

ON ABC: AN IMAGE OF SCIENCE

'I call it the ages of man'

(This Friday at 10:30pm EST, the American Broadcasting Co. will televise over most of its affiliate stations—WCVB Ch. 5 in Boston—the fourth in the MIT-ABC News documentary programs, "What About Tomorrow?" The program this Friday is entitled "Searching the Unknown." It deals with the nature of basic scientific research. ABC Science Editor Jules Bergman interviews seven MIT scientists—Victor Weisskopf, Philip Morrison and Steven Weinberg of the Department of Physics, Hans-Lukas Teuber of the Department of Psychology, and David Baltimore and Jonathan King of the Department of Biology.

(Among those asked to preview the film and advise on its final editing was physicist Martin Deutsch,

newly-appointed director of MIT's Laboratory for Nuclear Science. At Tech Talk's request, Professor Deutsch set down the following thoughts on what he had seen.)

By MARTIN DEUTSCH
Professor of Physics

My friends know how much I dislike the usual popular presentations pretending to convey the "spirit of science." Particularly those on television. They seem obnoxiously patronizing—a kind of intellectual baby talk. Or they turn out to be incomprehensible to the uninitiated. I have tried my hand at it myself and I know such efforts are most often unsuccessful.

It was, therefore, quite without enthusiasm that I went to a preview of "Searching the Unknown," the fourth in the ABC-MIT series called "What About Tomorrow?"

But I was wrong. This one is different. Jules Bergman, the narrator, does catch the spirit for me. Not all of it, of course. No one has done that since Roger Bacon. But enough of it to make the program a joy to watch and hear.

The joy I speak of is the joy of recognition for the professional scientist and—hopefully—the joy of understanding for the non-scientist.

What Bergman does is to eschew all expository structure. He presents basic research simply as a human undertaking.

He brings out one aspect almost always neglected—or suppressed—in most efforts to capture an image of science for the public. Yet it is an essential aspect in the understanding of any endeavor that consumes a lifetime. I call it the ages of man.

"Searching the Unknown" starts with a young biologist, Jonathan King, explaining with a contagious enthusiasm his conviction that he will understand the mysteries of organic growth by studying the length of the tail of bacteriophage virus.

It ends with the physicist Victor Weisskopf—on the threshold of becoming an elder statesman in a field to which he actively contributed for a generation—speculating about the metaphysical implications of the scientific endeavor.

(Continued on page 8)



MIT's men's sailing team, now ranked second in the nation, is off to a great start this spring. Led by skippers Al Spoon and Steve Cucciharo, the team has swept their first two major tests—the Owen Trophy

held in Annapolis, Md., April 7, and the Boston Dinghy Club Regatta, held on the Charles March 31 and April 1. Here team members practice on the choppy Charles under scudding April skies.

Feshbach to Head Physics Department

Professor Herman Feshbach, director of the Center for Theoretical Physics since 1967, has been appointed head of the Department of Physics at MIT, effective July 1.

He will succeed Institute Professor Victor F. Weisskopf, who has asked to be relieved of the post in order to spend the remaining year before his retirement in teaching and research.

In announcing the appointment, Dr. Robert A. Albery, Dean of the School of Science said:

"We are grateful to Dr. Weisskopf for his distinguished leadership of the department since 1967 and look forward to his continued support as an Institute Professor. Dr. Feshbach's broad experience in directing the Center for Theoretical Physics will be invaluable to him in maintaining MIT's physics department as one of the strongest in the world."

A native of New York City, Professor Feshbach received the S.B. degree from the College of the City of New York in 1937 and the Ph.D. degree in 1942 from MIT.



Professor Feshbach

He became an instructor in physics at MIT in 1941 and was appointed to the faculty as an assistant professor in 1945. He was promoted associate professor in 1947 and to the rank of professor in 1955.

Dr. Feshbach has served on a number of government committees. He has been a member of the executive committee of the Division of Nuclear Physics of the American Physical Society, and is chairman of two subcommittees—Nuclear Structure, and Nuclear Data Compilation—of the National Research Council.

He has also served as a consultant to the Brookhaven National Laboratory, Los Alamos Scientific Laboratory and Oak Ridge National Laboratory.

Dr. Feshbach is the co-author, with Dr. P. M. Morse of *Methods of Theoretical Physics*, a basic text in the field, and, with A. deShalit, of the forthcoming text, *Fundamentals of Nuclear Theory*. He is also editor of "Computer Physics Communications" and associate

(Continued on page 8)

HEW DEADLINE MAY 1

Revised Plans Asked On Affirmative Action

The heads and directors of MIT's more than 90 academic and administrative departments, offices and laboratories were asked to submit by April 25 revised Affirmative Action Plans covering equal opportunities for women and minorities with departmental goals through mid-1975.

In a memorandum to all heads and directors, Chancellor Paul E. Gray said the Institute's new overall Summary Affirmative Action Plan was submitted to the Department of Health, Education and Welfare last week. (The full plan appears elsewhere in this issue of *Tech Talk*.)

Dr. Gray said HEW has certified MIT—as a federal contractor—to be in compliance with federal regulations regarding equal employment opportunity. But, he said, in order for the Institute to retain that status, new individual Affirmation Action Plans from each of the Institute's departmental units must be filed with HEW no later than May 1. The revised departmental plans must cover the period through 1974-75.

Dr. Gray asked the heads and directors to submit their plans via their respective senior officers (Provost, deans, vice presidents, etc.) by April 25 to provide for a period of review and, if necessary, revisions, before the HEW deadline is reached.

Dr. Gray said the deadline for annual revisions of individual department plans would have been July 1, but when a five-day period of uncertainty as to MIT's compliance status developed in late March, the date was moved up under an agreement with HEW aimed at making the Institute's compliance formal and definite.

Dr. Gray said MIT had been working on its new Summary Affirmative Action Plan since late last summer and that drafts had been on file with the Boston Office of HEW's Civil Rights Division for some time.

Revised orders covering equal opportunity issued last January, however, specified that a federal contractor would be held in non-compliance if a final plan were not on file.

Uncertainty as to MIT's tech-

(Continued on page 8)

Engineering Job Trend Is Upward

All signs point to a resurgence of job opportunities this year for newly graduated engineers and scientists with specialties related to engineering.

Graduates in these categories, along with persons trained in health care, are in greatest demand in a job market for college and university graduates that is the best in four years in most fields, according to the Carnegie Commission on Higher Education.

The findings are contained in the commission's 331-page report, "Graduates and Jobs: Adjusting to a New Labor Market Situation." They confirm a trend that has become apparent to Robert K. Weatherall, the director of placement at MIT.

"The enrollment in engineering studies throughout the nation had been running at a rather low level," Weatherall said. "It was obvious that as soon as the economy picked up again, a shortage of engineers would be felt."

The Carnegie Commission gave a similar assessment of the situation.

The upturn in demand for newly trained engineers, it said, was closely tied to two factors:

—An improved national economic picture.

—A decrease in the number of available young engineers because of students who avoided engineering studies during the recession of the past several years,

(Continued on page 3)



Baggeroer



Becker



Bender



Blanken



Boolos



Botstein



Braida



Brody



Busza



Colton



Davies



Feld



Graves



Green



Kaufman



Keeney



Kong



Merton



Naylor



Oliver



Price



Rappaport



Shank



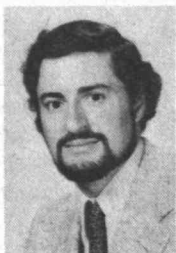
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Southard



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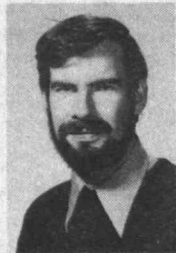
Vanmarcke



Welsch



Wertz



Wilson



Winston



Young

33 Named Associate Professors

Thirty-three members of the MIT teaching staff have been promoted to the rank of associate professor effective July 1.

The newly-appointed associate professors are:

Jonathan W. Green of the Department of Architecture. A teacher of photography at MIT since 1969, Professor Green was graduated from Brandeis University in 1963 and received the M.S. from Harvard University in 1966. He lives in Lincoln.

Arthur P. Solomon of the Department of Urban Studies and Planning. Associate Director of the Joint Center For Urban Studies at MIT, Professor Solomon has taught at MIT since 1971. A 1961 graduate of Brown University, he received the M.A. from Trinity College in 1968 and the Ph.D. degree from Harvard University in 1971. He lives in Lincoln.

David A. Oliver of the Department of Aeronautics and Astronautics. A graduate of the University of Santa Clara, Professor Oliver received both his M.S.M.E. and Ph.D. from Stanford University. He has been teaching at MIT since 1968. He lives in Lexington.

Clark K. Colton of the Department of Chemical Engineering. A member of the MIT teaching staff since 1969, Professor Colton received the B.Ch.E. from Cornell University in 1964 and the Ph.D. from MIT in 1969. He lives in Brookline.

Jacques N. Sultan of the Civil Engineering Department. A 1966 graduate of Ecole Centrale des Arts et Manufactures in Paris, Professor Sultan also received the M.S. from MIT in 1967 and the Ph.D. degree from MIT in 1969. He has been on the MIT teaching staff since 1969. He lives in Cambridge.

Erik H. Vanmarcke of the Civil Engineering Department. A graduate of the University of Louvain, Belgium, Professor Vanmarcke received the M.S. in 1967 from the University of Delaware and the Ph.D. in 1970 from MIT. He began teaching at MIT in 1969. He lives in Wayland.

Nigel H.M. Wilson of the Civil Engineering Department. Professor Wilson has taught at MIT since 1969. A 1965 graduate of Imperial College of the University of Lon-

don, he received the S.M. in 1967 and the Ph.D. in 1970, both from MIT. He lives in Brighton.

Arthur B. Baggeroer of the Department of Electrical Engineering. An MIT teacher since 1968, Professor Baggeroer was graduated from Purdue University in 1963 and received the S.M.E.E. in 1965 and the Sc.D. in 1968, both from MIT. He lives in Westwood.

Louis B.D. Braida of the Department of Electrical Engineering. A member of the MIT teaching staff since 1969, Professor Braida was graduated from Cooper Union in 1964 and received the S.M. in 1965 and the Ph.D. in 1969, both from MIT. He makes his home in Cambridge.

Jin-Au Kong of the Department of Electrical Engineering. An MIT teacher since 1969, Professor Kong received his Ph.D. degree from Syracuse University in 1968. He lives in Cambridge.

Patrick H. Winston of the Department of Electrical Engineering. Professor Winston received the B.S. in 1965, the M.S. in 1967 and the Ph.D. in 1970, all from MIT. He became a member of the MIT teaching staff in 1970. He lives in Concord.

Ian T. Young of the Department of Electrical Engineering. Professor Young received the S.B. in 1966, the S.M. in 1966 and the Ph.D. in 1969, all from MIT. He has been teaching at MIT since 1969. He lives in Lexington.

Huw G. Davies of the Department of Mechanical Engineering. He received the A.R.C.S. in 1964 from Imperial College in London, the B.Sc. in 1964 from London University, the D.L.C. in 1967 from Imperial College, and the Ph.D. in 1967 from London University. Professor Davies began teaching at MIT in 1969. He lives in Lincoln.

Roger E. Kaufman of the Department of Mechanical Engineering. A 1962 graduate of Tufts College, Professor Kaufman received the M.F.A. from Yale University in 1965, the M.E. in 1968 and the Ph.D. in 1969, both from the Rensselaer Polytechnic Institute. He has taught at MIT since 1969. He lives in Newton.

Ronald A. Blanken of the Department of Nuclear Engineering. A member of the MIT faculty since

1969, Professor Blanken received the B.S. from Trinity College in 1961, the M.A. from Dartmouth College in 1963 and the Ph.D. from Princeton University in 1967. He lives in Cambridge.

Richard W. Wertz of the Department of Humanities. Professor Wertz has taught history at MIT since 1967. He received his B.A. in 1955 and his B.D. in 1958, both from Yale University, and the Ph.D. degree in 1967 from Harvard University. He lives in Boston.

George S. Boolos of the Department of Philosophy. A member of the MIT faculty since 1969, Professor Boolos received the A.B. in 1961 from Princeton University, the B.Phil. in 1963 from Oxford University, the Ph.D. in 1966 from MIT. He lives in Cambridge.

Boruch A. Brody of the Department of Philosophy. A 1962 graduate of Brooklyn College, Professor Brody received the M.A. in 1965 and the Ph.D. in 1967, both from Princeton University. He began teaching at MIT in 1967. He lives in Brookline.

John C. Graves of the Department of Philosophy. A member of the MIT teaching staff since 1968, Professor Graves received the A.B. in 1960, the A.M. in 1962 and the Ph.D. in 1969, all from Princeton University. He lives in Cambridge.

David Botstein of the Department of Biology. A graduate of Harvard University in 1963, Professor Botstein received his Ph.D. from the University of Michigan in 1967. He joined the teaching staff at MIT in 1969. He lives in Brookline.

K. Barry Sharpless of the Department of Chemistry. A graduate of Dartmouth College in 1963, Professor Sharpless received the Ph.D. degree from Stanford University in 1968. He joined the MIT teaching staff in 1970. He lives in Cambridge.

John B. Southard of the Department of Earth and Planetary Sciences. Professor Southard has taught geology at MIT since 1967. A graduate of MIT in 1960, he received the Ph.D. degree from Harvard in 1966. He lives in Cambridge.

Richard S. Naylor of the Department of Earth and Planetary Sciences. A graduate of MIT in

1961, he received his Ph.D. from California Institute of Technology. He has taught geology at MIT since 1967. Professor Naylor lives in Cambridge.

Carl M. Bender of the Department of Mathematics. A member of the MIT teaching staff since 1970, he received the A.B. in 1964 from Cornell University and the A.M. in 1965 and the Ph.D. in 1969, both from Harvard University. Professor Bender lives in Watertown.

Ronald C. Shank of the Department of Nutrition and Food Science. He has taught food toxicology at MIT since 1967. Professor Shank has received the S.B. in 1959, the S.M. in 1961 and the Ph.D. in 1965, all from MIT. He lives in South Acton.

Ulrich J. Becker of the Department of Physics. Professor Becker received the Vordiplom from Philippsuniversitaet in Marburg, Germany, in 1960, and the Diplom in 1964 and the Ph.D. in 1968, both from the University of Hamburg. He came to MIT as a visiting assistant professor in 1970. He resides in Arlington.

Wit Busza of the Department of Physics. A member of the MIT teaching staff since 1969, Professor Busza received the B.Sc. from the University of London and the Ph.D. degree from University College in London. He lives in Weston.

Michael S. Feld of the Department of Physics. Professor Feld was graduated in 1963 and received the S.M. in 1963 and the Ph.D. in 1967, all from MIT. He joined the MIT teaching staff in 1968. He lives in Newton.

Richard M. Price of the Department of Physics. A 1961 graduate of Colorado State University, he received the Ph.D. degree from the Australian National University in 1966. Professor Price joined the MIT teaching staff in 1967. He lives in Cambridge.

Saul A. Rappaport of the Department of Physics. An MIT teacher since 1969, Professor Rappaport graduated from Temple University in 1963 and received the Ph.D. degree from MIT in 1968. He lives in Melrose.

Roy E. Welsch of the Sloan School of Management. An MIT

teacher in operations research since 1969, he received the A.B. in 1965 from Princeton University and the M.S. in 1966 and the Ph.D. in 1969, both from Stanford University. Professor Welsch lives in Cambridge.

Ralph L. Keeney of the Sloan School of Management. He has taught operations research at MIT since 1969. Professor Keeney received the B.S. in 1966 from the University of California at Los Angeles and the S.M. in 1967, the E.E. in 1968, and the Ph.D. in 1969, all from MIT. He lives in Cambridge.

Robert C. Merton of the Sloan School of Management. A teacher of finance at MIT since 1970, he received the B.S. in 1966 from Columbia University, the M.S. in 1967 from California Institute of Technology, and the Ph.D. in 1970 from MIT. Professor Merton lives in Cambridge.

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Demand for Young Engineers Leads New Labor Market

(Continued from page 1)

when there was less demand for their talents.

The opportunities for new engineering graduates are taking place despite continued unemployment among older, more experienced aerospace engineers, the commission explained, because the younger men and women can be hired at lower salaries.

The improved job market should bring about an increase in the national percentage of undergraduates majoring in science and technology, reversing a trend that began more than ten years ago,

Weatherall said.

As the result of the publicity being given the employment market, he said, it is becoming clear to prospective students that "engineering is one of the very best fields to be in, while in terms of employability, the liberal arts are among the very worst."

Weatherall said that the fall-off of science and technology majors in the nation goes back to the early 1960's, although it was accelerated in recent years.

The enrollment of these students had been at its peak during the Korean War years in the 1950's, he said, and by 1959-1960—just after Sputnik—it was still at 23 percent

of all US undergraduates.

But by 1963-1964, he said, only 20.3 percent of undergraduates were majoring in science and technology.

This was opposite to the experience of other major industrial nations, such as Britain and Germany, which saw student enrollment in these fields jump several percentage points in the same years.

"There was a decreasing percentage through the sixties of American students choosing engineering," Weatherall said, "although their numbers rose somewhat as the numbers of students rose."

"Here we were famous throughout the world for our technology, and were in fact seeing a declining percentage of our young people in science and technology," he said.

"You would have thought that during the boom years of the space race there would have been a mad scramble of students into engineering, but there wasn't. Apparently other fields, in terms of career and pay, were more attractive. It was also a boom period in the stock market, government, law, medicine and school teaching—so engineering faced a lot of competition from other professions, and on the whole, lost out."

One result, Weatherall said, was

that United States companies had to recruit engineers from abroad and from among foreign students studying in this country, creating the so-called "brain drain" in Britain and other nations.

The apparent turnabout in job opportunities, and the expected resultant increase in enrollment nationally in engineering studies, is a hopeful sign, Weatherall said.

But he said there was still reason for concern about the United States losing its technological leadership.

"The Japanese and Germans, for example, are drawing ahead of us," he said. "Where is American technology? The situation may well become, and should become, a national concern."

Weatherall noted that the improving employment picture in science and technology has some flaws in it.

A major one, he said, affects Ph.D.'s in fields that are essentially academic in their research orientation, where employment would be in the universities because their work does not have direct industrial application.

"Some of these people will not find opportunities," he said, "because of a lack of post-doctoral traineeships and the shortage of academic posts."

A graduate whose work has been in applied mathematics is far better off, for example, he said, than one who has concentrated on pure mathematics.

"I know of a Ph.D. in inorganic chemistry who is thinking of getting a degree in pharmacy to tide him over," Weatherall said.

A major conclusion of the Carnegie Commission, which reviewed the job market for American college graduates from 1900 to 1970, was that a college degree can no longer be considered a sure ticket to a good job.

By 1975, the commission said, there will be more college graduates than will be needed. But this will not necessarily mean that college graduates will be unemployed, the commission said, but that there may be "underemployment of the college-educated person."

Despite these uncertainties, the commission made a strong argument for the continuing value of a college degree. It is still good, it said, for a 10 percent return in increased yearly salary on the dollar cost of a college education.

Robert Coles To Give Talk

Dr. Robert Coles, noted research psychiatrist at Harvard University, will present the first lecture in a series on aspects of developmental psychology related to education on Thursday, April 12, at 8pm in Kresge Auditorium.

Based on his present research in New Mexico, Dr. Coles' topic will be, "The Bilingual Education in the Southwest." The lecture series is sponsored by the MIT Student Committee on Educational Policy and the MIT Education Division Steering Committee. Two more lectures are planned for later this term.

A specialist in the field of child psychology, Dr. Coles received the A.B. degree from Harvard in 1950 and the M.D. degree from Columbia University College of Physicians and Surgeons in 1954.

Among the books he has authored are *Children of Crisis*, *Deadend School* and *Hunger and the Dimness of Anguish*.

AID TO COMMUNITY PROJECTS

Service Fund to Open Campaign

The MIT Community Service Fund (CSF) will open its annual fund raising campaign next week, Professor Anthony French, co-chairman of the CSF Board of Trustees, has announced.

CSF was established five years

ago as a means of providing support to a number of local activities which enrich the community. The Fund was created in part to meet expressed desires of MIT students to engage in volunteer activities which enhance

their educational experience while augmenting needed social services.

CSF is administered by a board of trustees broadly representative of the Institute community, including students, employees, staff and faculty members, alumni and members of the Corporation.

The Fund has allocated an average of \$58,000 annually during the past five years to support activities which include educational programs, prison reform and neighborhood improvement.

The fund was started by a \$50,000 grant from the Institute. Since then, contributions from members of the community, the Corporation and alumni have provided more than half—over \$34,000 annually—of the Fund's support. Special gifts from foundations, such as the Charles E. Merrill Trust and the Richard K. Mellon Charitable Trust, among others, have made up the remainder.

This year, according to Professor French, prospects are slim that the Fund will receive special gifts. The need for generous and broad-based personal contributions is therefore more critical than in the past, he said.

Some agencies supported by the Fund, such as the Roxbury Photographer's Program, have become self-supporting. Some, such as the Education Warehouse, are heavily federally funded but depend upon contributions from CSF to alleviate restrictions imposed by federal contracts.

Others, such as Tutoring Plus in nearby Neighborhood Four and MIT's own Urban Action Volunteer and Resource Center, depend on CSF for major support. Tutoring Plus received \$25,000 and Urban Action received \$11,000 from the Fund this year. Professor French stressed that these allocations may have to be curtailed unless personal contributions to the Fund grow appreciably.

Scrimshaw To Lecture

Health Problems and Programs in North Vietnam will be the topic of Dr. Nevin S. Scrimshaw's second Killian Award Lecture to be given in Room 54-100 at 4:15pm Thursday, April 12.

Dr. Scrimshaw, head of the Department of Nutrition and Food Science, recently returned from a trip to North Vietnam as a consultant to the US Senate Subcommittee on Refugees.



Mr. Beckley

Space Center Names Beckley To New Post

Lawrence E. Beckley, administrative officer of the Center for Space Research since 1963, has been appointed to the newly-created post of assistant director of the Center.

Announcement of Beckley's appointment was made by Dr. John V. Harrington, director of the Center for Space Research.

In the new post, Mr. Beckley, whose career at MIT spans nearly 31 years, will be responsible for all administrative matters within the Center.

After receiving the S.B. degree from MIT in aeronautical engineering in 1942, Mr. Beckley joined the research staff of the Aeroelastic Laboratory. He was on military leave with the US Navy from 1943 to 1946, but returned to the Institute as project manager and then manager of the Aeroelastic and Structures Research Laboratory.

Mr. Beckley later served as assistant and assistant director of the Division of Industrial Cooperation, now the Division of Sponsored Research. In 1956 he was named associate director for administration at MIT's Instrumentation Laboratory, now the Charles S. Draper Laboratory.

In 1961 the newly organized Aerospace Research Division in the Department of Aeronautics and Astronautics appointed Beckley executive officer.

Beckley is an associate fellow of the Institute of Aerospace Sciences and a member of Sigma Xi. He and his wife have four daughters and reside at 5 Marshall Road, Winchester.

2 MIT Delegates Attend Federal Design Assembly

Jacqueline Casey, director of MIT's Design Services, and Muriel Cooper, Media Director and Editorial Associate of the MIT Press, joined leading designers and government administrators last week in Washington, D.C. for the First Federal Design Assembly.

The assembly, which was sponsored by the Federal Council on the Arts and Humanities under a grant from the National Endowment for the Arts, is part of the Federal government's efforts to upgrade all aspects of our visible environment.

In May 1972, President Nixon asked the Federal Council for the Arts and Humanities to sponsor an annual design assembly for government administrators and artists, and he asked the National Endowment to establish a committee to review and expand a 1962 publication, entitled *Guiding Principles for Federal Architecture*, and to set up a program for including art works in new Federal buildings. In addition, Mr. Nixon asked the National Endowment to coordinate the efforts of executive agencies in upgrading their graphics and he asked the Civil Service Commission to review existing procedures for em-

ploying artists, architects and designers for Federal services.

The recent two-day assembly was a general meeting which brought together design experts and government administrators. In conjunction with the assembly, the National Endowment for the Arts is working with government officials and designers to coordinate efforts to improve government graphics. Mrs. Casey is currently evaluating the graphics of the US Department of Labor.

The Design Necessity, A Casebook of Federally Initiated Projects in Visual Communication, Interiors and Industrial Design, Architecture, Landscaped Environment, published by the MIT press, uses a number of projects as illustrations of design principles and their implementation as a departure point for further study and development. It was distributed at the assembly and was also exhibited there.

"The case book is another reflection of the MIT Press' diverse publishing program in the architectural, urban, visual, graphic, art and environmental design concepts, performance and history, and the Press' own graphic standards," according to Miss Cooper.



Black alumni returned to MIT last Saturday to meet with black undergraduate students at the Conference on Black Science and Technology. The day-long conference provided an opportunity for black undergraduates to discuss their problems and career goals with a large number of their predecessors. Shown here during a break in the program are James J. Bishop (left) assistant dean for student affairs and Professor James Turner of Southern University.

THE INSTITUTE CALENDAR

April 11
through
April 20

The Institute will be closed on Monday, April 16 in observance of the Patriots Day holiday.

Events of Special Interest

Rain—The MIT Literary Magazine

The MIT Literary Society will be selling the Spring '73 issue of *Rain* thru Apr 13, Building 10 Lobby.

Chemical Engineering Open-House

Informal meeting and discussion with members of the Ch. Eng. faculty and students for freshmen and undesignated sophomores interested in careers and programs in this field. Wed, Apr 11, 7:30pm, Rm 12-124. Refreshments.

Electrical Engineering Open-House

Informal meeting and discussion with members of the Electrical Engineering faculty for freshmen and undesignated sophomores interested in careers and programs in this field. Wed, Apr 11, 7:30pm, Rm 9-150. Refreshments.

Mechanical Engineering Open-House

Informal meeting organized by ME majors for freshmen and undesignated sophomores interested in careers and programs in this field. Thurs, Apr 12, 3pm, Rm 3-143. Refreshments.

Advisory Committee on Shareholder Responsibility

Thurs, Apr 12, 5pm, Rm 10-300.

African Night

Evening of African Arts with: The G. Howard African Dance Company; a film of the 1966 African Art Festival and an exhibit of African art. Gourmet African dishes. Sat, Apr 14, 8pm, Kresge. Admission: \$2; \$1 with MIT/Wellesley ID.

White Elephant Sale

Sponsored by Cambridge Business and Professional Women's Club to benefit the Olive Libitz Memorial Scholarship Fund. Wed, Apr 18, 10am to 2pm, Rm 10-105.

Poetry Reading by Kathleen Fraser

Council for the Arts Visiting Poets Series presents Kathleen Fraser, San Francisco poetess and author of *In Defiance of the Rain* and *Little Notes to You*. Wed, Apr 18, 7:30pm, Rm 14E-304.

Seminars and Lectures

Wednesday, April 11

Topics in Optimization Theory and Partial Differential Equations, II
Prof. J. L. Lions, University of Paris VI. Decision and Control Sciences Group and Mathematics Seminar. 10:30am, Rm 9-150.

Hadron Structure and Weak Interactions in a Gauge Model

Prof. M. A. B. Beg, Rockefeller University. Joint Theoretical Seminar. 4pm, CTP Seminar Room. Coffee, 3:30pm.

Technical Issues Developed during the AEC Emergency Core Cooling System Hearing

Dr. William Hinkle, Yankee Atomic Electric Company. Nuclear Engineering Seminar. 3:30pm, Rm NW12-222. Coffee, 3pm.

Traffic Assignment Models

Prof. Stella Dafermos, Brown. Operations Research Center Seminar. 4pm, Rm 24-307. Coffee.

Wind Erosion, Layered Deposits and Frost Phenomena in the Martian Polar Regions

Dr. James Cutts, Jet Propulsion Lab, Pasadena. Earth and Planetary Sciences Colloquium. 4pm, Rm 54-100.

Thursday, April 12

Control and Diagnosis of Manufacturing Systems

Prof. Albert L. Hopkins, aero/astro. Production, Automation and Manufacturing Seminar. 4pm, Rm 37-212.

The Importance of Grain Boundary Diffusion in Ceramics

Prof. B. J. Wuensch, MIT. Ceramic Seminar Series. 4pm, Rm 31-161. Coffee, 3:40pm.

Speciation of Trace Metals in Natural Waters: Electrochemical and Numerical Methods

John C. Westall, MIT. Analytical Chemistry Seminar. 4pm, Rm 8-105.

Physics in Industry, Neurophysiology, and Ben Franklin

Dr. Charles P. Bean, GE Research Lab. Physics Seminar. 4:30pm, Rm 26-100. Coffee, 4pm, Rm 26-110.

Health Problems and Programs in North Vietnam

Dr. Nevin S. Scrimshaw, nutrition and food science. Killian Award Lecture, II. 4:15pm, Rm 54-100.

Recent Progress in the Unified Field Theory of Elementary Particles

Prof. Werner Heisenberg, physics, Max-Planck Physics Institute, Munich. Physics Colloquium. 4:30pm, Rm 26-100. Coffee, 4pm, Rm 26-110.

Tax Incentives for Investment

Prof. Robert Eisner, economics, Northwestern. Graduate Economics Association Seminar. 4:30pm, Sloan Penthouse.

Development of Industrial-Academic Cooperation in India

Prof. Vivian E. Johnson, chemical engineering, MIT. Sangam Lecture Series on India. 6pm, Rm 16-134.

Nutrition Technology in the Third World

Dr. James Levinson, CIS, and Dr. James Austin, Harvard Business School. Seminar on Technical Transfers and Social Change in the Third World. 6pm, Rm 10-280. Foreign students particularly welcome.

Comedy and Reality

Richard Leacock, visiting professor, cinema. Art History Seminar Series on the Surreal. 7:30pm, Rm 9-150.

The Bilingual Education in the Southwest

Dr. Robert Coles, research psychiatrist, Harvard. Student Committee on Educational Policy and Education Division Steering Committee Seminar. 8pm, Kresge.

Semiconductor Devices—Where Are We Going?

Dr. Robert N. Noyce, director, Intel Corporation. Electrical Engineering Colloquium. 8pm, Rm 9-150.

What is Settled in Vietnam?*

Panel discussion with Stanley Hoffmann, chairman; Frances Fitzgerald, author of *Fire in the Lake*; Richard Holbrooke, managing editor of *Foreign Policy* and Prof. Ithiel Pool, department of political science, MIT. Jodidi Forum. 8pm, Burr B, Harvard.

Friday, April 13

Maxwell-Bloch Equations and Superradiance

Prof. Charles R. Willis, physics, BU. Quantum Electronics Seminar. 1:30pm, Rm 3-133.

Quasi-Classical Diffusion in Mirrors and Tokamaks

Dr. J. D. Callen, Oak Ridge National Research Lab. Plasma Dynamics Seminar. 4pm, Rm 26-214.

Rayleigh Scattering in Simple Gels

Drs. Toyochi Tanaka and Lon Hoeker. Materials Science. Colloquium. 4pm, Rm 9-150. Coffee, 3:30pm.

Saturday, April 14

Making Virtual Memory Systems Work for You

Prof. Peter Denning, computers, Purdue, and others. MIT SIPP & MIT ACM Seminar. 9am-5pm, Rm 26-100. Admission \$3. Pre-registration, 3pm-12pm, Rm 39-200.

Monday, April 16

Feasts of Unreason: Logic and Anti-Logic in Poetry

Barry E. Spacks, humanities, MIT. Art History Seminar. 7:30pm, Rm 9-150.

Tuesday, April 17

A Recursive Procedure for Establishing Formal Outer Solutions for a Class of Singularly Perturbed Nonlinear Optimal Control Problems
Prof. Marvin I. Freedman, mathematics, BU. Decision and Control Sciences Group Seminar. 4pm, Rm 37-212.

Wednesday, April 18

School for Thinking*

Dr. Hans Furth, Piagetian scholar and psychologist, Catholic University of America. Education Division Colloquium. 12n, Rm 9-150.

Solar-Climatic Relationships Applied to Climatic-Range Forecasting

Prof. Hurd C. Willett, meteorology, MIT. Meteorology Seminar. 4pm, Rm 54-311. Coffee, 3:30pm, Rm 54-923.

Thursday, April 19

Condensed Matter Studies Using an Electron Linear Accelerator

Dr. Motoharu Kimura, Tohoku University. Nuclear Engineering Seminar. 10am, Rm NW12-222. Coffee.

Education and Librarianship

Elizabeth Yeates, Dr. Myer Kessler and Dr. Thomas Galvin. Library Staff Association Lecture. 3pm, Rm 37-252. Coffee.

Some Aspects of Pulsed Neutron Sources and their Potential

Dr. Motoharu Kimura, Tohoku University. Nuclear Engineering Seminar. 3:30pm, Rm NW12-222. Coffee, 3pm.

Dislocation Motion and Strain Hardening in NaCl

Prof. A. S. Argon, MIT. Ceramic Seminar Series. 4pm, Rm 31-161. Coffee, 3:40pm.

Technology Studies Workshop

Open discussion: "Philosophical and Moral Problems Raised by the New Biology." Dr. Leon J. Kass, speaker. Commentators: Prof. Elting Morison, 1926 Killian Professor and Prof. Maurice S. Fox, biology. 4pm, Rm 14E-304. Coffee, 3:45pm.

What's Wrong with the Boltzmann H Theorem

Prof. Joseph H. Keenan, mechanical engineering, MIT. Thermodynamics Seminar. 4pm, Rm 3-343. Coffee.

Surrealism and Documentary Film: Franju's *Blood of the Beasts*

Miles Morgan, philosophy and political science. Art History Seminar. 7:30pm, Rm 9-150.

Friday, April 20

Forum on the Multinational Corporation

Prof. Stephen Hymer, economics, New School for Social Research; Prof. Charles Kindleberger, economics, MIT; Prof. Robert Stobaugh, business administration, Harvard Business School; Prof. Melville Watkins, political economy, University of Toronto. Graduate Economics Association Seminar. 2pm, Rm 54-100.

Nuclear Engineering 22.911/22.912 Doctoral Seminars

R. Eng. "Short Term Power System Analysis;" A. Hanson, "Coolant Mixing in Wire-Wrapped Rod Bundles." 3-5pm, Rm NW12-222.

Radiation Damage of Materials for Fission and Fusion Reactors

Prof. Arden L. Bement, nuclear materials, MIT. Mechanical Engineering Seminar. 3pm, Rm 3-270. Coffee, 4pm, Rm 1-114.

The Superfluid Transition and Phase Separation in Liquid He³-He Solutions

Prof. Horst Meyer, Duke. Materials Science Colloquium. 4pm, Rm 9-150. Coffee, 3:30pm.

Community Meetings

Graduate Student Council

Meeting. Wed, Apr 11, 5:30pm, Walker Dining Room.

Student Committee on Educational Policy Election Meeting

Freshman pass/fail and year round operations to be discussed. Wed, Apr 11, 8:30pm, Stu Ctr West Lge.

MIT Club of Boston

Dr. Irving M. London, director, Harvard-MIT Program in Health Science and Technology, will discuss "Health Care." Thurs, Apr 12, 12n, Aquarium Restaurant, 100 Atlantic Ave, Boston. Lunch \$3.60 at door. Reservations: Mrs. Crossley, X3-3878.

MIT Club Notes and Meetings

Bridge Club

ACBL Duplicate Bridge. Thurs, 7pm, Student Center Rm 491. No card fees if under 5 tables.

Chess Club

Sat and Sun, 1:30-5:30pm, Student Center Rm 473.

Classical Guitar Society

Classes, group or private. Mon & Thurs, 5-8pm, Rm 1-132, 134, 136; Sat, 8am-12n, Rm 5-231, 232. Vo Ta Han, 494-8353.

Ergo

Staff meeting. Sun, 7pm, Student Center Rm 443.

Graduate Student Council

General meeting, Wed, Apr 11, 5:30pm, Walker Dining Room.

Hobby Shop**

Mon-Fri, 10am-6pm, Rm W31-031. Fees: \$6/term for students \$10/term for community. Call X3-4343.

Judo Club**

H. Yanagi, 5th degree black belt, chief instructor. Mon, Wed, Fri, 5-6:30pm; Sat, 1-3pm; duPont Exercise Rm. M. Portnoff, X3-5954.

Karate Club**

Beginner and intermediate classes in Goju style. Mon and Wed, 7:30pm, duPont T-Club Lounge. Call X3-2018.

Kung Fu Club**

Northern Praying Mantis. Tues, Thurs, 7-9pm, T-Club Lounge. H.C. Wong, 876-5071.

MIT Wheelmen**

All aspects of bicycles and bicycling discussed, events planned, advice and help given. Thurs, 7:30pm, Rm 1-246. Call Harry X2384 Dorm.

MIT/DL Duplicate Bridge Club**

Tues, 6pm, Student Center Rm 473.

Rugby Club**

Practice sessions; Tues, Thurs, 5pm, Briggs Field; Sat, 1pm, meet at DuPont Gym.

Student Homophile League*

Meeting and coffee hour. Sun, 4-6pm, Rm 14E-307. All men and women welcome. For gay help (anonymous) at MIT, call student gay tutor, 492-7871, anytime.

Science Fiction Society*

Fri, 5pm, Rm 1-236.

Scuba Club

Election meeting. Wed, Apr 11, 8pm, Rm 20E-017.

Strategic Games Society

Sat, 1pm, Walker Rm 318. Club offers opponents and discounts on merchandise to members plus gaming periodicals library. Kevin Slimak, X0389 Dorm.

Student Information Processing Board Meeting*

Mon, 7:30pm, Rm 39-200.

Tae Kwon Do Club

Tues, Thurs, 5-7pm; Sat, 11am-1pm. duPont T-Club Lounge. Call Jae Kim, X9212 Dorm.

Tech Engineering News**

General staff meeting, Sun, 5pm, Rm W20-453.

Technique

Staff meetings. Sat, 11am, Student Center Rm 451.

Tech Squares***

Western style square dancing. Tues, 8-11pm, Sala de Puerto Rico. Admission: \$1, first time free.

Tiddlywinks Association*

Wed, 8pm, Student Center Rm 491.

Unicycle Club*

Activities and beginners' session, Sun, 1pm, in front of Student Center.

Wellesley Events

As You Like It*

Presented by the Wellesley College Shakespeare Society. Thur-Fri, Apr 12-13, 8pm, Shakespeare Society House. Sat, Apr 14, 2pm, Amphitheater; 7pm, Shakespeare Society House. Free.

Baba Ram Dass Will Be Here Now

Prof. Richard Alpert. Religion and Biblical Studies Seminar. Wed, Apr 11, 8pm, Schneider, main floor.

AFFIRMATIVE ACTION PLAN

OF THE

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

April 6, 1973

Preface

This Institute-wide Affirmative Action Plan has been prepared as an expression of MIT's commitment to the principle of equal opportunity in employment and in education and is in accordance with all Federal government regulations affecting equal opportunities in higher educational facilities as of January 1, 1973.

The substance of this Plan will be disseminated to the MIT community through publication in *Tech Talk*, the official Institute newspaper. Subsequent Institute policies and procedures, developed either to meet goals outlined in this Plan or to address later provisions and amendments of Federal government regulations, will be disseminated to the Institute community through *Tech Talk* and will be added to this Plan semi-annually.

A reference copy of this Plan will be on file in each department, office, and laboratory and in the Institute Information Center, Room 7-111. Copies of the total Plan, including each department's specific Affirmative Action Plan, will be on file in the appropriate Personnel offices, in the Office of the Assistant for Minority Affairs, in the Office of the Special Assistant for Women and Work, and in the Office of the President and Chancellor.

PERSONS DIRECTLY RESPONSIBLE FOR OVERSEEING MIT'S AFFIRMATIVE ACTION PLAN

The President and Chancellor and the respective off-campus laboratory directors have designated to the following persons the responsibility for monitoring the progress of MIT's Affirmative Action programs. All inquiries in reference to this Plan should be directed to the appropriate person listed below.

MIT CAMPUS

James Allison Assistant for Minority Affairs in the Office of the President and Chancellor and the Institute's Equal Opportunity Officer—overall equal opportunity coordinator and official liaison with all appropriate Federal and state agencies.
Ext. 3-4941
3-7845
3-7960

Mary Rowe Special Assistant for Women and Work in the Office of the President and Chancellor—coordinator of equal opportunity in employment and education for women.
Ext. 3-5917
3-5921

DRAPER LABORATORY

Robert A. Duffy President - Elect — equal opportunity coordinator for the Draper Laboratory.
Ext. 18282868

LINCOLN LABORATORY

John Dargin Director of Personnel and Equal Opportunity Coordinator for Lincoln Laboratory—reports directly to Laboratory Director.
Ext. 1817407

I. Introduction

As a major educational institution, a large-scale employer, and an influence on our society through its students, its alumni, and its employees, the Institute stands committed to the principle of equality of opportunity in employment and in education.

In its most elementary and comprehensive form, our adherence to the concept of equality of opportunity requires that we strive toward a condition in which considerations of race, sex, national origin, and religion are irrelevant as determinants of the access an individual has to opportunities for education, for employment, for achievement, and for personal fulfillment. Rather, the controlling factors in all such matters must be individual ability, interest, and merit.

The Institute's posture with respect to the principle of equality of opportunity in this community was expressed in the *Report of the President and Chancellor* for the 1971-72 academic year:

"MIT, together with other institutions in this society, must rethink and recast the structure of opportunity which we afford those who spend time with us—opportunity for individual satisfaction and self-fulfillment, opportunity for participation in affairs which affect them, opportunity for employment and subsequent advancement. All who study here and work here stand to benefit from greater attention to

these basic human needs. Persons employed at the Institute require ready access to opportunities for advancement, as well as greater attention to their needs for personal and career development. Those who study here deserve an education which enriches the essential lifelong process of growth and educational self-renewal and places a premium on self-sufficiency and intellectual independence.

"While these goals pertain to all members of the MIT community, at this moment in time we have a special responsibility to expand opportunities for members of minority groups and women at all levels of the Institute. We must not stand aside from the society as it struggles to consolidate the opportunities for a decent life that now exist. Indeed, we should be innovative and creative in our handling of these difficult problems with the hope that, in so doing, we will point the way for others, as well as enriching our own environment for all members of this community. We must put special emphasis on placing in significant positions at all levels competent women and members of minority groups with whom young people may identify professionally and personally. Our record of achievement in the past year has been significant but falls short of the standard that we have set for ourselves. We are taking steps to improve our means for meeting our pledge to the Federal government and, even more importantly, to ourselves."

At the present time women and members of some minority* groups are underrepresented in many categories of employment and in most student categories. This underrepresentation has resulted from the history of American society, which was reflected in past Institute practices which, until very recently, have been at best neutral with respect to this underrepresentation and, at worst, discriminatory with respect to minorities and women.

Our present and future course in these matters, which goes beyond non-discrimination, i.e., the elimination of all policies and practices that work to the disadvantage of individuals on the basis of race, sex, national origin, or religion, is based on the concept of Affirmative Action.

The principle of Affirmative Action requires the Institute to determine if it has met its responsibilities to recruit, admit, employ, promote, and reward women and minorities to a degree consistent with their availability and merit, whether or not any failure to do so can be traced to specific discriminatory policies or actions. Where women and minorities are underrepresented at MIT in the student and employment ranks, the Institute will recruit and employ them in accordance with their increasing availability. The premise of this commitment is that the corrosive effects of systematic exclusion, inattention, and overt discrimination in the past cannot be remedied in appropriate ways and in a reasonable time by a posture of neutrality with respect to race and sex. Affirmative action is necessary to avoid the perpetuation of the inequities that are our heritage from these exclusionary and discriminatory practices of the past.

While the Institute is obliged, as a major Federal contractor, to develop and sustain a program of Affirmative Action, our commitment to these matters transcends legal or contractual requirements. We undertake these actions and adopt these policies not because we are required to, but because it is right and proper that we do so.

II. MIT Affirmative Action Policy

The Institute's Affirmative Action program is intended to expand our efforts to guarantee equality of opportunity in employment and in education and to reduce underrepresentation and underutilization of minorities and women at MIT. For all Institute categories of employment, our objectives are to achieve a representation of women and minorities that is at least in proportion to their current availability and to provide new opportunities for career development which both stimulate and respond to their changing interests and aspirations. Similarly, for all of the Institute's educational programs, our objectives are both to achieve representations of minorities and women in the student body which reflect their current availability and interests and to encourage larger proportions of these groups to seek careers for

which the Institute's educational resources are designed to prepare them.

In accordance with these overall objectives, numerical goals and timetables for employment at the Institute have been set. (*The specific employment objectives are detailed in the individual Plans of the Institute's organizational units which are listed in Appendix A.*)

Achievement of these goals and attainment of the longer-range objectives require adoption of the following principles:

1. All categories of employment at the Institute having fewer minorities and women than would reasonably be expected on the basis of their availability in the work force must be identified. These imbalances must be reduced by vigorous and systematic recruitment efforts. Where appropriate and feasible, job training and professional development efforts will be undertaken. These requirements apply to academic departments (including faculty and academic staff categories), laboratories, and all administrative and support activities.
It is important to note that many unreasonable limitations and inequitable situations in employment are rooted in occupational segregation and in the stereotyping of roles in our society. Thus, equality of opportunity requires that we make equally accessible to all persons job categories that have been preponderantly occupied by women and/or minorities.
2. All employees will be encouraged to make the fullest use of their skills and talents by participating in educational and career development opportunities and by taking advantage of opportunities for promotion and transfer consistent with both the needs of the Institute and the individual's ability and aspirations. Special efforts will be made to ensure that women and minorities are aware both of this principle and of specific opportunities that may be of interest.
3. Equal compensation, benefits, and support will be provided without regard to race, sex, national origin, or religion to all staff and employees of equal merit in positions of equivalent responsibility.
4. Access to educational programs, financial assistance, and other services and facilities will be provided to students in a manner that does not discriminate against women and minority students.
5. It will be our goal to increase the numbers of women and members of minority groups within our undergraduate and graduate student bodies. This goal can be attained only by a vigorous program to recruit potential applicants and to increase the interests in, preparations for, and availabilities of women and minorities for careers in science and technology. While ultimate success will result in substantial changes in admission patterns, our immediate efforts must concentrate on enlarging the pool of qualified women and minority applicants from which we admit students.
6. Selections among candidates for employment and among student applicants must reflect both continuing attention to individual merit and quality and a recognition that narrow interpretation of qualifications or credentials has worked to the disadvantage of women and minorities. In other words, the Institute's employment practices and its admission policies must emphasize individual merit, performance, and potential in ways that reflect the fact that limited prior opportunity, social discrimination, and enforced segregation influence a person's record of achievement.
7. Procurement and purchasing practices must ensure maximum opportunity for the participation of minority and female vendors in the provision of services and materials and for the employment of minority contractors and construction workers in the construction or renovation of Institute facilities, either on or off campus. In this regard, each contractor who seeks MIT business is expected to have and to follow an Affirmative Action program that is in accord with Federal and state regulations.

The primary responsibility for adherence to these principles, and for the establishment of an atmosphere in which the evolving concept of Affirmative Action is accepted and supported, rests with supervisors at all levels and with every person having administrative responsibility within the Institute.

Overall monitoring, auditing, and staff coordination of the Institute Affirmative Action program has been

*The term "minority" used in this Plan refers to Black Americans, Indian Americans, Oriental Americans, and Spanish-surnamed Americans.

assigned to the Assistant for Minority Affairs in the Office of the President and Chancellor who has been designated the Institute Equal Employment Opportunity Officer and who has the responsibilities outlined in the Federal Contract Compliance Regulations.*

In the long run, our objective as an institution is to change in ways that will achieve true equality of opportunity in employment and in education and which, thereby, will obviate the need for specific programs of affirmative action.

III. Affirmative Action for Academic Staff

A. Aims and Plan of Action

At the present time, women and minorities are underrepresented in most academic positions within the Institute, particularly in faculty positions, both tenured and untenured. Our commitment to a policy of Affirmative Action requires that we make every effort—and that we show substantial progress over time—in the following directions. First, we must increase the number of minorities and women on our Faculty and academic staff. This increase must be consistent with departmental needs for teaching and research talent and consistent with the needs for development of existing and/or new professional fields and programs. Second, MIT must seek to broaden the pool of available candidates for each position on the Faculty and academic staff by recruiting and educating minority and women students (see Section V.), as well as by developing shorter-range programs of career orientation and professional development. In particular, our efforts must be designed to encourage and to facilitate the movement of promising women and minority candidates into the fields of science and engineering and the applications of science and technology to human and social problems. The academic fields related to science and technology are of particular concern to us because MIT is committed to leadership in these fields, in which the present imbalance in representation of minorities and women is large.

In addition to our efforts to increase the numbers of qualified women and minorities, we are committed to supporting those who are now on our Faculty and academic staff by providing for them the opportunities for promotion and professional growth that will in turn increase their representation in the senior ranks of the academic professions.

In short, our program for the Faculty and academic staff is a maximum, result-oriented effort to increase the number of women and minorities and to create an atmosphere of support, encouragement, and congeniality in which all faculty and academic staff may thrive professionally and personally.

The following course of action is intended to achieve the Institute's goals and meet existing problems in this area:

1. Each academic department will identify the extent to which women and minorities are underutilized in each professional rank, by means of utilization analysis** of the department's faculty and academic staff. In academic areas where there is underutilization of women and minorities, vigorous and systematic efforts will be undertaken to identify and to recruit women and minority candidates.
2. Each department will establish, on an annual basis, numerical goals and timetables as guidelines for its progress in recruiting and hiring women and minorities for academic positions.
3. The departments will seek to increase the pool of potential candidates in their areas by vigorous and systematic recruitment of women and minority graduate students.

To implement this program, departments will follow the specific set of procedures outlined in Appendix E-1, Academic Departmental Procedures for Affirmative Action.

B. Responsibility for Implementation

Responsibility for meeting departmental goals and timetables rests with each department head. It will be expected, however, that all members of the academic

staff will cooperate and support these efforts, in terms of both their supervisory roles and their participation on various Institute committees.

Responsibility for the assurance of good faith efforts belongs to the academic Deans and the Academic Appointments Subgroup (See Appendix C-2) of the Academic Council which considers serious search efforts (See Appendix D-3) with regard to women and minority candidates in weekly reviews of proposed academic appointments.

The Assistant for Minority Affairs (the Institute's Equal Employment Opportunity [EEO] Officer) and the Special Assistant for Women and Work will play leading roles in the development, coordination, and monitoring of all Affirmative Action programs. They will assist department heads in the preparation and implementation of specific plans to ensure the effectiveness and continuity of the Institute Plan within each department unit. In addition, department heads will monitor progress on a quarterly basis and will submit a semi-annual evaluation report to the Institute's EEO Officer.

To assure good communication and visibility, each department head (or director of a research center or laboratory) will act as departmental EEO Representative. If a department head chooses to delegate some of the responsibility in this area, he or she may appoint a member of the department as EEO Representative. This person will assist the department head—working with members of the department, the appropriate Dean or senior officer, and the Assistant for Minority Affairs and the Special Assistant for Women and Work—to implement and monitor both the academic and non-academic policies and procedures that are contained in the Institute's Affirmative Action Plan, as well as the department's Affirmative Action Plan.

EEO departmental Representatives will be announced to the MIT community no later than May 1, 1973.

The specific responsibilities of the departmental EEO Representative (whether or not he or she is the department head) will be as follows:

1. to establish specific methods for identifying the underutilization of skills and talents of women and minority staff and employees within the department and to encourage both their participation in educational and career development programs and their taking advantage of opportunities for promotion and transfer, consistent with their individual abilities and aspirations and with the needs of the Institute;
2. to seek the help of everyone in the department, particularly women and minorities, in identifying problem areas related to the goals of Affirmative Action (including possible problems with attitudes, atmosphere, etc.) and in referring qualified minority and women candidates for both academic and non-academic positions;
3. to develop a serious search (See Appendix D-3 and Appendix D-4) strategy, including an up-to-date list of contacts, for identifying women and minority applicants in career fields appropriate to the department's needs;
4. to maintain a file on minority and women applicants and potential candidates for academic positions within the department;
5. to undertake a careful review of departmental employment criteria relating to merit (See item 6 in Section II) and to make certain that all job requirements are specifically necessary for the category under consideration (e.g., whether certain degrees are necessary, whether "requisite" skills are actually utilized, and whether on-the-job training could be substituted for certain requirements);
6. to review the criteria for departmental hiring, retention, promotion, and tenure as actually implemented to ensure that procedures are in compliance with the Higher Education Act of 1972 and HEW Guidelines (See Higher Education Guidelines, Executive Order 11246);
7. to disseminate the latest Institute policies and procedures on Equal Employment Opportunity to all members of the department, both professional and non-professional;
8. to develop strategies for increasing the available pool of candidates for academic positions, such as actively recruiting women and minorities for graduate programs and postdoctoral training;
9. to conduct quarterly reviews of progress, and, if necessary, to take steps for (or recommend) re-evaluation and corrective action; and
10. to develop within the department specific procedures for reviewing alleged complaints of discrimination consistent with the Institute's complaint policy which is now in operation (See Appendix D-2).

IV. Affirmative Action for Non-Academic Employment

A. Aims and Plan of Action

Women and minorities are underrepresented in many non-academic positions at the Institute. Furthermore, the Institute recognizes that many inequitable situations in

employment are rooted in occupational segregation and in stereotyping of roles in our society. These persistent problems have resulted in widely held perceptions by many minority and women employees (and prospective employees) that job responsibilities and opportunities for advancement are seriously limited, and that individual skills and talents will be inadequately recognized and rewarded. Accordingly, given the Institute's commitment to equal opportunity in all employment areas, the Affirmative Action Plan for non-academic employment has a double responsibility: first, to correct the present underrepresentation and underutilization of women and minorities; and, second, to reverse prevalent feelings of frustration and low expectations for change on the part of many valuable and talented employees.

The recent reorganization of services in the Personnel Office is intended—in large measure—to alleviate this problem. Specifically, personnel officers have been assigned to each department, office, and laboratory with full responsibility for all personnel matters—including assistance in affirmative action—at all levels of non-academic employment. In view of both the problems and aims described above, the following course of action has been established:

1. Within each non-academic area (administrative unit, office, department) of MIT, the imbalance in representation of minorities and women vis-à-vis other (white male) employees will be identified and documented.
2. On an annual basis, specific numerical goals and timetables will be established in an effort to correct imbalances, and specific methods will be developed to facilitate achievement of the goals.
3. Vigorous and systematic recruitment of minorities and women, both inside and outside the Institute, will be undertaken.
4. Job training, career counseling, and professional development programs will be offered where appropriate and feasible.
5. All employees will be informed of the policies, goals, and procedures with respect to non-discrimination outlined in the Institute's Affirmative Action Plan. Special efforts will be made to ensure that women and minorities are aware of specific opportunities for promotion, transfer, and training that may be of interest to them.
6. Steps will be taken to sensitize supervisors to both subtle and overt forms of discrimination and to inform them in detail about the Affirmative Action program, both in terms of legal requirements and of MIT's particular commitments.
7. The Institute will make efforts in the direction of improving access by all persons to job categories which have traditionally been preponderantly occupied by women and/or minorities.

Specific affirmative action procedures for non-academic employment are detailed in Appendix E-2.

B. Responsibility for Implementation

Responsibility for meeting the objectives in this area rests with the department head or the director of each office, center, or laboratory. For certain staff positions, the responsibility for good faith efforts is vested in the Provost or in the Vice President responsible for the specific organizational unit and in the Staff Appointments Subgroup (See Appendix C-2) of the Academic Council which considers the serious search effort (See Appendix D-4) in weekly reviews of non-academic staff appointments.

For the recruitment, referral, and hiring of candidates in non-academic categories, there is a sharing of responsibility between the departmental leadership and the Personnel Office. Specifically, in order to enable each department to meet its equal opportunity goals, the Personnel Office is responsible for providing minority and women applicants according to their availability. It is the responsibility of individual departments to supply the Personnel Office with basic, essential job requirements for each available position, in sufficient time to allow for a serious search to produce "qualified" (defined in terms of merit, described in Section II, item 6) minority and women candidates either from within the Institute or from external recruitment sources.

An annual review and analysis of all employment categories will be undertaken by the Assistant for Minority Affairs and the Special Assistant for Women and Work to monitor progress toward full representation of minority and women employees at MIT. Minority and women referrals and transfer requests from each department will be included in this analysis. This data will be supplied by the Personnel Office in cooperation with each of the departments, laboratories, offices, and centers.

The Assistant for Minority Affairs and the Special Assistant for Women and Work will play the same roles in developing, coordinating, and monitoring departmental affirmative action programs as described in Section III, part B.

The head of each administrative unit (office or department), or his designee, will be appointed as Equal Employment Opportunity (EEO) Representative and will have specific responsibilities as outlined for academic EEO Representatives in Section III, part B.

* Chapter 60-2.22. HEW was notified about the appointment of an Equal Employment Opportunity Officer in a letter dated June 12, 1972.

** According to the Federal guidelines for Affirmative Action programs, "underutilization is defined as having fewer minorities and women in a particular job classification than would reasonably be expected by their availability." The utilization analysis, which is a required part of the Plan, is intended to show representation of women and minorities in comparison with relevant "catchment" or recruitment "pools" for faculty and academic staff positions. The utilization analysis should estimate the proportions of women and minorities available at the appropriate skill levels both within and without the Institute. It is the purpose of this analysis to show clearly those areas where women and/or minorities are underrepresented, together with the reasons for underrepresentation.

V. Affirmative Action for Educational Opportunity

The purpose of this section is to describe MIT's commitment to increasing the numbers of women and minority group members in our student body through a vigorous and systematic program of recruitment. The plans and procedures set forth in this section have also been written to conform with Title VI of the Civil Rights Act of 1964 and the Equal Educational Opportunity Act of 1972.

A. Aims and Plan of Action

At the present time, women and members of some minority groups are underrepresented in most student categories at MIT. It is our policy to reduce these imbalances by increasing the interests in, preparation for, and availabilities of women and minorities for careers in science and technology. While ultimate success will result in substantial changes in admission patterns, our immediate efforts must concentrate on enlarging the pool of qualified women and minority applicants from which we admit students.

It is also our objective to remove educational, social, and financial barriers which have discouraged many women and minority students from taking advantage of educational opportunities offered by the Institute.

On another level, the Institute and each of its academic departments are aware that most professional opportunities for women and minorities in science and engineering require graduate degrees, and, hence, the number of minorities and women with advanced degrees must be greatly increased to help increase their representation at MIT, at other universities, and in business and industry.

In view of these objectives, the Institute has established the following plan of action:

1. Access to educational programs, financial assistance, and other services and facilities will continue to be provided to students in a manner that does not discriminate against women and minority students.
2. Minorities and women often feel isolated academically and socially at MIT both because of their small numbers and because of cultural and/or sex role stereotypes. To address this problem, the Institute will continue to provide special support both formally, through the Office of the Dean for Student Affairs and the Office of the Dean of the Graduate School, and informally, by encouraging minority and women faculty, staff, and students to serve as advisors on academic and social matters.
3. The Institute will continue to provide special academic support services, where appropriate, to ensure that the needs of students with special problems are met.

Implementation policies and procedures in the student-related areas—admissions, financial assistance, student support services, student activities and housing, student placement, and graduate student support—are detailed in Appendix E-3.

B. Responsibility for Implementation

Responsibility for implementation of the Affirmative Action programs and procedures in the student-related areas rests with each office director or Dean and the standing review committees in the areas mentioned above.

Each administrative unit with responsibility for various aspects of the educational and student affairs areas defined above will review its particular policies and procedures according to the Affirmative Action Plan and will develop an implementation plan incorporating specific goals which will be reviewed and approved by the appropriate policy committee at MIT.

On a yearly basis, each office will review its plan and will prepare an annual report which will outline and analyze both efforts and progress made toward meeting Institute goals and federal regulations. This annual report, including any proposed changes in policies or procedures, will be submitted to the Office of the President and Chancellor by the end of each academic year and will be reviewed by the Assistant for Minority Affairs and the Special Assistant for Women and Work.

VI. Affirmative Action in Construction, Vending, and Procurement

A. Aims and Plan of Action

Over the past five years, MIT has become a leader in promoting minority group participation in Institute-related construction and vending enterprises. To maintain its leadership position in this area and to continue in compliance with the Federal and state regulations governing construction and vending, the Institute is committed to the following course of action:

1. Existing procedures will continue to be employed, and new procedures will be developed to secure maximum participation of minority vendors in Institute purchasing and minority contractors and construction workers in new construction or renovation, both on and off campus.

2. An effort will also be made to develop appropriate policies to address the growing problem of discrimination against women in these areas.
3. It is the Institute's policy to give its full support to local community agencies, such as the Contractors Association of Boston, who are working to improve utilization of minority contractors.

In particular, MIT's Affirmative Action program in construction contains the following provisions:

- a) An equal employment opportunity clause will be written into all renovation and new construction contracts.
- b) The Institute, through the department involved, will require contractors, negotiating or bidding on work, to be in compliance with Executive Orders 11246 and 11375 before contracts are awarded.
- c) A description of the plan for minority contractor utilization, including subcontractors, will be required as a component of the bid procedure.
- d) During the actual construction, each prime contractor will submit a weekly statement to the appropriate resident engineer outlining the work force composition and the use of minorities by his or her organization both directly and through subcontracting.
- e) The Equal Opportunity Construction Representative will visit construction sites weekly to review and report on Affirmative Action compliance.

With regard to vending contracts the following provisions will apply:

- a) The Equal Opportunity clause will appear on all purchase orders.
- b) A listing of suppliers, purchasing agents, and purchasing associations having Affirmative Action programs will be compiled.
- c) A listing of minority and women suppliers, purchasing agents, and purchasing associations will be compiled.
- d) These lists will be used by the Assistant for Minority Affairs and the Special Assistant for Women and Work to maximize opportunities for minority and women vendors and to see that all vendors are aware of MIT's Affirmative Action requirements in order to improve their opportunities to bid for Institute contracts.
- e) At the time of bid presentation, vendors will be required to provide certification of compliance with Federal and state guidelines.
- f) MIT's Purchasing Council will review progress semi-annually in the utilization of minority and women suppliers and, subsequently, will make appropriate changes in procedures.

B. Responsibility for Implementation

With respect to construction contracts, the Director of Physical Plant will be responsible for making sure that the provisions stated above are carried out during all phases of the planning and actual construction of each project. Reports of each project will be forwarded to the Assistant for Minority Affairs and the Special Assistant for Women and Work. The Assistant for Minority Affairs will be responsible for auditing the construction program efforts and for recommending changes whenever necessary.

With respect to vending contracts, it is the responsibility of the Purchasing Office to identify minority and women businesses among potential suppliers and to require the compliance of all suppliers with Executive Orders 11246 and 11375.

Appendix A

Listing of Departments, Offices, Centers, and Laboratories having Affirmative Action Plans

Office of the President, Chancellor, and Vice President (including Assistants, Chairman of the Corporation, Honorary Chairman, President Emeritus, President's House, and Analytical Studies and Planning Group)

Institute Information Services (including the News Office, Design Services, and Information Center)
MIT Press

Dean for Student Affairs (including Foreign Student Advisor, Dean for Institute Relations, Student Activities, and Technology Community Association)

Athletic Department
Information Processing Services
Information Processing Center
Program Development Office
Office of Administrative Information Systems

Office of the Dean of the Graduate School

Office of the Provost (including Lowell Institute, Institute Professors, and ROTC Programs)
Artificial Intelligence Laboratory

Cambridge Project
Center for Advanced Visual Studies
Center for International Studies
Clinical Research Center
Committee on the Visual Arts
Education Research Center
Health Sciences and Technology Division
Joint Center for Urban Studies
Libraries (including Project INTREX and Engineering Library)
Neurosciences Research Program
Project MAC
Sea Grant Project
Summer Session
Urban Systems Laboratory

Office of the Vice President for Research

Center for Materials Science and Engineering
Center for Space Research
Laboratory for Nuclear Science
National Magnet Laboratory
Research Laboratory of Electronics
Energy Laboratory
Lincoln Laboratory
Draper Laboratory

Office of the Vice President, Administration and Personnel

Admissions Office (including Educational Council)
Financial Aid Office
Personnel Office
Placement Office
Planning Office

Office of the Vice President and Treasurer

(including Associate Treasurer and Real Estate. In addition this plan includes:

Office of the Vice President for Business and Fiscal Relations [including Comptroller, Accounting Office, Audit Division, Bursar, Division of Sponsored Research, Draper Fiscal, Investment Administration, Laboratory Supplies, Lincoln Fiscal, Payroll, Pension and Budget Offices, and Purchasing.]

Office of the Vice President, Operations

Campus Patrol
Graphic Arts (including Audio-Visual)
Housing and Food Services
Physical Plant
Safety Office

Office of the Vice President

Medical Department
Registrar

Office of the Vice President for Resource Development (including Institute Secretaries)

Development Office
Industrial Liaison Office
MIT Associates Program

Office of the Vice President and Secretary

Endicott House
Registry of Guests

Office of the Dean of Architecture and Planning

Architecture
Urban Studies and Planning

Office of the Dean of Engineering

Aeronautics and Astronautics
Chemical Engineering
Civil Engineering
Electrical Engineering
Mechanical Engineering
Metallurgy and Materials Science
Nuclear Engineering
Ocean Engineering
Center for Advanced Engineering Studies
Center for Policy Alternatives

Office of the Dean of Humanities and Social Science

Economics
Foreign Literatures and Linguistics
Humanities
Philosophy
Political Science
Psychology

Sloan School of Management

Operations Research Center

Office of the Dean of Sciences

Biology
Chemistry
Earth and Planetary Sciences (including Center for Earth Sciences)
Mathematics
Meteorology
Nutrition and Food Sciences
Physics

Other

Alumni Association
Credit Union
Faculty Club

Appendix B-1 Appendix B-2 Appendix B-3

(These Appendices, showing organization charts of MIT, Lincoln Laboratory and Draper Laboratory, are included with complete copies of the Affirmative Action Plan on file in locations listed in the Preface.)

Appendix C-1

Revised Charter of MIT's Equal Opportunity Committee

The Equal Opportunity Committee will recommend to the President and Chancellor policies and procedures which will further the fulfillment of MIT's commitment to equal opportunity in employment and education. Proposed changes in Institute policies or procedures affecting equal opportunity and arising from other sources will be referred to the Committee for comment prior to implementation. The Committee may request such information from appropriate Institute sources as necessary for it to judge the need for changes in policies or procedures or the merits of proposed changes.

The Committee will be appointed by the President and will consist of 24 members drawn from the Faculty, the research and administrative staff, the employees, and the student body. The President will designate the Chairman, and the Committee will meet at the Chairman's call. The Assistant for Minority Affairs, the Special Assistant for Women and Work, and the Vice President for Administration and Personnel will be members of the Committee, *ex officio*.

The Chairman of the Equal Opportunity Committee is Leon Trilling, Professor of Aeronautics and Astronautics. The members of the Committee will be announced to the MIT community when all appointments are complete.

Appendix C-2

Members of the Academic Council, Academic Appointments Subgroup* and Staff Appointments Subgroup**

	Room No.	Ext.
* Jerome B. Wiesner President	3-208	3-4665
*, ** Paul E. Gray Chancellor	3-208	3-1525
*, ** Robert A. Alberty Dean, School of Science	6-215	3-2456
* Robert L. Bishop Dean, School of Humanities and Social Science	E52-344	3-6181
** Stuart H. Cowen Comptroller	4-106	3-6056
** Paul V. Cusick Vice President for Business and Fiscal Relations	4-110	3-3331
** Carola B. Eisenberg Dean for Student Affairs	7-133	3-6776
** Vincent A. Fulmer Vice President and Secretary of the Institute	7-202	3-5614
*, ** Albert G. Hill Vice President for Research	3-305	3-1645
*, ** Alfred A.H. Keil Dean, School of Engineering	1-206	3-3291
James B. Lampert Vice President for Resource Development	7-206	3-3500
Natalie N. Nicholson Director of Libraries	14S-216	3-5651
* William L. Porter Dean, School of Architecture and Planning	7-233	3-4401
* William F. Pounds Dean, Sloan School of Management	E52-474	3-7150
* Hartley Rogers, Jr. Chairman of the Faculty	2-270	3-2681

- * The individuals whose names are starred (*) are members of the Academic Appointments Subgroup of the Academic Council.
** The individuals whose names are double-starred (**) are members of the Staff Appointments Subgroup of the Academic Council.

*, ** Walter A. Rosenblith Provost	3-240	3-1971
*, ** Constantine B. Simonides Vice President	3-209	3-5911
* Irwin W. Sizer Dean, Graduate School	3-136	3-4869
Joseph J. Snyder Vice President and Treasurer	10-200	3-4227
** Philip A. Stoddard Vice President, Operations	4-110	3-3332
** Kenneth R. Wadleigh Vice President	5-208	3-1776
*, ** John M. Wynne Vice President, Administration and Personnel	7-201	3-4942

Appendix C-3

Equal Opportunity Committee (Draper Laboratory)

Robert Duffy	WM Vice Pres., Chairman	DL3-417	5468
Byong-Ho Ahn	OM Minicom	DL1-212	5432
Charles Alkins	BM Minicom	DL2-311	5182
Edward Burns	BM Minicom	DL6-071	3485
Thomas Davis	BM Mechanical Design	DL11-204	821-361
Dana Densmore	WF Apollo B	DL7-215D	821-598
Rebecca Fairbank	WF Projects Office	DL3-305	2374
Shirley Grady	WF Bedford Flight	DLB1-2	812-214
Julia Hsia	OF DCG	DL7-105	821-156
James Layne	BM DSS	DL12-186	7391
Roger Mascoll	BM Minicom	DL1-309	3412
Theos McKinney	BM TAC	DL6-303	2461
*Robert Pinckney	BM DCG	DL7-135	821-160
Martha Pennell	WF DCG	DL7-116	821-101
Eleanor Moushegian	WF Personnel, Recorder	DL2-116	3563

Appendix D-1

Added or Revised Faculty Policies

The following revisions and restatements of faculty policies and procedures were adopted as of July 6, 1972, in accordance with Federal equal employment opportunity regulations, and will be included in the revised edition of *Policies and Procedures*, the Institute guide for staff members:

1. An Equal Employment Opportunity statement was added to the revised *Policies and Procedures*.
2. Sections 2.20 and 2.61 of *Policies and Procedures* were revised to reflect:
 - a) modification of continuous service and age requirements with respect to tenure decisions;
 - b) additional leave of absence without penalty for child-bearing and child-rearing; and
 - c) a new anti-nepotism policy (see below).

"The Institute reaffirms its policy to base appointments and promotions on qualifications and performance.

"In keeping with this policy, members of the same family, including husband and wife, are eligible for employment as faculty members as they have been eligible for positions within the other job categories. However, a supervisor-employee relationship shall not prevail in these instances at the time of employment or thereafter, nor shall one member of the family relationship assume for the other the role of advocate or judge with respect to conditions of employment or promotion.

"Where members of the same family are recommended to work for the same supervisor, the arrangement shall be approved in advance by the President and Chancellor. This change in regulations emphasizes the criterion of merit in all Institute appointments and promotions."

- * Robert P. Pinckney ('33) has been appointed as Opportunity Development Officer, with special responsibilities for minority personnel at the Draper Laboratory. In his assignment, he will act as a counselor-consultant to the Personnel Department. His major responsibility in this position will be to assist present minority employees in their career development and to assist in the development of programs to recruit and hire minority applicants.

Appendix D-2

Procedure for Complaints of Discrimination

Any person employed* at MIT who believes that the Institute's stated policy of non-discrimination has been violated and that he or she has been discriminated against should have access to a clear means of seeking redress. Such persons should be encouraged to communicate, either in writing or in person, with the Office of the President and Chancellor and particularly with the Assistant for Minority Affairs or the Special Assistant for Women and Work. Either will initiate an inquiry into all the facts relevant to the complaint and will attempt to resolve the matter to the satisfaction of both the aggrieved individual and the person or organization against which the charge of discrimination has been brought. If resolution is not possible, the matter will be referred to the Chancellor.

This process will be held confidential to the extent that the aggrieved person wishes it. It is expected that any person who feels discriminated against will have sought to resolve his or her complaint with the appropriate persons within the department, including the department head, and, in the case of other than academic staff, with the assistance of the appropriate personnel officer before bringing the complaint to the attention of the Assistant for Minority Affairs or the Special Assistant for Women and Work.

Appendix D-3

Serious Search Policy for Faculty and Other Academic Staff Incorporated December 10, 1971

The extension of the Affirmative Action Plan for Equal Employment Opportunity issued by President Howard W. Johnson in May, 1971, requires the following policy in the appointment of women and minority group members to faculty and other academic staff appointments:

"Prior to making any new academic staff appointments each year, department heads are expected to demonstrate to the Equal Opportunity Task Force for Faculty and Staff that a serious search for qualified women and minority candidates has been made."

To make this policy more effective and to bring responsibility exercised by the Deans of the Schools into the process, a change was made to the procedure as shown below and was outlined in a letter to Deans and department heads by Dr. Benson R. Snyder, Chairman of the Equal Opportunity Committee.

The following information, in the form of a letter, will accompany each recommendation for an appointment and will be forwarded by the department head to his or her academic Dean for the three faculty ranks (including visiting faculty) and instructors:

1. the number of appointments in this rank the department expects to make this academic year;
2. the fields or subfields in which the department considered making the appointments;
3. the department's estimate of the size of the qualified women and minority applicant pool in each of the fields under consideration and, also, the basis for this estimate;
4. the means used by the department to extend its academic recruitment resources, and the specific methods the department is using to seek out candidates for the position being filled;
5. the numbers of women and minority candidates accrued as a result of the search and the means used to evaluate them;
6. whether any women and minority candidates were among that group from which the final choice was made;
7. whether any offers were made to women or minority candidates, the nature of the offer, and the response, including the reasons given for not accepting the offer; and
8. whether women or minority candidates were rejected and, if so, the reasons for their rejection.

The Dean, if satisfied that the search has been satisfactory, will discuss the proposed appointment and nature of the search with the Academic Appointments Subgroup of the Academic Council.

Appendix D-4

Serious Search Policy for Staff Appointments Incorporated July 15, 1972

Prior to making any offer of appointment to a person outside the Institute for a full-time Division of Sponsored Research (DSR) staff, administrative staff, library staff, or medical staff position with a term of one year or more, the department or laboratory head is required to demonstrate that a serious search for qualified women and minority candidates has been made.

To provide the required assurance of a serious search, it has been suggested that a letter accompanying each recommendation for an offer of appointment be forwarded by the department or laboratory head to the

- * This procedure is not intended to apply to employees who are represented by a labor union. Collective bargaining agreements applying to these employees include grievance and arbitration procedures and equal opportunity provisions.

appropriate academic Dean or Vice President (or to the Provost in the case of interdepartmental laboratories and centers reporting to him), containing the following information:

1. the means used by the department to search for candidates for the position being filled;
2. whatever information is known about the size of the pool of qualified women and minority candidates for the position;
3. the number of women and minority candidates accrued as a result of the search and the means used to evaluate them, such as letters of recommendation, telephone references, and interviews;
4. whether any offers were made to women or minority candidates, the nature of the offer, and the response, including reasons given for not accepting the offer; and
5. whether women or minority candidates were rejected and, if so, the reasons for their rejection.

The Dean, Vice President, or the Provost, if satisfied that the search has been satisfactory, will discuss the proposed appointment and nature of the search with the appropriate Appointments Subgroup of the Academic Council.

Recruitment for the Division of Sponsored Research and administrative staff positions is often carried out either exclusively by the Personnel Office or jointly with the department offering the position. In such instances, the search documentation should include an account of efforts to recruit women and minority applicants by the Personnel Office.

Appendix D-5

Maternity Leave Policy

The following policy regarding maternity leave will apply to personnel on the hourly, biweekly, exempt, administrative, and the Division for Sponsored Research staff payrolls.

A maternity leave of eight weeks, without pay, will be granted to women who plan to return to work. (They may, of course, use and be paid for any accumulated vacation time during this period.) The individual is expected to give adequate notice—usually two weeks—before beginning a leave. She may keep all her benefits in force during the leave if she wishes and if she makes arrangements in advance for payment of the regular benefit deductions.

Under normal circumstances, the individual can expect to return to her job or to an equivalent job in terms of classification and pay within her department or laboratory. If her job has been eliminated because of reduction in the work force or other circumstances, efforts will be made to find other suitable employment, first, in the department concerned and, second, within the Institute.

Leaves of more than eight weeks may be granted at the discretion of individual department heads. Extended leaves may not exceed 26 weeks. In granting such leaves, the department commits itself to provide the same or an equivalent job within the department at the end of the leave period.

Benefits will not normally be continued beyond the eight-week period on extended leave. Requests for extension of benefits must be made in writing by the department head and approved by the Dean or Vice President concerned and by the Personnel Office.

A woman on maternity leave may use her available sick leave for a period of two weeks (ten days of leave) beginning the day she enters a hospital for childbirth. Additional sick leave may be authorized if she remains disabled after this period because of complications arising from the birth. Individuals who request additional sick leave will be required to furnish medical evidence of the need.

Appendix E-1

Academic Departmental Procedures for Affirmative Action

Each academic department, center, or laboratory has developed its own Affirmative Action Plan for academic positions, consistent with the Institute goals and the procedures outlined below:

1. Each department will continue to set annual goals and timetables, extending at least two years ahead, for the appointment of minorities and women in academic positions. These goals will be based on an analysis of the present and projected pool of candidates and on departmental needs.
2. Each department head will periodically inform all faculty and staff in the department of the policies, procedures, goals, and progress of the department's Affirmative Action Plan.
3. Annually, between June and August, each department will review and evaluate its plan in depth to determine the progress made toward achieving its goals. Problem areas will be identified, and the plan will be updated in terms of specific correctional action.
4. In seeking to fill academic positions, every effort will be made to recruit in such a way that women and minorities will have adequate opportunity to be considered. (Specifically, the practice currently in use by some departments—that of identifying a qualified candidate, then finding a position for that candidate—will be encouraged.)

Also, each academic department, with its School, will compile and continuously update a list of women and minorities who are potential candidates, including candidates from among MIT alumni, students, and current employees, as well as candidates identified through communication with professional societies, graduate schools, predominantly black and women's institutions, and other appropriate sources. This search should include the use of professional journals and other media, as well as educational search organizations and professional organizations that reach minorities and women in academic fields appropriate to the programs available at the Institute. The use of exchange programs and summer institutes will be explored in an effort to widen the search beyond traditional channels.

5. The Institute employment policies and practices shall not prohibit the simultaneous employment of two members of the same family (See Appendix D-1).
6. There will be full opportunity for staff appointments, including tenured appointments on the Faculty, for persons who may be able to devote only part of their time to their academic or staff duties during their child-rearing years (See Appendix D-1).

Appendix E-2

Affirmative Action Procedures for Non-Academic Employment

Each organizational unit at the Institute has developed its own Affirmative Action Plan, which will be consistent with the following policies and procedures:

1. Each organizational unit will continue to set goals and timetables extending at least two years ahead for the employment of minorities and women in each non-academic job classification. These goals will be based on an analysis of the present and projected number of qualified and qualifiable minorities and women in MIT's potential recruitment area, as well as on MIT's projected employment needs.
2. Each department will review its plan in depth and will evaluate the progress made toward reaching its goals on a yearly basis (between June and August, as described in Appendix E-1, item 3).
3. In seeking to fill positions, vigorous and systematic efforts will be made to ensure that women and minorities have adequate opportunity to be considered, based on the following recruitment and hiring procedures:
 - a) Records will be maintained in the Personnel Office of the receipt and disposition of all applications, and a summary will be forwarded to the Assistant for Minority Affairs and the Special Assistant for Women and Work on a quarterly basis.
 - b) At all major locations where interviews are conducted, notices shall be displayed that MIT is an "Equal Opportunity Employer," as prescribed by law.
 - c) Employment advertisements have been and will continue to be run regularly in publications with wide circulation to minorities and women. An ongoing evaluation of the effectiveness of these ads will be made by the Personnel Office. It will be a standard procedure to use the phrase "An Equal Opportunity Employer" in all advertisements and job postings. Whenever advertisements are placed in non-minority publications, the phrase "We are Actively Seeking Minority and Women Applicants" shall be used in the text or the ad.
 - d) In those areas where there is underrepresentation of minorities and women because of a history or pattern of exclusion and/or discrimination, preference in the applicant referral and selection process will be given to minority or women applicants if two candidates are equally qualified according to the concept of merit expressed in Section II, item 6.*
 - e) Procedures have been instituted, and will be periodically reviewed, to ensure that minorities and women (as well as other members of the MIT community) are considered for promotion or upgrading before a position is filled from the outside.*
 - f) A minorities and women applicant's file will be established in the Personnel Office. A similar career development file of those women and minorities seeking transfers or career advancement will be established. (This file will be available only to the employment interviewers in the Personnel Office.) A search of this file will be required as the first step in identifying candidates for all new appointments and other vacancies, temporary or otherwise.

* To be monitored by the Employment Officer in the campus Personnel Office and the Director of Personnel at the off-campus laboratories.

- g) Vacancies for all non-academic positions will ordinarily be posted,* and no offers or commitments may be made before the end of an application period which allows for a reasonable response to the posting by interested applicants; however, reasonable exceptions, such as, for example, in cases of internal reorganization, will be permitted. Such positions will be announced initially to the MIT community by the Personnel Office through publicizing all vacancies in *Tech Talk* and through posting them in a conspicuous place in the Personnel Office reception area. Vacancies will also be posted in other areas, when appropriate. All such positions and openings will also be announced to agencies in the community where minority and women applicants are registered.
- h) Supervisors will be apprised that positions are to be made equally accessible to all qualified candidates for job categories that have traditionally been preponderantly occupied by women and/or minorities.
- i) The supervisor will make the final hiring decision and will send the person's name to the personnel interviewer. Reasons for not hiring minorities and women deemed qualified or qualifiable by the personnel interviewer will be fully explained by the supervisor on the referral forms.

The personnel interviewer shall determine whether the requirements of the law and the policies of the Institute have been met, with respect to both external appointments and internal transfers. If so, the Personnel Office will process the appointment document.

No employment commitments can be made until these procedures have been followed.

- j) If the personnel interviewer suspects non-compliance with the Affirmative Action Plan, the matter will be reviewed with the Personnel Services Director who will resolve the matter with the department head before final personnel action is taken.
- k) All supervisors will be apprised that compliance with the policies of the Institute's Affirmative Action Plan is a responsibility for which they will be held accountable.
4. Promotion policies and practices will be administered in such a way as not to discriminate against minorities and women. In many cases, special efforts may be required to ensure that minorities and women are not at a disadvantage.
 - a) In some instances, a minority or woman applicant may not be fully qualified, but is judged to be highly qualifiable. Whenever possible, opportunity for "on-the-job" training will be provided.
 - b) When an employee applies for another position in the same department or elsewhere at MIT for which he or she is currently qualified, no covert or overt barriers will be placed in the way of his or her application for the position.
 - c) Possible career ladders for non-academic positions will be defined and disseminated as appropriate.
5. The Institute will initiate and continuously review career development programs that will provide upward mobility for its employees.

The following programs are now in operation:

- a) Tuition Assistance Program
- b) Technical Skills Training
- c) General Office Practices
- d) Administrative Development Program
- e) English as a Second Language

The conditions of eligibility for the various job training and career development programs will be clearly specified and disseminated to the MIT community through *Tech Talk* and other means, as appropriate. Employees will be continuously encouraged, through both departmental support and individual initiative, to investigate and enroll in any Institute or off-campus programs that are related to the employee's career development.

Appendix E-3

Student Related Affirmative Action Procedures

1. Admissions

In 1968 special efforts to recruit minorities, particularly Blacks, were begun at MIT. These efforts will continue and will be augmented by special efforts to recruit women.* *

- a) All persons involved in the process of reviewing applications will be kept aware of MIT's equal opportunity policies regarding admissions

* Posting and bidding requirements for unionized employees will be as specified in union contracts.

* * MIT has been coeducational since 1872 and has enrolled minorities, including Black Americans, since 1897.

- b) Admissions information and other official publications sent to prospective students, high-school counselors, and others will continue to reflect and emphasize the Institute's equal opportunity policy.
- c) Special admissions pamphlets and brochures will continue to be produced and distributed to assist in the recruitment of minority students.
- d) Admissions criteria for minority students will be reviewed periodically to help ensure that no minority applicant who has the potential for academic success at MIT is refused admission.
- e) The selection teams reviewing applications will continue to include minority and women faculty and staff.
- f) The Admissions Office, the MIT Alumni Office and the Educational Council, and other groups and offices engaged in recruiting students will continue to make special efforts to locate and recruit minority and women students; continuing efforts will be made to increase the number of women and minority Educational Counselors.
- g) Minority and women prospective students will be counseled on the full range of opportunities at MIT, particularly those fields in which they have been conspicuously underrepresented.
- h) The Institute will continue, when feasible, to invite prospective minority and women students from high schools near MIT to the campus for first-hand familiarization.
- i) Minority and women students at MIT will continue to aid the Institute in recruiting women and minority prospective students through personal contacts and, where appropriate, through visits to their hometown high schools.
- j) A Task Force on Educational Opportunity for Minorities, which was established in 1968 to develop new programs for the recruitment, admission, and support of minority students at both the graduate and undergraduate levels, will continue to function.
- k) In 1972 a Committee on the Needs of Women Students, convened by the Dean for Student Affairs, submitted a report on the status of women students at MIT. Though the Committee has since disbanded, attention will continue to be given to the implementation of policies and procedures recommended by that report.
- l) MIT will continue to support a Talent Search Program in Cambridge and to maintain an Upward Bound Program in cooperation with Wellesley College.
- m) MIT's recruitment efforts with respect to minority students will include an intensive search for prospective students who meet MIT's normal admissions criteria, as well as those who have potential but who need additional academic preparation (such as that provided by Project Interphase).
- n) A committee of women students, with the help of the Office of the Dean for Student Affairs, is currently preparing a booklet describing life at MIT for women, which will be used to aid in recruiting prospective women students.

2. Financial Assistance

- a) All services provided by the Financial Aid Office are available to every student without regard to race or sex. Strong efforts will be made to ensure that there are on the staff persons, including minorities and women, sensi-

tive to the special needs and circumstances of minority and women students.

- b) Financial assistance to all students, undergraduate and graduate, will continue to be provided in such a manner as not to discriminate against applicants on the basis of race or sex. All eligible minority and women students are encouraged to participate in scholarship, loan, and work-study programs.

3. Student Support Services

- a) The Institute will continue to encourage minority and women faculty, staff, and upperclassmen to help provide supportive services for minority and women students by serving as freshmen advisors, tutors, and informal resource personnel.
- b) Although all services in the Office of the Dean for Student Affairs are available without regard to race or sex, strong efforts will be made to ensure that there are on the staff persons, including minorities and women, sensitive to the special needs and circumstances of minority and women students.
- c) An Assistant Dean for Student Affairs will continue to serve, in part, as an advocate for the needs of undergraduate women.
- d) The Institute will continue its intensive efforts, through such programs as Project Interphase, to make educational opportunities available to those minority group members (and others) whose academic preparation differs somewhat from MIT's usual admission criteria. Such programs will be reviewed on an annual basis to help ensure that they are meeting the students' expressed needs. Project Interphase includes: 1) search and selection procedures directed toward bringing such people to MIT; 2) special introductory academic programs, including counseling, during the summer preceding the freshman year; and 3) special arrangements for financial assistance, as required.

4. Student Activities and Housing

- a) Rooms or apartments in Institute-supported housing are made available to all students in a non-discriminatory manner. There is no restriction on admission of women based on available campus housing.
- b) Landlords participating in the Institute's off-campus housing program must submit a non-discriminatory pledge issued by the Massachusetts Commission Against Discrimination before their offerings may be listed with the Community Housing Service. Any realtor who refuses to sign the pledge or who has a just cause complaint issued against him or her will be ineligible to have his or her rentals listed in the office files. Complaints presented to the Housing Office will be turned over to the Massachusetts Commission Against Discrimination for appropriate action.
- c) Although the Institute encourages all of its students to participate in the wide range of social and cultural activities sponsored by the Institute, special efforts will continue to be made to help ensure full participation in Institute life by minorities and women.
- d) All social clubs and fraternities supported by the Institute will be required to submit a written non-discrimination pledge to the Office of the Dean for Student Affairs.
- e) The Institute will encourage women students

to participate fully in athletic activities of their choice.

- f) The Athletic Department has appointed a Director of Women's Athletics (increasing the number of full-time female instructors to two) and recently published a booklet entitled "Athletics for Women at MIT."
- g) The use of MIT athletic facilities will continue to be made equally available to all members of the MIT community, regardless of race or sex.
- h) The Institute will continue its policy of not recruiting any student because of his or her athletic capabilities.

5. Student Placement

It is the policy of the Placement Office to ensure not only the equitable treatment of graduating minority and women students in finding employment, but also to help ensure that employers using the services of the Placement Office recruit graduating students for all positions in their company without regard to race or sex.

- a) Each employer seeking to hire MIT graduates is requested to:
 - i. provide proof that the organization is an equal opportunity employer as defined by Executive Order 11246;
 - ii. whenever possible, send minority and/or women recruiters who are familiar with the employer's priorities and commitments with respect to equal opportunity;
 - iii. hire undergraduate minority and women students for summer internship programs when possible.
- b) Each company or business representative inquiring about MIT graduates will continue to be apprised of MIT's equal opportunity placement procedures.
- c) Companies are encouraged to distribute literature that expresses their commitment to equal opportunity for minorities and women in all of their job categories.
- d) The Placement Office will continue to work with the Graduate School Office, the Assistant for Minority Affairs, the Special Assistant for Women and Work and the Personnel Office of the Institute to keep minority and women graduates informed of career opportunities at MIT and at the off-campus laboratories.
- e) The monthly schedule of visiting company recruiters will be circulated to academic and administrative offices and posted on bulletin boards in areas frequented by minority and women students.

6. Graduate Student Support

In cooperation with the Graduate School Office and the Committee on Graduate School Policy:

- a) All academic departments offering advanced degrees will be encouraged to recruit minority group members and/or women to the faculty from their graduate programs and will be expected to monitor continuously their progress. Departments should appoint such students to positions as research assistants and teaching assistants and should make their policy known to all of their faculty members.
- b) Present admissions and financial aid policies will be reviewed and modified, where appropriate, to be sure that they do not discriminate against women applicants with children.
- c) All information on grants, loans, scholarships, and fellowships will be posted in a manner accessible to all inquiring students.

Appendix F

Statistical Summary of MIT Employment Representation of Minorities and Women as of May 31, 1972, and November 1, 1970

MIT Report to the Office of Civil Rights, Department of HEW, Employment as of May 31, 1972																		
Institute Summary																		
Classification Level	Total		Race Statistics						Sex Statistics									
	Count	%	Am. Ind. Count	%	Negro Count	%	Oriental Count	%	Span. Am. Count	%	Total Min. Count	%	Other Count	%	Female Count	%	Male Count	%
Admin. Staff	362	100			15	4	1				16	4	346	96	75	21	287	79
DSR Staff	2019	100			19	1	70	3	10	1	99	5	1920	95	185	9	1834	91
Exempt	830	100			27	3	5	1			32	4	798	96	158	19	672	81
Biweekly	2140	100	4		140	7	30	1	35	2	209	10	1931	90	1733	81	407	19
Hourly	2451	100			201	8	13	1	25	1	239	10	2212	90	210	9	2241	91
Other	51	100			2	4	1	2			3	6	48	94	12	24	39	76
Total	7853	100	4		404	5	120	2	70	1	598	8	7255	92	2373	30	5480	70
Faculty	904	100			8	1	47	5	5	1	60	7	844	93	23	3	881	97
Other Academic	1105	100			35	3	76	7	23	2	134	12	971	88	214	19	891	81
Grand Total	9862	100	4		447	5	243	2	98	1	792	8	9070	92	2610	26	7252	74

MIT Report to the Office of Civil Rights, Department of HEW, Employment as of May 31, 1972

Campus	Race Statistics												Sex Statistics					
	Total		Am. Ind.		Negro		Oriental		Span. Am.		Total Min.		Other		Female		Male	
Classification Level	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Professors	456	100			3	1	20	5	2		25	6	431	94	8	2	448	98
Associate Professors	239	100			3	1	19	8	2	1	24	10	215	90	6	3	233	97
Assistant Professors	209	100			2	1	8	4	1		11	5	198	95	9	4	200	96
Subtotals, Faculty	904	100			8	1	47	5	5	1	60	7	844	93	23	3	881	97
Instructors	98	100					2	2	1	1	3	3	95	97	15	15	83	85
Technical Instructors	45	100			2	4			2	4	4	9	41	91	1	2	44	98
Sen. Research Assoc.	17	100											17	100	2	12	15	88
Research Assoc.	200	100			5	3	36	18	3	2	44	22	156	78	30	15	170	85
Adminis. Officers/Asst.	60	100					1	1			1	1	59	99	16	27	44	73
Doctors, Medical	88	100			2	2					2	2	86	98	9	10	79	90
Senior Lecturers	24	100											24	100			24	100
Lecturers	86	100			6	7	3	3	1	1	10	12	76	88	5	6	81	94
Directors	10	100											10	100			10	100
Associate Directors	12	100											12	100	1	8	11	92
Assistant Directors	6	100											6	100	2	33	4	67
Librarians	47	100			3	6	2	4			5	11	42	89	39	83	8	17
Coaches	11	100					1	9			1	9	10	91	3	27	8	73
Other Academic Staff	401	100			17	4	31	8	16	4	64	16	337	84	91	23	310	77
Subtotals, Academic	1105	100			35	3	76	7	23	2	134	12	971	88	214	19	891	81
Administrative Staff	362	100			15	4	1				16	4	346	96	75	21	287	79
DSR Staff, Technical	623	100			5	1	35	6	7	1	47	8	576	92	130	21	493	79
DSR Staff, Non-Tech.	47	100			1	2			1	2	2	4	45	96	7	15	40	85
Exempt, Administrative	140	100			2	1	1	1			3	2	137	98	80	57	60	43
Exempt, Technical	172	100			13	8					13	8	159	92	4	2	168	98
Biweekly	1696	100	4		116	7	28	2	32	2	180	11	1516	89	1417	84	279	16
Hourly, Non-union	246	100			10	4	1		6	2	17	7	229	93	49	20	197	80
Hourly, Union	1126	100			132	12	6	1	13	1	151	13	975	87	130	12	996	88
Other	51	100			2	4	1	2			3	6	48	94	12	24	39	76
Institute Grand Totals	6472	100	4		339	5	196	3	87	1	626	10	5846	90	2141	33	4331	67

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MIT Report to the Office of Civil Rights, Department of HEW, Employment as of May 31, 1972

Administrative Unit: Vice President, Research
Department: Draper Laboratory

Classification Level	Race Statistics												Sex Statistics					
	Total		Am. Ind.		Negro		Oriental		Span. Am.		Total Min.		Other		Female		Male	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
DSR Staff (Tech)	677	100			9	1	16	2			25	3	652	97	27	4	650	96
DSR Staff (Non-Tech)	47	100											47	100	7	1	40	99
Exempt	159	100			6	4	2	1			8	5	151	95	5	3	154	97
Biweekly	202	100			16	8	2	1	1		19	9	183	91	138	68	64	32
Hourly (Non-union)	57	100			1	2	1	2			2	4	55	96	1	2	56	98
Hourly (Union)	456	100			31	7	2				33	7	423	93	13	2	443	98
Total	1598	100			63	4	23	1	1		87	5	1511	95	191	12	1407	88

MIT Report to the Office of Civil Rights, Department of HEW, Employment as of May 31, 1972

Administrative Unit: Vice President, Research
Department: Lincoln Laboratory

Classification Level	Race Statistics												Sex Statistics					
	Total		Am. Ind.		Negro		Oriental		Span. Am.		Total Min.		Other		Female		Male	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
DSR Staff	625	100			4	1	19	3	2		25	4	600	96	14	2	611	98
Exempt	359	100			6	2	2				8	2	351	98	69	19	290	81
Biweekly	242	100			8	3			2		10	1	232	99	178	74	64	26
Hourly	566	100			27	5	3		6		36	6	530	94	17	3	549	97
Total	1792	100			45	3	24	1	10	1	79	4	1713	96	278	16	1514	84

MIT Report to the Office of Civil Rights, Department of HEW, Employment as of November, 1970

Institute	Race Statistics										Sex Statistics							
	Total		Am. Ind.		Negro		Oriental		Span. Am.		Total Min.		Other		Female		Male	
Classification Level	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Professors	458	100			5	1	19	4	2		26	6	432	94	4	1	454	99
Associate Professors	256	100			2	1	14	5			16	6	240	94	5	2	251	98
Assistant Professors	233	100			1		8	3	2	1	11	5	222	95	8	3	225	97
Subtotals, Faculty	947	100			8	1	41	4	4		53	6	894	94	17	2	930	98
Doctors, Medical	83	100			2	2					2	2	81	98	10	12	73	88
Instructors	116	100			1	1	3	3	1	1	5	4	111	96	11	9	105	91
Tech. Instructors	38	100			2	5			1	3	3	8	35	92	1	3	37	97
Sen. Research Assoc.	14	100					1	7			1	7	13	93	1	7	13	93
Research Associates	199	100			1	1	32	16	5	3	38	19	161	81	32	16	167	84
Adminis. Officers	27	100											27	100	5	19	22	81
Adminis. Assistants	13	100											13	100	5	38	8	62
Senior Lecturers	46	100											46	100			46	100
Lecturers	108	100			6	6	3	3	2	2	11	10	97	91	8	7	100	93
Directors	4	100											4	100			4	100
Assistant Directors	1	100											1	100			1	100
Librarians	55	100			3	5	2	4			5	9	50	91	44	80	11	20
Coaches	24	100			1	4	1	4			2	8	22	92	1	4	23	96
Other Academic Staff	363	100			3	1	28	8	8	2	39	11	324	89	69	19	294	81
Subtotals, Academic	1091	100			19	2	70	7	17	2	106	10	985	90	187	18	904	82
Administrative Staff	364	100	1		11	3					12	3	352	97	53	14	311	86
DSR Staff, Technical	1703	100			16	1	59	4	11	1	86	5	1617	95	158	9	1545	91
DSR Staff, Non-Tech.	180	100			2	1					2	1	178	99	16	9	164	91
Exempt, Administrative	183	100			5	3	3	2			8	4	175	96	73	40	110	60
Exempt, Technical	571	100			18	3	4	1	1		23	4	548	96	49	9	522	91
Biweekly	2102	100	1		93	4	35	2	26	1	155	7	1947	93	1735	83	367	17
Hourly, Non-union	325	100			17	5	1		2	1	20	6	305	94	61	19	264	81
Hourly, Union	2140	100			178	8	10		28	1	216	10	1924	90	146	7	1994	93
Other	92	100			5	5					5	5	87	95	28	30	64	70
Institute Grand Totals	9698	100	2		372	4	223	2	89	1	686	7	9012	93	2523	26	7175	74

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MIT Report to the Office of Civil Rights, Department of HEW, Employment as of November, 1970

Campus	Race Statistics										Sex Statistics							
	Total		Am. Ind.		Negro		Oriental		Span. Am.		Total Min.		Other		Female		Male	
Classification Level	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Professors	458	100			5	1	19	4	2		26	6	432	94	4	1	454	99
Associate Professors	256	100			2	1	14	5			16	6	240	94	5	2	251	98
Assistant Professors	233	100			1		8	3	2	1	11	5	222	95	8	3	225	97
Subtotals, Faculty	947	100			8	1	41	4	4		53	6	894	94	17	2	930	98
Doctors, Medical	83	100			2	2					2	2	81	98	10	12	73	88
Instructors	116	100			1	1	3	3	1	1	5	4	111	96	11	9	105	91
Tech. Instructors	38	100			2	5			1	3	3	8	35	92	1	3	37	97
Sen. Research Assoc.	14	100					1	7			1	7	13	93	1	7	13	93
Research Associates	199	100			1	1	32	16	5	3	38	19	161	81	32	16	167	84
Adminis. Officers	27	100											27	100	5	19	22	81
Adminis. Assistants	13	100											13	100	5	38	8	62
Senior Lecturers	46	100											46	100			46	100
Lecturers	108	100			6	6	3	3	2	2	11	10	97	91	8	7	100	93
Directors	4	100											4	100			4	100
Assistant Directors	1	100											1	100			1	100
Librarians	55	100			3	5	2	4			5	9	50	91	44	80	11	20
Coaches	24	100			1	4	1	4			2	8	22	92	1	4	23	96
Other Academic Staff	363	100			3	1	28	8	8	2	39	11	324	89	69	19	294	81
Subtotals, Academic	1091	100			19	2	70	7	17	2	106	10	985	90	187	18	904	82
Administrative Staff	364	100	1		11	3					12	3	352	97	53	14	311	86
DSR Staff, Technical	546	100			5	1	35	6	11	2	51	9	495	91	117	21	429	79
DSR Staff, Non-Tech.	49	100			1	2					1	2	48	98	7	14	42	86
Exempt, Administrative	102	100			3	3	2	2			5	5	97	95	59	58	43	42
Exempt, Technical	171	100			11	6	1	1	1	1	13	8	158	92	4	2	167	98
Biweekly	1652	100	1		79	5	31	2	24	1	135	8	1517	92	1420	86	232	14
Hourly, Non-union	247	100			15	6			2	1	17	7	230	93	56	23	191	77
Hourly, Union	1194	100			129	11	5		26	2	160	13	1034	87	127	11	1067	89
Other	73	100			4	5					4	5	69	95	27	37	46	63
Institute Grand Totals	6436	100	2		285	4	185	3	85	1	557	9	5879	91	2074	32	4362	68

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Appendix G

(This Appendix, which shows examples of MIT employment advertisements, is included with complete copies of the Affirmative Action Plan on file in locations listed in the Preface.)

Social Events

Friday Afternoon Club**

Music, conversation and all the cold draft you can drink. Fri, 6pm, the Thirsty Ear in Ashdown basement. Admission: \$1 men, 50 cents women. Must be over 18.

Muddy Charles Pub**

Join your friends for music, beer, wine, snacks, conversation at the Muddy Charles Pub, 110 Walker. Hours: Mon-Fri, 11:30am-2pm and 4-7:30pm; Sat, 7-12pm. Nightly specials will include: Mon, all wines 25 cents; Tues-Thurs, free pretzels and chips. Call GSC, X3-2195.

SCC Pot Luck Coffeehouse*

Live entertainment Fri-Sat, 8:30pm-12m. Student Center Mezzanine Lounge. Free coffee, cider, doughnuts. Sponsored by Student Center Committee. Volunteers to perform or otherwise help out, call Paul Mailman, X9626 Dorm, or Doug Fried, X8767 Dorm.

Movies

Film and Lecture Series

Architecture 4.097. Antonioni's *Red Desert* Wed, Apr 11, 2pm, Rm E21-010. Followed by Bill Arrowsmith, BU, speaking on "What has Greek Drama Got to Do with the Movies?" 7pm, Rm E21-010.

Humanities Movies

Humanities 21.03. *Wuthering Heights*, Rm 4-370. Humanities 21.05. *Battle of Algiers*, Rm 10-250. Wed, Apr 11, 7pm.

Humanities Movie

Humanities 21.317. *The Woman's Film*, Thurs, Apr 12, 7pm, Rm 54-100.

Z

LSC. Fri, Apr 13, 7pm & 10pm, Rm 26-100. Tickets 50 cents, MIT or Wellesley ID.

Bridge on the River Kwai

Student Center Committee Midnight Movie Series. Fri, Apr 13, 12m, Sala de Puerto Rico. Free. MIT or Wellesley ID.

The Graduate

LSC. Sat, Apr 14, 7pm & 9:30pm, Rm 26-100. Tickets 50 cents, MIT or Wellesley ID.

Cleopatra (1934)

LSC. Sun, Apr 15, 7pm, Rm 10-250. Tickets 50 cents, no IDs.

The Cabinet of Dr. Caligari

Humanities 21.299. Mon, Apr 16, 7pm, Rm 10-250.

The Pumpkin Eater

Humanities 21.317. Mon, Apr 16, 7pm, Rm 54-100.

King Lear (Scotfield)

Humanities 21.012. Tues, Apr 17, 7pm, Rm 10-250.

The Caretaker

Humanities 21.03. Wed, Apr 18, 7pm, Rm 10-250.

Member of the Wedding

Humanities 21.316. Wed, Apr 18, 9pm, Rm 4-370.

Film and Lecture Series

Architecture 4.097. Pauline Kael, film critic for *The New Yorker*, will speak. Wed, Apr 18, 2pm, Rm E21-010. Followed by screening of *The Earrings of Madame De*, 7pm, Rm E21-010.

The Hellstrom Chronicle

LSC. Fri, Apr 20, 7pm & 9:30pm, Rm 26-100. Tickets 50 cents, MIT or Wellesley ID.

Rosemary's Baby

Student Center Committee Midnight Movie Series. Fri, Apr 20, 12m, Sala de Puerto Rico. Free. MIT or Wellesley ID.

Music

Chamber Music Program

Works by Gabriele, Mozart, Pierre and Hindemith presented by the Brass, Woodwind, Saxophone, and Horn ensembles. Wed, Apr 11, 8:15pm, Kresge. Free.

Noonhour Concert*

"Music for a While" with Rufus Hallmark, tenor; Joel Cohen, luteist and John Cook, harpsichordist. Thur, Apr 12, 12n, Chapel. Free.

Noonhour Concert

Sonata recital. April Showers, flute, and Susan Shao, harpsichord. Thurs, Apr 19, 12n, Chapel. Free.

Glee Club

Rehearsals. Works by Stravinsky, Brahms, Mozart, Schubert. Tues, Wed, Thurs, 5pm, Kresge.

Theater and Shows

Ruddigore (Gilbert and Sullivan)

Presented by the MIT Musical Theater Guild. Thurs, Fri, Sat; Apr 19, 20, 21; 8pm, Kresge Auditorium. Tickets: \$3; \$2.50 with MIT or Wellesley ID.

Dance

Dance Workshop

Presents 9 week courses in Modern, Afro-American and M/J/B dance. For information, Chris Peterson, 492-6983.

Folk Dance Club*

International, Sun, 7:30-11pm, Sala. Balkan, Tues, 7:30-11pm, Student Center Rm 491. Israeli, Thurs, 7:15-10:15pm, duPont T-Club Lounge. Afternoon dance break, Fri, 12:30-1:30pm, Bldg 7 Lobby.

Yoga Class

Beginners class. Fri, 5:45pm, Bldg 10-340. For information call Ei Turchintz, 862-2613.

Kundalini Yoga

Classes: *beg, Mon & Fri, 1pm, duPont Wrestling Room, Tues & Thurs, 3pm, McCormack Green Lge; Intermed, Mon, 6:30pm, McCormack Green Lge. Enis Singh Vlug, 436-3753.

Exhibitions

Fritz Scholder's Paintings and Lithographs of American Indians
Hayden Gallery and Hayden Corridor Gallery. April 13-May 5. The artist will be present, Fri, Apr 13, 8pm-10pm. Hayden Gallery is open 10am-4pm, Mon-Sat; Corridor Gallery is open all the time.

Music Library Exhibit

Photographs of early instruments up to 1600. Daily, Rm 14E-109.

Hart Nautical Museum*

Exhibits include "Ocean Engineering Summer Laboratory Projects 1971 and 1972," and "Tugs and Towing." Bldg 5, first floor.

Athletics

V Tennis

Colby. Fri, Apr 13, 3pm, duPont Tennis Court.

Hvy Crew

Columbia. Sat, Apr 14, F-9:50am, JV-10:30, V-11:10am. Pierce Boat House.

MV Sailing

Open regatta. Sat, Apr 14, 11:30am, Sailing Pavilion.

V Baseball

Middlebury. Sat, Apr 14, 2pm, Briggs Field.

V Lacrosse

Amherst. Sat, Apr 14, 2pm, Briggs Field.

MV Sailing

Geiger trophy. Sun, Apr 15, 9:30am, Sailing Pavilion.

JV/F Baseball

Harvard. Mon, Apr 16, 3pm, Briggs Field.

MV Sailing

Oberg trophy. Mon, Apr 16, 9:30am, Sailing Pavilion.

JV/F Lacrosse

Phillips Exeter. Wed, Apr 18, 3pm, Briggs Field

V Lacrosse

Holy Cross. Fri, Apr 20, 3pm, Briggs Field

F Tennis

Belmont Hill. Fri, Apr 20, 3pm, duPont Tennis Court

Rugby

University of Vermont. Sat, Apr 21, 1pm, Briggs Field.

Women's Tennis Team

Mon-Fri, 7:30-8:30pm, Tennis Courts. For information, Chris, X3-2913.

Religious Services and Activities

The Chapel is open for private meditation from 7am to 11pm every day.

Campus Crusade for Christ/College Life*

Family time, fellowship and teachings from God's Word. Fri, 7-9:30pm, Rm 1-132.

Christian Bible Discussion Group*

Thurs, 1pm, Rm 20B-031. Call Prof. Schimmel, X3-6739, or Ralph Burgess, X3-2415.

Christian Study Group

Meeting to study God's Word and the lives of Christian men. Sun, 9:30am, McCormick Green Room. For information, 494-8778.

Christian Science Organization*

Tues, 7:15pm, Rm 8-314. Meetings include testimonies of healing.

Divine Light*

Discourses on the knowledge of Shri Guru Maharaj Ji. Mon, Wed, Fri, 7:30pm, Rm 4-159.

Hillel Services*

Mon-Fri, 8am, Rm 7-108; Fri, 8:15am, Chapel; Sat, 9am, Chapel.

Hillel Classes

Hebrew, Wed: Beg 6pm; Intermed 5pm, Rm 1-203; Adv 1pm, Rm 5-231. Basic Judaism, Kathy Green, Wed, 8am, Hillel Library. Yiddish, Thur, 7pm, Rm 1-242. Mekhilta lectures, Fri, 12n, Hillel Library. Talmud, Beg, Mon-Tues, 8pm; Adv, Sun, 12n, Wed, 8pm.

Islamic Society*

Prayers, Fri, 12:15pm, Kresge Rehearsal Rm B. Discussions on the Qur'anic interpretations of various aspects of life, Sat, 4pm, ISC Lounge, Walker 2nd floor, coffee served.

Protestant Worship Service*

Sun, 11am, Chapel.

Roman Catholic Masses

Chapel, Sun, 9:15am, 12:15pm, 5:15pm; Tues, 5:05pm; Wed, 4:30pm; Fri, 12:05pm.

Vedanta Society*

Services, Fri, 5:15pm, Chapel. Followed by discussion hour, 5pm, Lobdell Dining Room.

Westgate I & II Bible Study

Wed, 8pm, Westgate I, apt 1202. For information, 494-8405 or 494-8778.

United Christian Fellowship*

Christians for dinner, food, fellowship. Wed, 5pm, Walker (at sign of the fish). Followed by singing, praying, sharing meeting, 6pm, Rm 14E-303.

Zen Society*

Meditation meetings. Mon through Fri, 8-9am, Chapel. Call 492-4945.

Announcements

Weekend bus tickets to Wellesley College now on sale at the MIT Student Center Coffee House. Schedules available.

MET Opera Tickets

Tickets are now available for those who ordered. Call ahead, X3-4885, before picking up at the Technology Community Association, Stu Ctr, 4th Floor.

Student Center Library's Recreational Reading Collection

Includes Gothic fiction, science fiction and miscellaneous popular titles, now on loan. Books may be returned by interdepartmental mail. Browsing Library, Stu Ctr Rm W20-500.

Premed Students

Richard Saunders, associate dean and Bob Lee, MIT, S.B. '72. Thurs, Apr 19, 4pm, Rm 4-146.

Softball Games

The Campus Patrol challenges any Dorm or Fraternity to a game of softball. Contact: Officer Elderd, X3-2997.

Summer Work Permission for Foreign Students

The immigration authorities have extended permission to grant summer employment to foreign students. Application forms may be obtained from Mrs. Ellen Lacroix, Foreign Students Office, Rm 3-107.

Dining Service

Wed, Apr 11

Lunch: Beef stew
Dinner: Italian Festival

Thurs, Apr 12

Lunch: Seafood creole w/rice
Dinner: Super-special sirloin strip steak

Fri, Apr 13

Lunch: Macaroni & cheese au gratin
Dinner: Stuffed Flounder w/tomato sauce

Mon, Apr 16

Lunch: Chicken chow mein
Dinner: Roast veal w/dressing & gravy

Tues, Apr 17

Lunch: Hot turkey sandwich w/gravy
Dinner: French fried filet of sole w/tartar sauce

Wed, Apr 18

Lunch: New England franks, beans and brown bread
Dinner: Mexican Fiesta

- * Open to the public
- ** Open to the MIT community only
- *** Open to members only

Send notices for April 18 through April 27 to the Calendar Editor, Room 5-111, Ext. 3-3279, by noon Friday, April 13.

New UROP Listings

Summer UROP

UROP is receiving proposals for summer support. Participation is limited to undergraduates who are continuing ongoing UROP projects. Support for research and personal support will be awarded on a matching basis through the usual UROP proposal procedures.

EG&G, Inc.

Salem, Mass.
The Technical Products Group of EG&G would like to work with undergraduate students and faculty members on these suggested projects: (1) Low Starting Voltage Flashtubes, which involves studying flashtube operating mechanisms and design requirements which permit performance with low voltage, low cost circuit elements (less than 400 volts); (2) Guided Arch Flashtube Characterization, which involves performing spectroradiometric measurements of the light output of specific guided arc flashtube types; (3) Flashtubes for Dye Laser Optical Pumping Applications, which includes the performance of parametric life tests on a number of lamp design variations to establish arc stability and determine light output at selected wavelengths during life and involve a heat balance study. The projects should begin now with a possibility of continuing during the summer.

Physics Department

The editors of the American Journal of Physics are interested in learning more about the readers of the Journal and their interests. The project would involve the development of a questionnaire, the writing of an introductory article and eventually the analysis of the data collected. The project would enable a physics major with interest in teaching to learn a great deal about the community of college physics teachers. An article in the Journal would be a logical consequence to the project. Interested students should contact Ed Taylor, Room 20C-231, Ext. 3-6040.

Earth and Planetary Sciences Department

The National Science Foundation funded a Student-Originated Studies proposal in the Earth and Planetary Sciences Department in the area of "Chemical Mass Balance in Estuaries." The project will include the study of chemical and biological processes going on within estuarine systems by following the course of various chemical species through the system and identifying their major sources and sinks. Undergraduates with backgrounds in chemistry, geology, and environmental science should contact Amy Ng, Student Project Director, Rm. 54-1327, Ext. 3-5757 (daytime) or 494-9215.

Blue Cross: What It Covers

Following is the first in a series of Question and Answer articles on MIT's Blue Cross-Blue Shield coverage. This section highlights the most frequently asked questions about Blue Cross—the hospital benefits. Questions on Blue Shield—the physician benefits—and the \$50,000 Extended Benefits plan and general membership information will be discussed in future issues. Answers have been prepared by the MIT Benefits Office in cooperation with Blue Cross-Blue Shield.

Q. What does the Blue Cross and Blue Shield Master Medical Plan pay toward a subscriber's hospital bill?

A. Basically, a person's hospital bills can be broken down into two areas: (1) bills incurred while a bed patient in the hospital (in-patient); (2) bills incurred while not a bed patient in a hospital (out-patient)

In-patient—Blue Cross pays full coverage in a semiprivate room for an unlimited number of days in a general hospital and 60 days in a mental hospital. The hospital's charges for special services are also covered in full at the semiprivate rate for an unlimited number of days.

Out-patient—Blue Cross pays full coverage for the hospital's special services for the diagnosis or treatment of a disease or injury. Services related to pregnancy, birth control, sterility, and routine physical examinations are not covered.

Q. What are hospital special services?

A. The most common hospital special services are:

- (1) Use of operating, recovery, accident, or other special rooms and the equipment.
 - (2) All tests and examinations including laboratory, X-ray, electrocardiographic, electroencephalographic, and psychological.
 - (3) Use of special equipment on the hospital premises, such as incubators, inhalators, respirators, oxygen tents, anesthesia supplies.
 - (4) Drugs and medications that are commercially available.
 - (5) Appliances which are an integral part of a surgical procedure, such as artificial hip joints, bone plates, nails, pacemakers and pins, but excluding artificial eyes and limbs, and hearing aids.
- Many more categories and examples of special services can be found by consulting your Master Medical Certificate.

Q. If I were admitted to a hospital and the semiprivate rate were \$100 per day, what would this plan pay?

A. It would pay the full semiprivate charge, plus the full cost of special services.

Q. What if they put me in one of those expensive intensive care units?

A. Blue Cross would pay the full cost of the intensive care unit for an unlimited number of days.

Q. You talk about an "unlimited number of days." I've heard that there's an overall \$50,000 limit, so that actually "unlimited number of days" doesn't mean that much.

A. There is no limit on the amount of benefits for hospital room and board or special services in a general hospital, in-patient or out-patient.

Q. Does this full hospital coverage apply to maternity admission also?

A. No, Blue Cross will provide \$100 towards hospital charges for normal deliveries (including routine care of the newborn), but FULL semi-private room and board coverage will be paid for caesarian or severe complications.

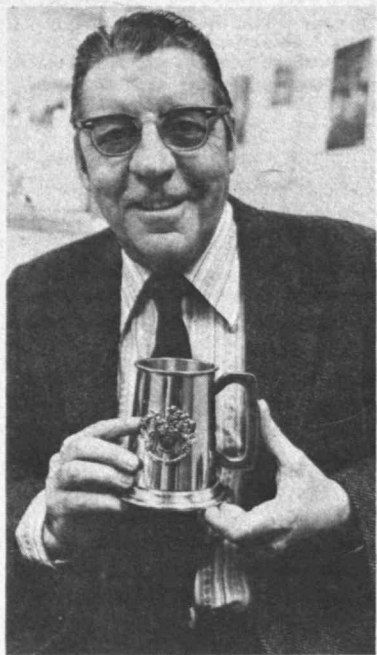
(The newborn child shall be entitled to benefits only when the child weighs five pounds or less, undergoes a major surgical procedure, has an acute inflammatory disease requiring isolation and special treatment; or has a congenital or acquired defect or condition which requires immediate intensive treatment.)

Q. If I'm hospitalized out of state, how will I be covered by Blue Cross?

A. Hospital benefits that you receive out of state will be the same as the benefits you would receive in Massachusetts. If you are admitted as an in-patient, simply present your certificate number to the admitting office and a claim will be submitted directly through the local Blue Cross Plan. You may be requested to pay for treatment received in the hospital outpatient department. If so, receipted bills for out-patient hospital care should be submitted to Massachusetts Blue Cross for reimbursement.

Q. I've noticed that in your answer you continually refer to Blue Cross as paying this and paying that. What about Blue Shield?

A. Blue Cross is the division of Blue Cross and Blue Shield whose responsibility is to pay for all covered services provided by hospitals.



James G. Cronin was recently honored by the MIT Employees Federal Credit Union for long and outstanding service to the loan committee. Mr. Cronin, an administrative assistant in the Accounting Office, has served as a member of the credit committee since 1957 and as its chairman since 1961. In that time more than 75,000 loans totaling \$63 million have been reviewed by the committee. Mr. Cronin was cited by MIT Credit Union president Henry Leonard at the Credit Union's recent banquet for "the human feeling he has shown for each individual case" that came before the committee.

Payroll Offers Savings Bond Deduction Plan

MIT is again offering employees a payroll deduction plan for the regular purchase of US Savings Bonds.

Information fliers and payroll deduction authorization cards will be inserted in paycheck envelopes this month. Persons who wish to start a bond saving program or increase their present allotments should complete an authorization card and return it to payroll officers on campus, at Draper or Lincoln Laboratories.

Series E bonds, purchased at 75 percent of face value, are available in denominations of \$25, \$50, \$75, \$100, \$200, \$500 and \$1,000.

Interest on bonds held to maturity (five years and ten months) is 5½ percent and is not subject to Massachusetts income tax. A person who saves \$18.75 per month will accumulate bonds worth \$1,250 in five years or \$1,545 in six years.

Club Seeking Items for Sale

MIT members of the Cambridge Business and Professional Women's Club are asking for donations of old books, records, bric-a-brac, jewelry and hand-crafted objects for the annual White Elephant Sale to be held Wednesday, April 18 in the Bush Room (10-105).

The proceeds for this sale will benefit a scholarship fund established in memory of Olive Libitz of the MIT Accounting Office. Each year the fund is awarded to a Cambridge high school girl in need of financial aid for continuing education.

Donations of sale items may be made to Mrs. Julia McLellan, sales chairman, Ext 3-4770, Room 3-103. Clothing items will not be included in the sale.

CLASSIFIED ADS

Ads are limited to one per person per issue and may not be repeated in successive issues. All ads must be accompanied by full name and Institute extension. Only Institute extensions may be listed. Members of the community who have no extensions may submit ads by coming in person to the Tech Talk office, Room 5-111, and presenting Institute identification. Ads may be telephoned to Ext. 3-3270 or mailed to room 5-105. The deadline is noon Friday.

For Sale, Etc.

Leica M3 body, double stroke, exc cond, \$155; 50mm f 1.4 fummilux blk, mint; 90mm f 2.8 tele Elmarit blk, mint \$150. R. S. Taylor, X3-5142.

Scott spkrs S-15's, hi quality 3 way bkshelf spkrs, walnut, \$100 or w/ swap for gd pw amp. Tom, X8357 Dorm.

Model train equip, gd selection, new last Xmas, barely used, value \$33, yours for \$20. Madge, X3-5731.

Pr c89-13 tires on Fairlane wheels, \$20; girls sz 10 fig skates, \$5. Dan, X7777 Linc.

Dual 1215-S w/ADC VLM, power base & D.C., \$100; Scott amp, 40+40 watts, \$60. John, X0247 Dorm.

Dyna SCA-35, \$45, Sony TC-250, \$60. Dan, X0259 Dorm.

Sansui 350 A rcvr, yr old, perf cond, 20/20 RMS into 8 ohms, once \$215, now \$150. Ralph, 266-2968.

Webster's 7th Coll dict, Morrison & Boyd Organic Chemistry. Mark, 868-4890, morn.

Port Singer elec sew mach, w/att, old but in gd cond, \$15. X3-6306.

Gdyr polyglas, glassbeltd sz J78-15, br new, \$41 orig, now \$25. Hal, X5809 Linc.

Fisher KX100 amp, BSR changer, pr of Creative spkrs, \$165 or best. Mike 661-9698 evgs.

Bowmar calculator, 6 mo old, \$85, Henry, X3-4223.

Pr rectilinear III, hi/boys, 4 mo old; pr Rossignol 100s 90cm; sz 10 boots, used once. Lloyd, X9465 Dorm.

Man's winter snorkle coat, blue, lg, never used, 60% off, \$12 or best. Richard, X9275 Dorm.

Stereo 8 tape player for car, 2 spkrs, br name auto R, exc sound \$50. Margaret, X3-2566.

Westinghouse a c, 6,000 BTU, never used, guar, \$120, Adrian, X3-6267.

Vox supve continental organ, dual kboard, stereo/mono output, tremulo, octave base, port, \$799. Mark, X3-7836.

AR turntbl w/new cart, extras, \$50; Advent advocate 101; Dolby \$85. 868-7287.

Used women's clothing & accessories, sz 7-13, young styles, low prices, Ron, X8-1233 Draper evgs.

Kessel skis w/tyrolia step ins, used once, perf cond, \$95. Marilyn, X3-4112.

Pentax III camera, 50mm, f 1.2, Zeiss sonnar lens, \$40; Kelty bk pack, \$40; refrig w/freezer, \$35, pert stereo, \$30. Dick, X3-4170.

Gd spare tire 6.50x14, \$5; pr snow studs 7.75x14, \$25; pr snow studs, 8.25x14, \$30; snare drum, cymbal, stands, \$5; electric stove, GE, \$80. Shirley, X365 Linc.

Hand Reel lawn mower, \$10; pr of 8.25x15 R Prowler wh w tires, gd tread mtd on Olds rim, \$20; '61 Jeep frame, comp w/rear axils & springs, gd as trailer, \$5. Mac, X3-7273.

Pr snows on Opel wheels, \$15; 2 Corvair wheels, \$5. Bill, X3-6269.

Stereo reverb unit for car R, \$12. Bill, X366 Linc.

Jacobson ride-a-mower, 26", 5 hrs p, \$200; 15' alum canoe, equip, \$140. Larry, X56186 Linc.

Concord DBA-10 Dolby sys, \$80 or best; BASF LP 35LH, 1800' lo noise/hi output recording tape, \$5 list, \$4/reel w/fact seal. Dave, 494-8609.

Tech designed unbreak lock, never used, \$20. Ronda, X3-7271.

Gdyr polyglass belted tires, 2pr, sz C78-14, -3 K, orig \$150, now \$100 or best. Owen 646-0167.

Car stereo, 4 & 8 tr. \$45. Dave, X3-2176.

Lined drapes, 6' lg, \$10 ea; childrens' toys, equip, suitcases; lamps, tbls. Gunderson, X3-6085.

Sony TC-105A 4tr mono t/recdr, br new, \$80 or best. Chris, 494-8552 or X9462 Dorm.

Continental radial tire, 165x13, br new, for BMW, Capri, etc, \$25. Allen, 391-7448 evgs.

Stamp collection, US and foreign. Ken, X3-6385.

Marantz, Sony, Pioneer Electronics, recvrs, amps, tuners, 55 assort pieces, all factory sealed and warr, make offers. W. Shih, X3-3161 lve mesg.

Heathkit amp, assembled, Mod AA21D, sol st, full controls, \$150 or best. 625-8937.

Maytag apt sz washing mach, gold, exc cond, \$90. Diane Nester, Endicott Hse, 326-5151 days.

Tbl saw, \$40; cycle helmet, \$10; many new archit books, ½ price. Roy, 738-6663 evgs.

KLH Mod 20 stereo sys, exc cond, grt sound, orig \$400, now \$275. Doug, 536-4724.

Utility cabinet, br metal, \$20; aqua car bed, port, \$5, wh bassinnet, port w/ bedding, \$14; choc br 9'x12' rug, \$70, Fannon intercom, \$30. Mike, X3-2062.

Pentax Spotmatic SII, 50mm, f1.4, 135mm f 3.5, 3 filters collaps lens hood, less than 1 yr old, wxc cond, \$250. Don, X3-1826.

Advent 200 cass dk w/Dolby & Cro-2, exc cond, \$150. Kevin, X8265 Dorm evgs.

Bike bumper rack, cheap. Wayne, X3-2338 or 782-0539 evgs.

Golf shoes, sz 3½; Sears lawn edger and trimmer. John X8-2006 Draper.

Antique 18th cent bed, in old red paint w/cust matt and trundle bed, \$200. X147 Linc.

Listen to car tapes at home, 8 tr stereo player w/AM FM, spkrs. Call for ingfo, 494-9142.

Phillips bike, 3 spd, v gd cond, \$40; sm compact electrophonic stereo, trntbl, 2 spkrs, \$40; headphones, \$5; sm transistor R, Toshiba, \$10. Ted, X3-5305.

Kenwood 4140 rcvr, 24 watts RMS/channel, less than 10 mos old, exc cond, \$200; EPI 100 spkrs, 8 ohms, less than 10 mos, exc cond, \$125. Michael, 247-7790.

A C, 28000 BTU, self contained unit, mod CDC 0304-5, 208 volts, 22.8 amp, \$300. X3-4876.

Tickets—Pr of orchestra tickets for Weills "Mahogany" at Bost Opera Co, 4/13, \$20. Steven Weinberg, X3-6264.

Wet suit, man's sm, 3616" nylon lined. Bill Porteous, X3-4978.

Thorens turntbl, w/diamond elliptical cart, \$75 or best. Anita, X3-2049.

Sunbeam elec fry pan, \$10, GE toaster-oven, \$6; lg mans' Irish sweater, \$6; mans' lg winter coat, f length, \$8; empire f length dress, sz 8-10, \$6; lg wicker basket, \$2, more baskets. Pete, X3-5272.

LR set, authentic oriental, sofa, chairs, cof tbl, hand painted on laquer finish, \$650 negot. Call 494-9177 evgs.

Outboard motor, 25 hp, old, wked when last used, delivery negot, \$100 or best. Valdis, X3-5859.

Sm refrig, gd cond, \$45. Chuck, X0173 Dorm.

Tube type pw amp, 60 watts, RMS/ch, exc specs, new \$450, \$175 now. Chip, X3-1558.

Pr wooden desks, \$25 ea; R-100 batt charger; Resnor hter & other garage equip. Pete, X7284 Linc.

AR amp & tuner, 4 months, 2 yr warr; Royal 660 electric typwrtr, prof model w/carbon or cloth ribn clp, stand, spare ribns. Dan, X0801 Dorm.

Sharp TV, B&W, 19", port, exc cond, Call Ashok, X3-2943.

Realistis patrolman PRO-2 high-low communications recvr, \$65; 2 mtd 716-6 ply Delta snows, split rim- 6 lug for Chevy pick-up, \$40 ea. Don X8-3333 Draper.

Vehicles

'60 Rambler American, gd cond, \$60; Bost-Paris regular air ticket, \$100; apt: 3BRs, LR, lg K, n MIT, \$235. Robert Andresen, 492-4282.

'62 Ford Galaxie, new batt & exhaust, wiak gen, but str heart, body is solid and ugly, 82K, no offers over \$75. 969-5245.

'63 Buick Electra, runs, \$100 or best; '68 Opel Kadett wgn, rear end damaged, run cond, \$300 or best; 2 new tires, 15", best offer; Kwan, X3-4620.

'63 Plym Valiant, 2 dr, 6 cyl, auti, nds brakes, \$25 as is, \$75 if fixed; '64 Ford window van, 6 cyl, auto, gd cond, \$550. Paul, X8-1367 Draper.

'64 Comet 2 dr sedan, new tires, new tr, nds new batt, \$200. Alexander, X8833 Dorm.

'64 Olds Cutlass, solid body, eng nds wk, v cheap. X3-6604.

'64 Valiant stn wgn, 6 cyl, auto tr, \$100 or best, Gregor, X3-6934.

'64 Buick Electra, loaded w/extras, runs well, nds some work, \$100, wl negot. X8-3573 Draper.

'64 Olds F85, moderately gd cond, 65K, \$250. Jerry, X3-7404.

'64 Olds M, 4 dr, gd run cond, \$100. Call 232-8882 evgs.

'65 Buick Special convert, V6, p st, R, ht, \$225 or best. Martin Weinshink, X5470 Linc.

'66 Peugeot 404, 4 dr sedan, stand tr, 55K, gd run cond, new tires, 2 snows, minor body damage, \$200. 661-8532 evgs.

'66 Falcon 6, stand tr, nds wrk, \$275; '65 Olds Delta 88 4 dr hrd top, exc cond, tint wind/sh, p st & br, gd tires, \$575 or best, obth cars wrking. Dennis, X8-3333.

'66 Tempest custom, gd mech cond, exc transportation. Chuck, X8-3360.

'66 Plym wgn, p st & pbr, gd cond, \$400. David, X3-5829.

'66 VW bus, body poor shape, bed inside, \$150. Taylor, X8-1332.

'66 Karman Ghia, body bad, eng gd, \$100. Jim, X5897 Linc.

'67 VW sqbk, R, b gd run cond, 2 ext snows w/rims, \$550. Howard X5860 Linc.

'68 Chevy C-10 pick up, w/jewel camper cap, cabinets, auto tr, R, 65 K, \$1,300 or best. Lew, X673 Linc.

'68 Jeep Wagoneer, exc cond, recently overhauled, 4 wh dr, p st & br, auto tr, \$2000. Ted, 738-8047.

'68 Olds Cutlass supreme 350, p st, p br, auto tr, 2 dr, vinyl hd top, 4 radials, 2 sonws, superb cond. Dave, X3-6726.

'68 Chevy wgn, V8 at auto, \$750 or best; utility wgn, \$100. Call 391-2779 evgs.

'68 Plym Fury III, 318 cc, auto tr, R & h, p st, new tires, runs well body gd, \$875 or best. Sheila, X3-6394.

'68 Fiat 350 Spider conv, nw tires & top, gd cond, \$350. Deborah, X3-3610.

'69 Cougar, wh w/vinyl top, auto tr, p st, \$1,300. Judy, X3-6116.

'69 Plym, Barracuda, hd top Coupe, 8 cyl, 318 eng, 3 spd auto, p st, gd tires, 52 K, gf cond, orig owner. \$1,250. Nancy, X5344 Linc.

'70 Ford Maverick, 39 K, red, 2dr, stand tr, exc cond, \$1,300. Sergio, X3-5573.

'71 VW super beetle, sunroof, 18K, warr til 7/1, exc cond, \$1,685 or best. Gerhard, X3-6817.

'71 Adventurer hdtop tent trlr, slps 4, no stove, w/out K wquip byut 21 cu f storage space, 6 1/2 sq when closed, exc cond, used twice, spare incl, orig \$675, now \$500. D. Michael, X3-2925.

'71 Chevy giant wgn, 4 wh dr, factory a c, step-n-tow bumper, auto tr, p st & br, tilt steering eh, \$3850 w/pwr angling 7 1/2 Fisher plow, \$3,500 w/out. Joe Markowitz, X3-2054

'71 Saab Mod 96, exc cond, 32 K, \$1795. June, X7103 Linc.

'71 Pinto, 1600 eng, deluxe int, 29 K, \$1,100. Bob Bender, X3-4901.

'72 Olds 88, 4 dr sedan, all pwoer, exc cond, \$2,800. X3-2997 or 729-8516.

Corsair Travel Trailer, 17', slps 6, combo gas-elec refrig, \$1,200. John Waters, X8-3371.

'67 Honda cycle 305, \$300 or best. Steve, X0515 Dorm, It evgs.

'70 Kawasaki, mach III, gd cond, incl 3 helmets, ch & lock, cover, \$600. Bill, X3-2642.

'71 Kawasaki cycle 350 street-scrambler, \$525 firm. Tom, X3-5659.

'71 Honda 450cc street, mint cond, extras, \$875. Henrique, X3-7557.

'72 Honda XL 250, \$600. Ed Philbrick, X7838 Linc.

Honda CB450, nds some wk on gr eng. Mike, X3-4824.

Girl's 3 spd bike, looks beat up, rides fine, \$30 or best; wide tire, 10K, \$5. John, 354-8170.

Man's bike, 1 spd, barely used, \$40. Carol, X3-2292.

Sears Spider bike, 20" wheel, 4 yrs old, \$15. Earl, X8-1566 Draper.

Blue 3 spd girl's bike, 1 yr old, lk new, wicker basket, lock, \$70 new, \$40 now. Diane, X8647 Dorm.

Housing

Bedford 2 BR ranch, ideal loc, acre wooded lot, LR, DR, basement w/2nd B, 2 car gar, many extras, upper \$30's. Marilyn, X5378 Linc.

Belmont/Arl line, lg furn Rm w/K priv, pking, n T. X3-1783

Billerica, on Bedford/Billerica line, lf 8 Rm split, 3 or 4 lg BRs, 3 B units, lg LR, formal DR, eat in K, family rm, 2 frpls, gar, 3/4 landscaped wooded acre, low 40's. Brian, X5326 Linc.

Bos, recent remod Back Bay studio, carpeted w/sep K & B, \$185/mo incl util, Peggy, X3-1701

Brk, summer sublet, lg apt, 4 BRs, n T, \$350/mo. Call 738-6047.

Camb, summer sublet w/option to rener 9/1, 1 BR, 3Rms, furn, ht, \$160/mo incl util. Mara, X3-1857 or Dick X3-7412.

Camb, 3 BRs, n MIT avail 5/1, \$230; for sale: shelves, desks, bikes, snows, lamps, etc. Carlos X3-6221.

Camb, furn sublet, 6 Rms, dish w, garbage dis, storage space, avail 6/1-9/1 renewable, \$375/mo. 547-9728 evgs.

Harwich, wtfront, 2BRs, sleeps 7, K, LR, B, ht, beach w/rowboat. James, X3-2154.

Hyde Pk, 2 BRs, w w carpet, a c, pking, \$223/mo. Anthony Kondoleon, X8-4107 Draper.

Maine, summer rental, lux contemporary 3 BRs vacation hse, comp furn, on lg lake, n Saddleback Mt, inc canoe, spectacular view, many extras. X8-2577.

Northgate sublet 2 BRs, a c, dish w, disposal, carpet w w, \$235. X8-2694 Draper.

S Bos, studio, lght, airy, n beach, cabinet K, shower, 15 min to MIT, \$125. Anne, X3-5643.

Som, lg mod Br, a c, dish w, w w carpet, pking, ht, n Hvd Sq, quiet street, 5/1-9/1 renewable, \$205; w/ comp furnish avail. Arthur, X3-3237.

Som, nr City Hall, 1 BR furn apt, new bldg, free pking, a c, dish w, carpeted, rent negot- under \$180 w/util inc. John Hendricks, X3-5368

Som, summer rental, n Porter Sq, 2 BRs, mod, furn, a c, dish w, pking, \$225/mo plus elec. 623-1336.

Wellesley Hills, colonial, 4 BRs, LR, DR, den, fam rm, 1 1/2 B, yard, in \$40's. X3-4771.

Lost and Found

Lost: Gold wedding band, 4/2, if found, 646-5399 evgs.

Lost: 8.02 notebook lecture notes, Mon 3/19. Dave X0808 Dorm any time.

Lost: purse w/IDs, license, 4/5 bldg 9, reward. Adriana, X3-2013.

Animals

Siamese kittens fr beautiful affect parents, 4 blue pt, \$20; one choc pt, \$30. Jacky, X8-3389 Draper.

Free seal pt neut male Siamese, yr old. Jim, X8-3531 Draper.

Free pups, 1/2 Norw elkhound, 1/2 spaniel. Kolm, X3-5554.

Abandoned, yr old, blk & white, spayed fem cat, healthy gentle affect, mixes well w/other pets. John Ruenstein, X3-2030.

Siamese kittens, 8 wks old, free. Reuben, X3-2343.

Wanted

Rowboat, 14' or 16', Amesbury type, reas. Bob, X8-3396 Draper.

Visiting prof seeks furn 2 BRs minimum hse or apt for yr beg 7/1, \$250. Dr. P. F. Winkler, 6 Hillcrest Rd, Middlebury Vt. 05753.

Front bumper and grille for BMW 1600-2 or 2002. Ellen, X0357 Dorm.

Ford 16", pref split rim, bunk beds. Guy, X5597 Linc.

Southern Vt. vac home June or July weekly or mo rental, swim, secluded. X3-7187

Concord or environs, 1 BR apt by 5/1 fir wking couple w/no children. X7896 Linc.

Maple or oak dresser w/3 drws. David Stevens, X8-1565 Draper.

Rmmate, male, to shr 3 BRs, \$85 frpl, mod K, porch, 2nd fl, bk yd, pking, \$85/mo. Brian X3-7287.

Chess clock. Ben X8-3444 Draper.

Free or cheap; piano, desks, sofa, etc and baby furniture for newly est church. Wendy, X3-6089.

Solid used car, intermed sz, gd wking order, no frills. Jerry, X3-2380.

Land rover, Mod 109 pref. Carol, X3-4805.

Ride to NY city, Apr 20, return Apr 22 or 23. Fran, X3-1608.

Combo group to donate dancing music, for MIT/Boston Conservatory Student Vocal Recital, 5/12, lg receptive audience, gratitude, free drinks guaranteed. Lydia, X3-7294.

Corvette owners interested in joining active Corvette club. Joe X8-1593 Draper.

Young women to babysit in Boston, X3-7010.

Pr of fem rmmates seeks 3rd, own rm, quiet street, n Tufts, \$75/mo plus util. Andy, X3-7010.

Lifting weights and/or dumbbells. Fred Levins, X3-2871.

Apt w/2 BRs, encl yard, permanent beg 6/1. 491-4873.

Hse, Bedford environs for summer for grad couple w/2 infants, pref hse sitting. Chris, X3-5641.

Jewelry mking tools. Sandy X3-2036.

Rmmate for summer only, to shr 3 BRs, own rm, K, LR, frpl, Beacon St, avail 5/15, \$130. Denny, X3-5606.

Flute, to buy or rent. X3-7756.

Immed, choreographer for Peter Pan production in Dorch School. Karen, X3-4655.

Go cart, any cond. Ray, X8-2004 Draper.

Musicians to form rock band, serious about music & getting it together w/other musicians, exp unness, hrd wrk a must, esp nded: someone exp in forming rock bands. Marshall Burns, Rm 3-107, no phone.

Miscellaneous

Wl babysit full or pt/time in Westgate apt. 494-8738.

Wl do tech graphs for theses at reas rates, for charts, graphs, tech drawings call Enis, 436-3753.

Gen & Technical typing. X3-2138.

Furniture of all kinds built to order, reas priced. Dave Alexander, 232-7496 evgs.

Typing, theses & gen, IBM Selectric, reas. Wendy-Anne, X3-5115.

Wl do gen & thesis typing. Sharyn, X3-6025.

Simple jewelry designs in silver, reas prices. Rochelle, X3-1752.

Positions Available

These are some of the new positions received since the last Tech Talk ad. The Personnel Office is seeking individuals from within the Institute to fill these openings. Other avail positions are posted in the Personnel Office, E19-239.

Sr. Secretary V to Dean will schedule appointments, meetings; type manuscripts and correspondence; work with catalogue changes, special reports; keep records of all school appointments, promotions, and terminations. May also handle calculations on departmental and school budgets. Organizational abilities important to set priorities and make decisions.

Secretary IV to academic department head will be headquarters secretary and provide assistance to the Administrative Officer. Answer questions from students and visitors; maintain registration and grade records for department. Good typing and organizational ability required.

Secretary III or IV for two professors in life sciences; good typing skills for manuscripts, course material, correspondence; assist in maintenance of research grants. Familiarity with scientific vocabulary helpful.

Part-time Placement Counselor for Family Day Care Program will work with Child Care Coordinator to plan programs; will keep in touch with all parents in the program, help them get licensed and find the right care for their children; will keep records and statistics of participants in the program. The Counselor must be a skilled interviewer and knowledgeable about children and parents; enthusiastic, sensitive and perceptive to their needs.

Secretary V in high level administrative office will deal extensively with members of all elements of the Institute by phone and in person, coordinate very busy appointment calendar, compose and type correspondence, conduct library research, answer inquiries, set up meetings. Skills should be excellent; discretion, warmth, maturity, initiative important.

Secretary IV to professor and small research group in transportation and urban economics studies. Assist with administrative work on contracts; type proposals, manuscripts, class notes involving equations and tables; work on budgets; some manuscript editing. Shorthand and a background in economics preferred.

Secretary III in an independent project doing research in computer programming will type letters, documents, and reports from rough drafts; make travel arrangements, arrange meetings and handle other office procedures.

Secretary IV will type technical material; maintain student records, coordinate schedules of appointments and meetings; handle travel arrangements. There is a significant amount of telephone work and people contact.

Sr. Clerk III in schedules and publications office will handle room reservations and scheduling information. Type correspondence; keypunch master subject cards. Ability to work with details important.

Programming Consultant for the Information Processing Center to participate in the functions of the computing center's User Services Group which include the following:

- 1) *User assistance* - Assistance and consulting in programming information and debugging and tracking down special problems.
- 2) *User information* - Documentation of manuals, conducting seminars and short courses on special subjects, and special information searches.
- 3) *Technical & Maintenance Support* - Implementing and maintaining software items such as the debugging compilers and plotting packages. Applicants should have experience with large scale IBM 360 or 370 computers either as an applications programmer, systems programmer, or programming consultant. A thorough knowledge of JCL, FORTRAN, and other languages and documentation and communication skills are necessary qualifications.

Systems Programmer for Office of Administrative Information Systems to provide technical expertise on computer operating system and equipment configuration. Recommend optimum equipment, audit performance of data processing activities and develop methods of improving performance. Evaluate software requirements. Implements and maintains installation's operating system. Provides assistance to the Operations, Systems Development, and Programmer Departments in solving problems requiring technical expertise on installation's operating system.

Minimum two years experience as DOS/360/370 systems programmer required. Knowledge of software, COBOL, PL/1. Sysgen experience. Some knowledge of OS/360/370. For appointments please call X3-4251

Competition For Boit, King Prizes Opens

The Department of Humanities has opened competition for three annual writing prizes—the Ellen King Prize for Freshman Writing, the Robert A. Boit Writing Prizes, and the Boit Manuscript Prize.

The Ellen King Prize is awarded for writing in all categories. Only freshmen are eligible to enter the competition which offers a \$100 first prize and \$50 second prize.

All MIT undergraduates may enter the Robert A. Boit contest. Awards for writing in all categories include a \$125 first prize, two second prizes of \$75, two third prizes of \$45 and two fourth prizes of \$30.

The Boit Manuscript Prize is awarded to an undergraduate for a work or collection of substantial length, completed or in progress, which gives evidence of publishable quality. It carries a \$200 award.

All entries must be submitted to the Department of Humanities, Room 14N-409, by 5pm on Friday, April 20. Information and contest rules are available in Room 14N-409.

Murphy Award Names Sought

Nominations are being sought for the James N. Murphy Award which will be presented to an Institute employee at the Awards Convocation in May.

Established in 1967, the award is a memorial to the late Mr. Murphy for his contributions to community life at MIT. The award is given annually to an employee whose spirit and loyalty exemplify inspired and dedicated service, especially with regard to students.

Nominations in the form of a short letter will be considered by a committee of students and employees.

Letters of nomination must be received by Dean Robert J. Holden, Room 7-101, by Wednesday, April 25.

Whaley Author of 'Barbarossa'

Codeword BARBAROSSA by Barton Whaley, a research affiliate at the Center for International Studies, has been published recently by the MIT Press.

Dr. Whaley's book explores why Hitler's attack on Russia in June 1941 came as such a surprise to the world.

The book is based on secret World War II documents, including those of 50 intelligence services, and discloses the decisive role of counterespionage, code breaking and secret intelligence as one of the turning points in history.

4 Women Students Receive Alumnae Awards



Wendy Erb



Sandra Cohen

The Association of MIT Alumnae presented senior academic awards to four outstanding women students at a banquet held Tuesday, April 10. Recipients are: Sandra L. Cohen of Scarsdale, N.Y., who received the S.B. degree in management in February and is now assistant director of the MIT Admissions Office; Wendy E. Erb of Bloomfield Hills, Mich., a senior in management and mathematics who expects to enter law school in the fall; Jeanne Brenfleck Paskowitz of St. Louis, Mo., a senior in engineering curriculum who plans to continue her studies in computer sciences; and Ellen A. Spielman of Yonkers, N.Y., a senior in chemistry and life sciences, who hopes to enter medical school next year. The awards were presented by guest speaker Chancellor Paul E. Gray.

—Photos by Margo Foote



Ellen Spielman



Jeanne Paskowitz

Revised Plans Asked On Affirmative Action

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nical status developed in late March, Dr. Gray said. On March 27, MIT learned from the Air Force that a renewal contract would not be issued on April 1

Obituary

H. P. McCarthy, 83

Henry P. McCarthy, 83, MIT basketball coach from 1923 to 1948—who 50 years ago started the high school basketball tourney that is still known as the "Tech Tourney" because of its MIT origins—died last Friday, April 6, at Quigley Memorial Hospital in Chelsea.

His name was synonymous with the growth of interscholastic basketball in New England and he has been credited with creating a climate of interest which helped foster professional basketball in Boston. He was believed to have conducted more high school basketball tournaments—73—than anybody in the country. His first was the 1926 Tech Tourney held at MIT. He continued to direct the annual tourney, which moved to Boston Garden in 1944, until 1971.

Basketball statistician Bill Mokray said, "More amazing was the fact that Henry never missed seeing any of the hundreds of games. He was no figurehead."

A native of Worcester, Mr. McCarthy was graduated from Posse Normal School of Gymnastics. He coached basketball at Arlington, Winthrop and Revere high schools and was physical education instructor at public schools in Gary, Indiana, and Salt Lake City, Utah. He joined the MIT staff in 1922 and a year later was appointed director of physical training and basketball coach.

During his long career, Mr. McCarthy served as director of the New England Interscholastic Basketball Tournament, was a member of the Eastern Massachusetts Basketball Officials' Association, and served as president of the Boston Amateur Basketball Commission.

He is survived by his son, Henry P. McCarthy, Jr., of Peabody, and a sister, Mrs. Mary T. Pritchard of Arlington. Funeral services were held Monday, April 9, at the Church of the Holy Rosary, Point Shirley.

because HEW in Washington could not certify that MIT was in compliance with respect to the formal filing of a final plan. The following day, however, a contract from the Advanced Research Projects Agency was released after HEW told that agency it would not certify that MIT was not in compliance.

"Thus, the first word MIT received about its compliance status came from funding agencies and in a somewhat unclear fashion," Dr. Gray said.

The final plan, however, was completed promptly and placed on file with HEW's regional office in Boston, whereupon compliance was certified. Submitted were the plan itself, a progress report on women and minority employment over the last two years, and a full set of the present plans for all departmental units. HEW, Dr. Gray said, certified MIT to be in compliance, but requested that new and revised departmental plans, originally due July 1, be submitted by May 1.

HEW asked, Dr. Gray said, that individual departmental plans be made to include a set of goals and timetables for women and minority employment through 1974-75 as well as a utilization analysis of minorities and women by the department (as compared to the pool of available talent).

The summary plan for the overall Institute submitted last week, Dr. Gray said, included a summary of progress at the Institute over the past two years.

"With respect to Blacks," Dr. Gray said, "our progress report shows a net gain of one percent (of total employment), with modest gains in all job categories. Specifically, the number of Black faculty members increased from eight to 11. The overall gains fall short of our goals, however. With respect to women, the summary shows a net gain of two percent (of total employment), with gains reported in all job categories except biweekly. The number of women faculty members increased from 17 to 35."

Holiday Reminder

The Institute will be closed Monday, April 16, in observance of Patriot's Day. Holiday pay provisions will be in effect on that date.

Mumford to Give 2 Free Lectures

Lewis Mumford, distinguished author in the fields of technology and culture and Visiting Institute Lecturer at MIT for six weeks between April 1 and May 15, will present two free lectures open to the public during his stay at MIT.

The first lecture, "Technology in Human Culture," will be given Tuesday, April 17, and will deal with Mr. Mumford's own work over a lifetime spent exploring the union of science and art in thought and action. The second lecture, "The Lesson of the Master," will be Tuesday, May 1, and will deal with the work of Patrick Geddes.

Geddes, a Scottish biologist whose life spanned the turn of the century and with whom Mr. Mumford worked, is generally acknowledged to be one of the intellectual founders of urban planning, and viewed society and its environment as analogous to biological organisms in their need for balance and evolution.

Both lectures, which are being presented under the auspices of the Department of Urban Studies and Planning, will be given in Room 9-150, from 3 to 5pm.

Mr. Mumford's most recent book, *Interpretations and Forecasts, 1922-1972*, is scheduled for publication on April 25, and presents a broad selection of his writing over a fifty year period.

Feshbach

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editor of "Annals of Physics."

In 1954-55 Professor Feshbach was a Guggenheim Fellow and in 1962 a Ford Foundation Fellow at CERN, the European center for nuclear research. Later this month Dr. Feshbach will receive the Tom W. Bonner Prize of the American Physical Society for his contributions to the theory of nuclear reactions.

Professor Feshbach is a Fellow of the American Physical Society and a member of the National Academy of Sciences, the American Association for the Advancement of Science.

UNUSUAL PROFESSORSHIP

Harvard, MIT Appoint Mathematician G. E. Sacks

Dr. Gerald E. Sacks, a leader in the emerging field of mathematical logic and a faculty member at MIT since 1966, has been appointed to a rare joint professorship in the Departments of Mathematics both at MIT and at Harvard University.

Announcement of the appointment was made jointly by Acting Dean Franklin Ford of the Harvard Faculty of Arts and Sciences and Walter A. Rosenblith, MIT Provost.

Dr. Sacks becomes only the third person in recent history to hold a joint professorial appointment on the faculties of the two universities. Others are the distinguished linguist, Dr. Roman Jakobson, and Dr. Irving M. London, director of the MIT-Harvard Joint Program in Health Sciences and Technology whose joint professorial appointment is between MIT and the Harvard Medical School.

The intellectual area of mathematical logic, which draws both from mathematics and from philosophy, has developed significantly over the past 15 years, and has had a primary focus in the Cambridge area under the stimulus of faculty members at both MIT and Harvard. As a joint professor with appointment at both universities, Professor Sacks will be able to contribute significantly to the continued vigorous development of the field in the Cambridge area and to the continued education of a growing number of graduate students attracted to the field.

Professor Sacks, according to colleagues at Harvard and MIT, is ideally suited to a joint role because he is a master teacher at the graduate level, a scholar whose interests cover the full spectrum of logic and who uses graduate courses effectively to stimulate and complement his own research.

As a joint professor, Dr. Sacks will divide his time equally between the two universities, teaching classes, interacting with faculty colleagues and supervising and guiding graduate student research at MIT and Harvard.

Dr. Sacks has made numerous original contributions to mathematical logic covering the broad areas of set theory, model theory and recursive function theory. He

has published more than 20 professional papers and three books on aspects of mathematical logic in the past decade, was an invited speaker at the 1970 International Congress of Mathematicians in Nice, France, and has twice been invited to give major addresses at meetings of the American Mathematical Society. He is known as a gifted lecturer and two of his books—*Higher Recursion Theory* and *Saturated Model Theory*—are based on sets of his lecture notes. He is a senior editor of the *Journal of Symbolic Logic* and a member of the Omega Group, which is the editorial board for a new series of books to be published by Springer-Verlag, Heidelberg, Germany, entitled *Perspectives in Mathematical Logic*.

A native of Brooklyn, N.Y., Dr. Sacks received the bachelor's and master's degrees in electrical engineering simultaneously from Cornell University in 1958 and his Ph.D. degree there in 1961. He was at the Institute for Advanced Study at Princeton, N.J., in 1961-62, became assistant professor at Cornell in 1962 and associate professor there in 1964. He served as a Visiting Associate Professor of Mathematics at MIT in 1966-67 and was made professor of mathematics at MIT in 1967. His title was changed to Professor of Mathematical Logic in 1971.

Deutsch

(Continued from page 1)

There is an almost Faust-like sweep to this sequence. I like to think that it was insight or at least intuition—rather than serendipity—that led Bergman to this format.

There are six interviews in the program. Each man (why no woman?) speaks briefly. Each talks about the substance of his work, of course. But mostly they talk about their motivations.

Perhaps my view was colored by the fact that I know several of the men—and much of their work—quite well.

But for me "Searching the Unknown"—for a change—comes across as a series of revealing conversations with people who are believable human beings engaged in a believable and comprehensible human enterprise—science.