*High Temperature Thermodynamics, Solid State Spectroscopy*; Electromagnetic Theory; Environmental Contamination and Control; Fluid Mechanics; Gas Dynamics; Heat Transfer (radiative); Optics; Physics—*Atmospheric, Plasma, Solar Energy*; Rocket Simulation on Analog Computer; Space Communication Systems; Structural Design; Structural Mechanics; Threshold Logic; Video Signal Processing in Low Signal to Noise Environment.

## NEW YORK UNIVERSITY

New York, New York 10453

Astrophysics; Atmospheric and Space Sciences; Biology; Chemistry; Engineering—*Aeronautical, Astronautical, Chemical, Communications and Data Processing, Electrical, Mechanical, Nuclear, Power*; Gas Dynamics; Mathematics; Mechanics; Metallurgy; Meteorology and Oceanography; Physics—*Atomic, Molecular, Plasma, Planetary, Solid State, Stellar*.

## OHIO STATE UNIVERSITY—Columbus, Ohio 43210

Astronomy; Biochemistry; Chemistry; Engineering—*Aeronautical, Astronautical, Ceramic, Electrical, Mechanical, Metallurgical, Nuclear, and Engineering Mechanics*; Geodetic Science; Geology; Microbiology; Mineralogy; Physics; Physiological Chemistry; Physiology; Psychology.

## PENNSYLVANIA STATE UNIVERSITY—

University Park, Pennsylvania 16802

Aeronomy; Astronomy—*Optical, Radio*; Biophysics; Ceramic Science; Chemistry; Computer Science; Engineering—including *Aerospace, Chemical, Electrical, Engineering Mechanics, Mechanical, Nuclear*; Fuel Science; Geochemistry; Geophysics; Human Performance; Ionospheres; Laser Communications; Low Oxygen Acclimation; Mathematics; Metallurgy; Meteorology; Mineralogy; Physics, including *Field Ion Electron Microscopy, Nuclear, Solid State, Spectroscopy*; Plasmas; Psychology; Solid State Electronics and Technology.

## UNIVERSITY OF PENNSYLVANIA—

Philadelphia, Pennsylvania 19104

Astronomy, including *Nuclear Astrophysics*; Biology; Chemistry; Engineering—*Biomedical Electronic Engineering, Chemical, Civil, Computers and Information Science, Electrical, Energy Conversion, Mechanical, Metallurgy and Materials Science, Systems*; Geology; Mathematics; Physics—*High Energy and Solid State*.

## PRINCETON UNIVERSITY—

Princeton, New Jersey 08540

Astronomy; Astrophysics; Biochemistry; Biology; Chem-

istry; Communication and Control; Flight Mechanics; Gas Dynamics; Geophysical Fluid Dynamics; Geophysics; Information Processing; Jet Propulsion; Mathematics; Physics—*Atomic, Molecular, Plasma*.

## RICE UNIVERSITY—Houston, Texas 77001

Auroras; Gamma-Ray Astronomy; Geomagnetism; Infra-Red Astronomy; Interplanetary Medium; Planetary Atmospheres; Solar-Terrestrial Relationships; Stellar Evolution and Astrophysics; Van Allen Radiation and Cosmic Rays.

## UNIVERSITY OF ROCHESTER—

Rochester, New York 14627

Astronomy; Biochemistry; Biology; Chemistry; Engineering—*Aerospace, Biomedical, Chemical, Electrical, Materials Science, Mechanical, Optics*; Geology; Pharmacology; Physics; Physiology; Psychology; Radiation Biology.

## SOUTHERN METHODIST UNIVERSITY—

Dallas, Texas 75222

Anthropology; Economics; Engineering—*Aerospace, Electrical, Mechanical, Systems*; Geological Sciences—(research projects may also be conducted at the Southwest Center for Advanced Studies); Physics; Statistics—*Experimental and Mathematical*.

## SOUTHWEST CENTER FOR ADVANCED STUDIES

—Dallas, Texas 75230

Aerospace Engineering; Atmospheric and Space Sciences—*Atmospheric Structure, Cosmic Radiation, Ionospheric Physics, Planetary Atmospheres*; Planetary Sciences—*Geochemistry, Geochemistry, Geomagnetism, Paleomagnetism, Petrology, Seismology*; Physics—*Plasma Physics, Reaction Kinetics, Relativity*. Registration for courses will be through Space Sciences Center, Southern Methodist University.

## STANFORD UNIVERSITY—

Stanford, California 94305

Aeronautics and Astronautics; Biology; Exobiology; Physics; Plasma Research; Radio Astronomy; Radio Propagation; Space Science.

## TEXAS CHRISTIAN UNIVERSITY—

Fort Worth, Texas 76129

Astrophysics; Biochemistry; Earth and Planetary Sciences; Physics—*Materials, Solid State*; Psychology—*Behavioral, Learning, and Perception*; Structural Chemistry. Research projects may also be conducted at the Southwest Center for Advanced Studies.

## UNIVERSITY OF TEXAS—Austin, Texas 78712

Astronomy; Engineering—*Aerospace, Chemical, Civil, Electrical*; Physics.

## UNIVERSITY OF WISCONSIN—

Madison, Wisconsin 53706

Astronomy; Bacteriology; Biochemistry; Botany; Chemistry; Engineering—*Chemical, Electrical, Mechanical, Mechanics, Metallurgical, Mining, Nuclear*; Genetics; Geology; Geophysics; Mathematics; Meteorology; Pathology; Physics; Physiology; Physiological Chemistry; Political Sciences; Psychology; Zoology.

## YALE UNIVERSITY—

New Haven, Connecticut 06520

Astronomy; Biochemistry; Biology; Chemistry; Engineering and Applied Science; Geology; Geophysics; Mathematics; Microbiology; Molecular Biophysics; Physics; Statistics.



December 6, 1968

Dr. Eugene W. Scott, Director  
International Fellowships  
Office of Scientific Personnel  
National Research Council  
Washington, D.C.

Dear Dr. Scott:

This replies to your letter to me of December 4 concerning the space science offerings of the Southwest Center in the forthcoming brochure on the NASA International University Fellowship Program.

During the past year, our situation has changed substantially and favorably as a result of an agreement between the Center and Southern Methodist University, in which our faculty in the space sciences serves formally as the space sciences faculty for Southern Methodist University. Consequently, this is to request that our listing in the new NASA brochure be changed to the following:

Atmospheric and Space Sciences--Atmospheric Structure, Cosmic Radiation, Ionospheric Physics, Planetary Atmospheres; Planetary Sciences--Geochemistry, Geochemistry, Geomagnetism, Paleomagnetism, Petrology, Seismology; Physics--Relativity, Plasma Physics, Reaction Kinetics; Aerospace Engineering. Registration for courses will be through Space Sciences Center, Southern Methodist University.

Dr. Scott  
December 6, 1968  
Page 2

Also attached is an updated information sheet concerning the cost of living in our area.

When the new brochure is published, I should greatly appreciate receiving several copies.

Sincerely yours,

R. C. Peavey  
Assistant to the President

RCP:hm  
Enclosure

# NATIONAL RESEARCH COUNCIL

NATIONAL ACADEMY OF SCIENCES NATIONAL ACADEMY OF ENGINEERING

2101 CONSTITUTION AVENUE WASHINGTON, D.C. 20418

OFFICE OF SCIENTIFIC PERSONNEL

R.C. Peavey  
Assistant to the President  
Southwest Center for Advanced Studies  
P. O. Box 30365  
Dallas, Texas 75230

4 December 1968

Dear Mr. Peavey:

We are planning to issue a new brochure for the NASA International University Fellowship program, in which we will list the principal fields of space science study and research available at participating universities for graduate and post-doctoral Fellows in 1969-1970.

In the last brochure, the space science offerings at your university were listed as follows:

**SOUTHWEST CENTER FOR ADVANCED STUDIES**  
—Dallas, Texas 75230

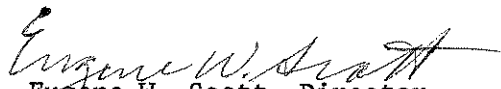
Research Projects only: Atmospheric Structure; Cosmic Radiation; Geochemistry; Geochronology; Geomagnetism; Ionospheric Physics; Molecular Biology; Petrology; Planetary Atmospheres; Plasma Physics; Reaction Kinetics; Relativity; Seismology. Registration for courses will be at Southern Methodist University, or at Texas Christian University.

We assume you will want essentially the same listing in the 1969-1970 brochure, and are enclosing an extra copy of this letter, in case you wish to refer the list to your department heads.

Since the brochure is to be sent to foreign sponsoring space science organizations whose Fellowship selection committees meet early in 1969, we would appreciate receiving the listing as you wish it to appear for your university as soon as possible. If the present listing is approved without change, you may so indicate on the copy and return it to us.

Many thanks for your cooperation.

Sincerely yours,

  
Eugene W. Scott, Director  
International Fellowships

EWS:bps  
enclosure



NASA INTERNATIONAL UNIVERSITY FELLOWSHIPS

COST OF LIVING ESTIMATES AT PARTICIPATING UNIVERSITIES FOR 1969-1970

To: University administrators of NASA International Fellowships in Space Science

From: Eugene W. Scott, Director, International Fellowships, Office of Scientific Personnel, National Research Council, 2101 Constitution Avenue, Washington, D.C. 20418

Subject: Information on living costs in your university area

Foreign sponsoring agencies pay the stipends to NASA International University Fellows, for living costs for Fellows and their families during the twelve-month appointments. My office annually provides these sponsors with a tabulation of cost of living estimates obtained from officials of the participating universities. For this purpose will you please complete the detailed form to the extent possible, provide the estimates requested in the final section, and return the form to me as soon as possible. A copy of the 1968-1969 report is attached.

HOUSING

1. Is University housing available? No  
Average monthly rent: Single student N/A Married student N/A
2. Are private furnished apartments available near the University? Yes  
Average monthly rent: One bedroom \$160.00 Two bedrooms \$200.00

SUBSISTENCE

3. Food: Average monthly cost per adult \$42.00
4. Clothing: Estimated monthly cost per adult for purchase and upkeep \$20.00
5. Transportation: Is public transportation available to campus and shopping centers?  
No  
Estimated monthly cost for insurance and operation of an automobile \$50.00

MEDICAL COSTS

6. Is medical clinic service available at the University? No  
Is payment for this service included in the required student fees? N/A
7. Does the University have a medical insurance program? Yes  
Annual medical insurance cost per student 0 For student and wife \$156.00

ANNUAL LIVING COSTS

Single student \$3,340 Student and wife \$4,300 Student, wife, and one child \$5,230

Name: R. C. Peavey

University: Southwest Center for Advanced Studies

Date: December 9, 1968

Office of Scientific Personnel  
NATIONAL RESEARCH COUNCIL  
2101 Constitution Avenue, Washington, D. C. 20418

NASA INTERNATIONAL UNIVERSITY FELLOWSHIPS IN SPACE SCIENCE

REPORT ON COST OF LIVING FOR NASA FELLOWS AT PARTICIPATING UNIVERSITIES  
For Housing, Food, Clothing, and Local Transportation for Twelve Months  
1968 - 1969

<u>UNIVERSITY</u>	<u>ANNUAL COST OF LIVING</u>		
	Single Fellow	Fellow & Wife	Fellow & Wife & One Child
UNIVERSITY OF ALABAMA			
Tuscaloosa, Alabama	\$3,000	\$3,600	\$4,200
Huntsville, Alabama	3,690	4,560	5,160
UNIVERSITY OF ARIZONA	3,000	4,020	4,800
Tucson, Arizona			
CALIFORNIA INSTITUTE OF TECHNOLOGY	4,380	6,480	6,960
Pasadena, California			
UNIVERSITY OF CALIFORNIA			
Berkeley, California	3,600	6,000	6,600
Los Angeles, California	3,600	5,280	5,760
UNIVERSITY OF CHICAGO	3,000	4,560	5,280
Chicago, Illinois			
UNIVERSITY OF CINCINNATI	3,000	4,020	4,920
Cincinnati, Ohio			
UNIVERSITY OF COLORADO	3,300	5,700	6,300
Boulder, Colorado			
COLUMBIA UNIVERSITY	3,780	4,800	6,000
New York, New York			
CORNELL UNIVERSITY	3,000	4,320	5,100
Ithaca, New York			
HARVARD UNIVERSITY	4,500	6,000	6,600
Cambridge, Massachusetts			
UNIVERSITY OF IOWA	3,000	4,200	4,800
Iowa City, Iowa			
UNIVERSITY OF MARYLAND	3,000	4,020	5,160
College Park, Maryland			
MASSACHUSETTS INSTITUTE OF TECHNOLOGY	4,500	6,000	6,600
Cambridge, Massachusetts			
UNIVERSITY OF MASSACHUSETTS	3,000	3,840	4,500
Amherst, Massachusetts			
UNIVERSITY OF MICHIGAN	3,180	4,800	5,820
Ann Arbor, Michigan			
UNIVERSITY OF MINNESOTA	3,180	4,200	4,800
Minneapolis, Minnesota			

(Continued)

REPORT ON COST OF LIVING FOR NASA FELLOWS AT PARTICIPATING UNIVERSITIES  
For Housing, Food, Clothing, and Local Transportation for Twelve Months  
1968 - 1969

- 2 -

<u>UNIVERSITY</u>	<u>ANNUAL COST OF LIVING</u>		
	Single Fellow	Fellow & Wife	Fellow & Wife & One Child
NEW MEXICO STATE UNIVERSITY Las Cruces, New Mexico	\$3,180	\$4,200	\$5,100
NEW YORK UNIVERSITY New York, New York	3,600	4,620	5,400
OHIO STATE UNIVERSITY Columbus, Ohio	3,000	3,780	4,380
PENNSYLVANIA STATE UNIVERSITY University Park, Pennsylvania	3,000	3,900	4,620
UNIVERSITY OF PENNSYLVANIA Philadelphia, Pennsylvania	3,540	4,500	5,520
PRINCETON UNIVERSITY Princeton, New Jersey	3,480	4,980	5,400
RICE UNIVERSITY Houston, Texas	3,000	4,020	4,980
UNIVERSITY OF ROCHESTER Rochester, New York	3,600	4,800	5,400
SOUTHERN METHODIST UNIVERSITY Dallas, Texas	3,000	4,080	4,800
SOUTHWEST CENTER FOR ADVANCED STUDIES Dallas, Texas	3,180	4,200	4,980
STANFORD UNIVERSITY Palo Alto, California	3,960	5,520	6,600
TEXAS CHRISTIAN UNIVERSITY Fort Worth, Texas	3,180	4,080	4,800
UNIVERSITY OF TEXAS Austin, Texas	3,000	4,080	4,800
UNIVERSITY OF WISCONSIN Madison, Wisconsin	3,480	4,200	5,400
YALE UNIVERSITY New Haven, Connecticut	3,600	4,800	5,400

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Minimum Annual Living Allowance - \$3,000

Estimated Annual Increase for Each Additional Child - \$600

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Office of Scientific Personnel  
National Research Council  
2101 Constitution Avenue  
Washington, D. C. 20418

January 1968

Atmospheric & Space Sciences - Atmospheric Structures,  
Cosmic Radiation, Ionospheric Physics, Planetary Atmospheres;  
Earth & Planetary Sciences - Geochemistry, Geobiology,  
Geomagnetism, Paleomagnetism, Petrology, Seismology;  
Physics - <sup>Relativity,</sup> Plasma Physics, Reaction Kinetics; Aerospace  
Engineering. Registration for courses will be through Space  
Sciences ~~for~~ Center, Southern Methodist University.

F. S. Johnson

Dufo - and would  
you review and  
suggest any changes  
you think desirable  
Ross

# NATIONAL RESEARCH COUNCIL

NATIONAL ACADEMY OF SCIENCES NATIONAL ACADEMY OF ENGINEERING

2101 CONSTITUTION AVENUE WASHINGTON, D.C. 20418

OFFICE OF SCIENTIFIC PERSONNEL

R.C. Peavey  
Assistant to the President  
Southwest Center for Advanced Studies  
P. O. Box 30365  
Dallas, Texas 75230

4 December 1968

Dear Mr. Peavey:

We are planning to issue a new brochure for the NASA International University Fellowship program, in which we will list the principal fields of space science study and research available at participating universities for graduate and post-doctoral Fellows in 1969-1970.

In the last brochure, the space science offerings at your university were listed as follows:

**SOUTHWEST CENTER FOR ADVANCED STUDIES**  
—Dallas, Texas 75230

Research Projects only: Atmospheric Structure; Cosmic Radiation; Geochemistry; Geochronology; Geomagnetism; Ionospheric Physics; Molecular Biology; Petrology; Planetary Atmospheres; Plasma Physics; Reaction Kinetics; Relativity; Seismology. Registration for courses will be at Southern Methodist University, or at Texas Christian University.

We assume you will want essentially the same listing in the 1969-1970 brochure, and are enclosing an extra copy of this letter, in case you wish to refer the list to your department heads.

Since the brochure is to be sent to foreign sponsoring space science organizations whose Fellowship selection committees meet early in 1969, we would appreciate receiving the listing as you wish it to appear for your university as soon as possible. If the present listing is approved without change, you may so indicate on the copy and return it to us.

Many thanks for your cooperation.

Sincerely yours,

Eugene W. Scott, Director  
International Fellowships

EWS:bps  
enclosure

# INTERNATIONAL UNIVERSITY FELLOWSHIPS IN SPACE SCIENCE

GRADUATE AND POSTDOCTORAL

supported by

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

1968-1969

tenable at

PARTICIPATING UNITED STATES UNIVERSITIES

administered by

Office of Scientific Personnel

NATIONAL RESEARCH COUNCIL

National Academy of Sciences - National Academy of Engineering

2101 Constitution Avenue, Washington, D. C. 20418, USA

## GRADUATE AND POSTDOCTORAL

### NASA International University Fellowships in Space Science

#### GENERAL INFORMATION

The National Aeronautics and Space Administration International University Program in Space Science is a part of NASA's total international cooperative effort. Its purpose is to assist regional and national space research organizations abroad to develop, for their space research programs, scientists and technologists trained in such subjects as astronomy, astrophysics, fields and particles, meteorology, planetary science, plasma physics, solar physics, and space biology, as studied by means of satellites and sounding rockets. To this end, the NASA International University Fellowships provide an opportunity for promising young scientists and engineers to study and participate in research in the space sciences at leading universities in the United States.

#### QUALIFICATIONS OF APPLICANTS

Graduate and Postdoctoral Fellowships in Space Science are open *only to foreign nationals sponsored by their National or Regional Space Research Organizations* or, where such organizations have not been established, by their National Research Council or other appropriate organization.

Applicants are expected to have training equivalent to that represented by an earned Master of Science or Master of Engineering degree awarded by an accredited educational institution in the United States and must meet graduate student entrance requirements at United States universities. A good background in the physical sciences or in engineering should be evidenced, as well as competence in the English language.

#### FELLOWSHIP ACTIVITIES

It is expected that a Fellow will devote full time to theoretical or experimental research and to advanced training in any of the space science fields. Fellows will pursue programs under the supervision and guidance of prime investigators and will be provided the necessary experimental and computing facilities. Listed in this announcement are space science study and research opportunities currently available for NASA Fellows at the participating universities.

#### STIPEND AND GRANT

The National or Regional Space Research Organization or other appropriate sponsoring organization will provide for the travel of the Fellow and accompanying dependents to the United States and return to point of origin. The sponsoring organization will also pay the cost of adequate subsistence for the Fellow and his dependents during the term of his Fellowship in the United States.

The United States National Research Council, which administers the program for NASA, will pay the Fellow's

tuition, academic fees, and appropriate research costs by grant to the University. The administering organization will also pay travel costs within the United States for the Fellow and accompanying dependents to and from his University, and approved scientific visits by the Fellow which are directly related to his Fellowship study and research.

NASA Fellows are not permitted to accept salaried positions or financial support from any other United States source during the term of the Fellowship.

#### CONDITIONS OF APPOINTMENT

Applications should be made to the National Space Research Organization, National Research Council, or appropriate organization of the applicant's country of origin. Applications must be accompanied by a statement of all university training, a statement of previous research, evidence of competence in English, names of references who are acquainted with the applicant's academic and professional experience, and a statement in English outlining the proposed program of study and research.

When nominating the applicant, the sponsoring organization will submit the application with its recommendation to the Office of Scientific Personnel of the United States National Research Council for evaluation. The application may be submitted directly by the sponsoring organization or through a Regional Space Research Organization as appropriate. The sponsoring organization will certify that maintenance and international travel costs for the applicant and any accompanying dependents will be provided as indicated above.

Applications will be received at any time, but should preferably be sent to the National Research Council in Washington not later than the end of March, to allow for correspondence with the universities. It is desirable that programs of study and research coincide with the beginning of the academic year in September.

Fellowship tenure will normally be for twelve months; however, applications for renewal will be considered in the case of original one-year appointments when supported by the applicant's sponsoring organization and the participating university. Tenures of up to two years will be considered.

It is *not* intended that a fellowship lead to employment in the United States; on the contrary, Fellows will be expected to return to their own countries to support space research activities there.

#### APPLICATION FORMS

Requests for application forms or for additional information should be addressed to the Office of Scientific Personnel, National Research Council, 2101 Constitution Avenue, Washington, D. C. 20418, USA; or to the applicant's national or regional sponsoring organization.



# NASA International University Fellowships in Space Science

## FIELDS OF SPACE SCIENCE STUDY AND RESEARCH AT PARTICIPATING UNIVERSITIES

1968 - 1969

### UNIVERSITY OF ALABAMA—

University, Alabama 35486

Applied Mathematics; Biology; Chemistry; Engineering—*Aerospace, Chemical, Civil, Electrical, Engineering Mechanics, Industrial, Mechanical, Metallurgical, Mineral, Nuclear*; Physics.

### UNIVERSITY OF ALABAMA—

Huntsville, Alabama 35807

(Same offerings as at main campus, listed above.)  
Space Science Research: Computer Science; Electromagnetics; Gasdynamics; Operations Research; Re-entry Hypersonics; Space Communications; Structures Sciences.

### UNIVERSITY OF ARIZONA—Tucson, Arizona 85721

Astronomy, including *Lunar and Planetary*; Chemistry; Engineering—*Aerospace, Chemical, Civil, Electrical, Mechanical, Nuclear, Systems*; Engineering Mechanics; Mathematics; Metallurgy; Meteorology; Optical Sciences; Physics.

### CALIFORNIA INSTITUTE OF TECHNOLOGY—

Pasadena, California 91109

Essentially all Biological, Chemical, Geological, Mathematical, and Physical Sciences; and Engineering.

### UNIVERSITY OF CALIFORNIA—

Berkeley, California 94720

Astronomy; Astrophysics; Atmospheric and Space Sciences; Biology; Chemistry; Engineering—*Aeronautical, Chemical, Electrical, Heat-Power Systems, Mechanical, Mineral Technology, Nuclear, Sanitary, Structural*; Exobiology; Genetics; Geology; Geophysics; Mathematics; Molecular Biology; Nutritional Sciences; Physics—*Atomic, Medical, Nuclear, Plasma, Solid State*; Physiology; Satellite Theory; Statistics.

### UNIVERSITY OF CALIFORNIA—

Los Angeles, California 90024

Astronomy; Astrophysics; Biology—*Environmental, Radio, Systems*; Bionics; Data Processing; Engineering—*Cryogenic Systems, Heat to Electricity Conversion, Special Materials*; Geochemistry; Geophysics; Meteorology; Physics—*Cosmic Ray, Planetary, Space*; Space Chemistry.

### UNIVERSITY OF CHICAGO—Chicago, Illinois 60637

Astronomy; Astrophysics; Chemistry; Cosmic Rays; Geochemistry; Geophysics; Information Sciences; Mathematics; Physics.

### UNIVERSITY OF CINCINNATI—

Cincinnati, Ohio 45221

Celestial Mechanics; Experimental Psychology; Heat and Mass Transfer; High Speed Gas Dynamics; Materials Science; Nuclear Science; Solid State Physics; Space Biology and Medicine; Space Dynamics; Structures and Structural Dynamics.

### UNIVERSITY OF COLORADO—

Boulder, Colorado 80301

Aerodynamics; Controlled Theory and Space Mechanics; Dynamic Meteorology; The Ionosphere; Physics—*Low Energy Atomic, Planetary and Interplanetary, Plasma, Solar, Stellar Atmospheres, Upper Atmosphere*; Planetary and Solar Radio Astronomy; Space Perception.

### COLUMBIA UNIVERSITY—

New York, New York 10027

Astrophysics—*Galaxies, Interstellar Medium, Nucleosynthesis, Radio Astronomy, Stellar Structure*; Engineering—*Communications and Radar Systems, Controls and Guidance, Flight Structures, Gas Dynamics, Materials, and Plasma Physics*; Planetary Physics—*General Circulation of the Atmosphere, Magnetosphere and Interplanetary Plasma, Origin of the Solar System, Physics of the Upper Atmosphere, Planetary Bodies and their Atmospheres, Radiative and Convective Transfer*.

### CORNELL UNIVERSITY—Ithaca, New York 14850

Aerodynamics; Applied Mathematics as related to Optimization of Orbits and Information and Control Theory of Space Vehicles; Astrophysics; Cosmology; Gas Dynamics; Kinetic Theory; Magneto-hydrodynamics; Physics, including *Lunar, Planetary, Plasma, and Space*; Radio Astronomy; Stellar Structure.

### HARVARD UNIVERSITY—

Cambridge, Massachusetts 02138

Astronomy; Biology; Chemistry; Engineering; Geophysics; Mathematics; Physics.

### UNIVERSITY OF IOWA—Iowa City, Iowa 52240

Astronomy—*Photometry of Variable Stars*; Aurorae; Geomagnetically Trapped Radiation; Geomagnetism; Physics—*Ionospheric, Interplanetary, Magnetospheric, Plasma, Solar Planetary*; Solar and Galactic Cosmic Rays; Solar X-Rays; Use of Balloons, Rockets, Satellites, Deep Space Probes, and Planetary Probes in Astronomical and Physical Experiments; VLF Radio.

### UNIVERSITY OF MARYLAND—

College Park, Maryland 20742

Astronomy; Astrophysics; Cosmic Rays; General Relativity; Meteorology; Physics—*Atmospheric, Elementary Particles, High Temperature, Nuclear, Planetary, Plasma, Solar, Solid State, Space*; Quantum Electronics; Radio Astronomy.

### MASSACHUSETTS INSTITUTE OF TECHNOLOGY

—Cambridge, Massachusetts 02139

Engineering, including *Space Vehicle Instrumentation*; Industrial Management; Life Sciences, including *Nutrition*; Mathematical Sciences; Physical Sciences; Social Sciences.

### UNIVERSITY OF MASSACHUSETTS—

Amherst, Massachusetts 01003

Astronomy; Astrophysics; Botany; Chemistry; Computer Science; Engineering—*Aerospace, Chemical, Electrical, Mechanical*; Geology; Mathematics; Microbiology; Physics—*Atomic, Gravitational Theory, High Energy, Nuclear, Solar System, Solid State*; Polymer Science and Engineering; Psychology; Statistics; Zoology.

### UNIVERSITY OF MICHIGAN—

Ann Arbor, Michigan 48104

Aeronomy; Astronomy; Astrophysics; Biological and Health Sciences; Chemistry; Cosmic Rays; Engineering—*Aeronautical, Astronautical, Chemical, Electrical, Information and Control, Materials, Mechanical, Metallurgical*,

# **FIELDS OF SPACE SCIENCE STUDY AND RESEARCH AT PARTICIPATING UNIVERSITIES**

(Continued)

*Nuclear; Geology; Magnetohydrodynamics; Mathematics; Meteorology; Oceanography; Physics, including Plasma; Psychology; Radio Astronomy.*

## **UNIVERSITY OF MINNESOTA—**

**Minneapolis, Minnesota 55455**

Aeronautical Engineering; Aerospace Systems; Astrophysics; Physics—*Atmospheric, Cosmic Ray, Plasma.*

## **NEW MEXICO STATE UNIVERSITY—**

**Las Cruces, New Mexico 88001**

Air-Pollution Particle Detection, Sizing, and Measuring; Applied Mathematics—*Computer Science, Statistics*; Applied Mechanics; Applied Work in Antenna Engineering, Sounding Rocketry, and Trajectory Calculations; Astrophysics; Biology—*Stress and Survival in Extreme Environments*; Chemical Reaction Engineering; Chemistry—*High Temperature Thermodynamics, Solid State Spectroscopy*; Electromagnetic Theory; Environmental Contamination and Control; Fluid Mechanics; Gas Dynamics; Heat Transfer (radiative); Optics; Physics—*Atmospheric, Plasma, Solar Energy*; Rocket Simulation on Analog Computer; Space Communication Systems; Structural Design; Structural Mechanics; Tan-lock-loop; Threshold Logic; Video Signal Processing in Low Signal to Noise Environment; Waste Disposal.

## **NEW YORK UNIVERSITY—**

**New York, New York 10453**

Astrophysics; Atmospheric and Space Sciences; Biology; Chemistry; Engineering—*Aeronautical, Astronautical, Chemical, Communications and Data Processing, Electrical, Mechanical, Nuclear, Power*; Gas Dynamics; Mathematics; Mechanics; Metallurgy; Meteorology and Oceanography; Physics—*Atomic, Molecular, Plasma, Planetary, Solid State, Stellar.*

## **OHIO STATE UNIVERSITY—Columbus, Ohio 43210**

Astronomy; Biochemistry; Chemistry; Engineering—*Aeronautical, Astronautical, Ceramic, Electrical, Mechanical, Metallurgical, Nuclear, and Engineering Mechanics*; Geodetic Science; Geology; Microbiology; Mineralogy; Physics; Physiological Chemistry; Physiology; Psychology.

## **PENNSYLVANIA STATE UNIVERSITY—**

**University Park, Pennsylvania 16802**

Aeronomy; Agronomy; Astronomy—*Optical and Radio*; Biophysics; Ceramic Science; Chemistry; Computer Science; Dairy and Food Science; Engineering—including *Aerospace, Chemical, Engineering Mechanics, Mechanical, Nuclear*; Fuel Science; Geochemistry; Geophysics; Human Performance; Low Oxygen Acclimation; Mathematics; Metallurgy; Meteorology; Mineralogy; Physics, including *Field Ion Electron Microscopy, Nuclear, Solid State, Spectroscopy*; Psychology; Solid State Technology; Systems and Controls.

## **UNIVERSITY OF PENNSYLVANIA—**

**Philadelphia, Pennsylvania 19104**

Astronomy, including *Nuclear Astrophysics*; Biology; Chemistry; Engineering—*Biomedical Electronic Engineering, Chemical, Civil, Computers and Information Science, Electrical, Energy Conversion, Mechanical, Metallurgy and Materials Science, Systems*; Geology; Mathematics; Physics—*High Energy and Solid State.*

## **PRINCETON UNIVERSITY—**

**Princeton, New Jersey 08540**

Astronomy; Astrophysics; Biochemistry; Biology; Chem-

istry; Communication and Control; Flight Mechanics; Gas Dynamics; Geophysics; Information Processing; Jet Propulsion; Mathematics; Physics—*Atomic, Molecular, Plasma.*

## **RICE UNIVERSITY—Houston, Texas 77001**

Auroras; Gamma-Ray Astronomy; Geomagnetism; Infra-Red Astronomy; Interplanetary Medium; Solar-Terrestrial Relationships; Stellar Evolution and Astrophysics; Van Allen Radiation and Cosmic Rays.

## **UNIVERSITY OF ROCHESTER—**

**Rochester, New York 14627**

Astronomy; Biochemistry; Biology; Chemistry; Engineering—*Aerospace, Biomedical, Chemical, Electrical, Materials Science, Mechanical, Optics*; Geology; Pharmacology; Physics; Physiology; Psychology; Radiation Biology.

## **SOUTHERN METHODIST UNIVERSITY—**

**Dallas, Texas 75222**

Anthropology; Economics; Engineering—*Electrical, Mechanical*; Geological Sciences—(research projects may also be conducted at the Southwest Center for Advanced Studies); Mathematical and Experimental Statistics.

## **SOUTHWEST CENTER FOR ADVANCED STUDIES**

**—Dallas, Texas 75230**

Research Projects only: Atmospheric Structure; Cosmic Radiation; Geochemistry; Geochronology; Geomagnetism; Ionospheric Physics; Molecular Biology; Petrology; Planetary Atmospheres; Plasma Physics; Reaction Kinetics; Relativity; Seismology. Registration for courses will be at Southern Methodist University, or at Texas Christian University.

## **STANFORD UNIVERSITY—**

**Stanford, California 94305**

Aeronautics and Astronautics; Biology; Exobiology; Physics; Plasma Research; Radio Astronomy; Radio Propagation; Space Science.

## **TEXAS CHRISTIAN UNIVERSITY—**

**Fort Worth, Texas 76129**

Astrophysics; Biochemistry; Earth and Planetary Sciences; Physics—*Materials, Solid State*; Psychology—*Behavioral, Learning, and Perception*; Structural Chemistry. Research projects may also be conducted at the Southwest Center for Advanced Studies.

## **UNIVERSITY OF TEXAS—Austin, Texas 78712**

Astronomy; Engineering—*Aerospace, Chemical, Civil, Electrical*; Physics.

## **UNIVERSITY OF WISCONSIN—**

**Madison, Wisconsin 53706**

Astronomy; Bacteriology; Biochemistry; Botany; Chemistry; Engineering—*Chemical, Electrical, Mechanical, Mechanics, Metallurgical, Mining, Nuclear*; Genetics; Geology; Geophysics; Mathematics; Meteorology; Pathology; Physics; Physiology; Physiological Chemistry; Political Sciences; Psychology; Zoology.

## **YALE UNIVERSITY—**

**New Haven, Connecticut 06520**

Astronomy; Biochemistry; Biology; Chemistry; Engineering and Applied Science; Geology; Geophysics; Mathematics; Microbiology; Molecular Biophysics; Physics; Statistics.

MEMORANDUM

November 7, 1968

TO: Dr. F. S. Johnson

FROM: R. C. Peavey

SUBJECT: NASA International Fellowships in Space Science

The current Head of the Academy office which administers the NASA International Programs is a Dr. W. E. Scott. I talked with his office this morning and they tell me that despite cutbacks in NASA funding, the program is still active and they have over 50 participants from foreign countries engaged in study in the United States.

The present stipend for such fellowships is \$3,000 for twelve months, whether the participant is a postdoctoral or a graduate student. This is augmented by travel and allowances depending upon his marital status and number of children. If the participant is a graduate student, the \$3,000 is intended to include coverage for tuition and other academic fees; otherwise if a postdoctoral it is intended to support his research program. The basic stipend is made to the institution, which is not required to account for the funds, apparently on the premise that \$3,000 is not enough anyway and the institution likely will have to contribute. However, the administering organization is not obligated to meet any payments, even including travel costs within the United States, although it is encouraged to do so in terms of local travel and for participation in scientific meetings.

The Academy is sending me copies of the 1968-69 Announcement.

MEMORANDUM

August 15, 1968

TO: Mr. D. W. Canham

CC: Dr. Johnson  
Dr. Hales  
Mr. Peavey

SUBJECT: NASA Traineeships

Ross has told me of his talk with you about exploring whether our formal Ph. D. program arrangements with SMU might possibly make us eligible now for some of the NASA grant traineeships. I know this is a long shot, but it is worth a discussion the next time you are in Washington, particularly in view of the apparently favorable regard of some of your contacts for our space-oriented research programs.

I know you will keep us informed of any developments.

G. K. Johnson

Note to Frank and Anton:

Such a source is also one of the kind that I had in mind during FY'69 budget discussions in urging that both of you aggressively look for sources of outside student support, and I hope you will seriously think about other similar possibilities. By the way, what thought have you given to my earlier suggestion that you assign one individual in your division the responsibility for working on this problem of student support?

12/23/70  
NASA

Charlotte.

On Wed. Dec. 23, 1970 I received  
from Eugene W. Scott, Director  
International Fellowships the NASA  
Fellowship application of Dr. Gordon L. Wrenn,  
(England) Field Ionospheric Physics.  
Letter was dated Dec 21.

Wrenn has been corresponding  
with Bill Hanson and wants to  
work with him. Hoffmann.

I think the letter came from Hanson.

RUS

## NASA is a hard act to follow

In southern Mississippi, where the National Aeronautics & Space Administration tests the first two stages of the Apollo 13 moon mission's Saturn rocket, a pall of gloom hangs over the lush pine thickets. The Mississippi Test Facility, built in the early 1960s at a cost of \$286.5-million, is scheduled to test a rocket stage for the last time in November. The labor force, which once reached 6,600, has already fallen to 2,100, and it could drop to 200 by next year. And this is only one of a number of such problems NASA faces as its space program winds down.

Worried state and local officials have been beating the bushes in an attempt to find another organization that would fill the vacuum after NASA leaves. Those that have looked at the facility, some 50 mi. northeast of New Orleans, include the Coast Guard, the Environmental Science Services Administration, and the Interior, Commerce, and Transportation departments.

The Coast Guard has already said that it will transfer some of its research work to the Mississippi site. And Dr. Thomas O. Paine, NASA administrator, expects several of the other

**'There is no longer a need to test big liquid rockets'**

organizations to request use of part of the center's vast facilities. Meanwhile, time is running out on the towns of Picayune, Bay St. Louis, and Waveland, Miss.

**Contrast.** The Mississippi site presents special problems. Some scientists and engineers do not consider the surrounding area desirable as a place to live. Moreover, notes Henry F. Auter, deputy manager of the facility, the 13,425-acre site with its 128,526-acre buffer zone was set up for one specific purpose—testing big rocket engines.

Workers who know they will be out of a job by the end of the year have already begun pulling up stakes. And the pinch on nearby towns is sharp. In 1961, when the space agency first started moving into the area, the towns had a combined debt of less than \$100,000. The debt has since risen to more than \$20-million, most of it spent in anticipation of space-age needs.

A. J. (Jack) Reed, mayor of Picayune, has no illusions about what lies in store. He expects to lose 700 to 800

families. And he fears that the resultant loss in tax revenue may force the town to default on its debt.

The area's losses are not only financial. Says Jackson M. Balch, manager of the test facility: "The people who came into the area along with NASA wanted the best in everything, from schools to water supply. They formed social clubs, planning commissions, and moved into the center of community affairs. Now they're leaving and it's bound to create a vacuum. Confusion and resentment are inevitable."

**Seeking solutions.** Some moves are afoot to fill the void. A local group is trying to start a new research organization, to be called Gulf Universities Research Corp. The idea hinges on obtaining support from both the National Science Foundation and the National Academy of Sciences.

Balch favors another plan. He would like President Nixon to set up a national laboratory dedicated to protecting the environment. Both Senators Edmund S. Muskie (D-Me.) and Howard H. Baker, Jr. (R-Tenn.), support the creation of a chain of such environ-

The Administration had to scramble to find a way out of the argument. Late last month it was decided to transfer the lab from NASA to the Transportation Dept.

The Cambridge facility's budget may dip under the new arrangement. But, long range, it could become the center of a major effort to solve airport and mass transit problems.

This possibility has mollified Cambridge officials, who think that the transfer of the lab to the Transportation Dept. "makes a lot of sense." It will, says one of the officials, "offer the city the same kind of benefits, in terms of employment, payroll, and development impact, as the NASA lab offered." And many of the people who work for the space agency should be able to make the switch readily.

**Other woes.** Such neat solutions for the Mississippi site may be impossible to find, however. And the problems of facility closings do not end there. Severe work cutbacks have already been made at the Michoud assembly facility in New Orleans, where the Saturn rockets are made, and at NASA's Hunts-



The Mississippi Test Facility looks for a new tenant as NASA prepares to bow out.

mental centers. Balch claims that the Mississippi site is particularly well suited for such work.

Paine would undoubtedly be receptive to either scheme. He says that he does not intend to see the Mississippi facility put into mothballs. Nor does he want another uproar like the one that occurred in Cambridge, Mass., late last year when it was announced that NASA's Electronics Research Center would close its doors for reasons of economy.

Cambridge officials reacted violently. According to Robert F. Rowland, executive director of the Cambridge Redevelopment Authority, the shutdown order was a breach of contract between NASA and the authority.

ville (Ala.) Marshall Space Flight Center, where the Saturns were developed.

Indeed, the multibillion-dollar launch complex at Cape Kennedy has little work to do except shortly before a manned space launch. "If Congress fully funds the space shuttle and moves ahead with development of a manned space platform, Kennedy could start humming again," says one NASA man.

But the other sites may already be dead as far as their place in NASA's future is concerned. "There is no longer any real need to test big liquid rocket stages," the official adds. "If we ever replace Saturn V, it will probably be with a big solid booster. And that will require an entirely different type of test and production facility."



September 29, 1969

Mr. Graves Landrum  
Vice-Chancellor for Operations  
The University of Texas System  
Austin, Texas 78712

Dear Graves:

I am enclosing the original and one copy each of executed copies  
of the following novation agreements:

Department of Health, Education, and Welfare  
National Aeronautics and Space Administration

The original, I understand, is for Miss Thedford's official Board  
records.

Sincerely,

Ralph N. Stohl  
Vice President

Enclosures

RNS/cb

bcc: Sol Goodell  
Stewart Fallis  
David Canham (w/o enclosures)