

TECH TALK
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Save this paper

Included in this week's paper as an adjunct to the Institute Calendar is the IAP Timetable for the first three days of the Independent Activities Period (January 9-11) plus listings of pre-IAP events. Students are advised to save the timetable because only a limited supply of copies of this paper will be available when IAP begins.

The January issues of Tech Talk will carry the subsequent IAP Timetables. The deadline for listings in the January 18 and 25 Timetables is January 11. All listings are coordinated through the IAP Office, Rm 7-108. Listings independently submitted to Tech Talk will not be accepted.

Holiday notice

The Institute will be closed Monday, Dec. 26, and Monday, Jan. 2, 1984, in observance of the Christmas and New Year's Day holidays. Regular holiday pay practices will be in effect.

Faculty meeting

A regular meeting of the faculty will be held Wednesday, Dec. 21, at 3:15pm in Huntington Hall (Rm 10-250). On the agenda is:

—A motion to recommend to the Corporation the establishment of the degree of Master of Science in real estate development in the School of Architecture and Planning.

Enrollment close

Open enrollment in two of MIT's four health care plans will end December 30. Applications for the MultiGroup Health Plan or the Harvard Community Health Plan from anyone who is not a new employee must be received by the Benefits Office by that date, with memberships to be effective January 1, 1984. The next opportunity to enroll in these two plans will be May-July 1984, with memberships effective August 1.

Applications for the MIT Health Plan and the Blue Cross/Blue Shield Master Medical Plan are accepted during any month, with memberships effective the first of the following month.

CAP room change

Because of continuing renovations to the Bush Room, the Committee on Academic Performance end-of-term grade review meetings with advisors and department heads will be held in Rm 3-133 January 10 and 11.

First nighters

Nine artists from the Center for Advanced Visual Studies will take part in three events of Boston's eighth annual First Night, the citywide New Year's Eve celebration of the arts. First will be a special video event, for and about children, featuring locally made video segments and a giant multiple image wall with faces from the audience and some interactive control by the audience. It will take place in Hynes Auditorium 3-5:30pm. CAVS artists participating in this and in the major "Video Magic" event, 7-11pm also at Hynes, include: Betsy Connors, Sarah Dickinson, Dov Eylath, Rus Gant, Sarah Geitz, Vin Grabill, Otto Piene, Ellen Sebring and Aldo Tambellini, with former CAVS affiliate Robert Lewis. The third event with an MIT connection will be a Copley Square laser sculpture by Horst Baumann of Dusseldorf, who is affiliated with CAVS's Sky Art Conferences and who will be assisted by CAVS fellow Paul Earls. Information number: 424-1699.

Lerman appointed director of Athena

By ROBERT C. Di IORIO
Staff Writer

The appointment of Professor Steven R. Lerman of the Department of Civil Engineering as director of Project Athena has been announced by President Paul E. Gray and Provost Francis E. Low.

Dr. Lerman, head of his department's Transportation Systems Division, is a leading researcher and teacher in discrete choice models of urban and regional location and traveler behavior, transportation systems analysis and econometric analysis of travelers' decisions from nonrandom samples. He has been involved in Project Athena from the earliest stages of the experimental program to integrate the next generation of computers and interactive graphics into undergraduate and graduate education in all five of MIT's Schools. He is currently the chairman of the

Athena Committee on Resource Allocation for the School of Engineering and a member of the Athena Executive Committee.

The project has major support from Digital Equipment Corp. and IBM Corp., which are providing nearly \$50 million in equipment, software, service maintenance, support, research grants and on-campus personnel over the next five years. Over that period, the project will install a network of 2,500-3,000 advanced personal computers spread across the MIT campus to enhance the teaching of the entire MIT curriculum. As part of this project, an internal grant program providing financial support to the faculty in applying computers to enhance education will be developed.

Professor Lerman's appointment was recommended by Dean Gerald L. Wilson of the School of Engineering, chairman of the Pro-

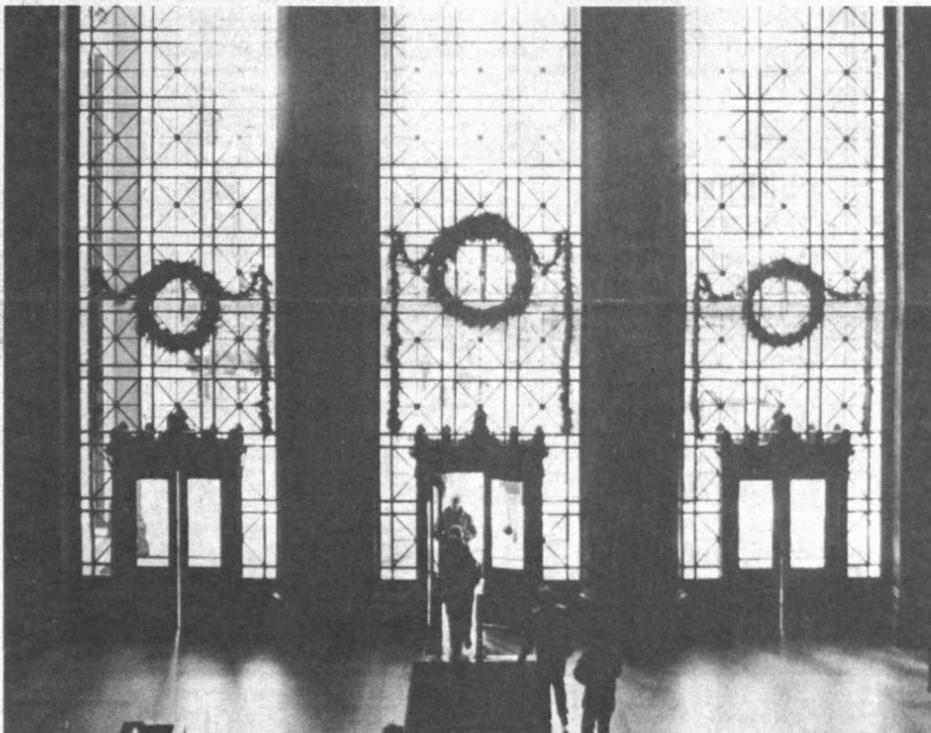
ject Athena Executive Committee. Professor Lerman will report to the provost and will work closely with Dean Wilson in his capacity as chairman of the Project Athena Executive Committee.

As director, Professor Lerman will be responsible for meeting the educational and "coherence" goals of Project Athena as set forth by the executive committee. Developing "coherence" among the suppliers' computers will enable all machines to function with the same operating system interface and use the same computer languages. In addition, it will allow the sharing of software resources for education by various elements of the MIT community.

The director is also responsible for maintaining communication with the MIT community, especially with the existing educa-

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Welcome, winter solstice



Perkin-Elmer, Lockheed join to provide aerospace facility

The Hall L. Hibbard Computer-Aided Aerospace Design Facility has been established at MIT through gifts from Perkin-Elmer Corp. and CADAM, Inc., a subsidiary of Lockheed Aircraft Corp.

Dr. Jack L. Kerrebrock, Richard Cockburn Maclaurin Professor and head of the Department of Aeronautics and Astronautics, said Perkin-Elmer has donated hardware and CADAM has donated software for the new center. Each company gift is valued at about \$250,000, Professor Kerrebrock said. Lockheed also is providing a \$50,000 operating fund for the first five years.

The new design facility is named for Hall Hibbard, the aviation pioneer whose career spanned the decades from wooden airplanes to earth-orbiting satellites as chief engineer

and top executive of Lockheed, which he joined in 1932. Mr. Hibbard is a member of the Class of 1928 at MIT.

Mr. Hibbard joined Lockheed as assistant chief engineer. He became one of only a dozen employees of the then struggling Burbank, Calif., company. As Lockheed's chief engineer and engineering vice president (1933-56), Mr. Hibbard had responsibility for such notable aircraft as the all-metal Electra transports of the 1930s, the Hudson bomber, the P-38 Lightning fighter, the P2V Neptune antisubmarine patrol plane, the F-80 Shooting Star, which was the Air Force's first operational jet, the F-94 Starfire all-weather fighter, the Constellation transport series and the Hercules airlifter. In 1955-56 he was acting

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Athena seminars to begin in January

A Project Athena Seminar Series, focusing on topics related to computers in higher education, will begin in January and continue through the spring term.

During January, the series will include talks by Dean Gerald L. Wilson of the School of Engineering; Dr. Douglas Van Houweling, vice provost for computing at Carnegie-Mellon University, and Dr. Andries van Dam, chairman of the Department of Computer Science at Brown University. All three universities have recently launched major efforts to involve computers in education.

Dean Wilson will speak at 3:30pm Tuesday, Jan. 10, on Project Athena. He is chairman of the Project Athena Executive Committee.

Dr. Van Houweling will speak at 3:30pm Tuesday, Jan. 17, on Computing Strategy at CMU.

Dr. van Dam will speak at 3:30pm Tuesday, Jan. 24, on IRIS and Experimental Classrooms at Brown.

At 3pm Monday, Jan. 30, the IAP Project Athena Seminar Series concludes with a discussion on The Role of Computers in Education: An Open Forum. There will be no speaker. Members of the community are invited to express their opinions on this topic. The IAP Policy Committee, a sponsor with the Dean for Student Affairs and the Provost's Office, initiated this forum recognizing the need for an examination as the use of computers expands at MIT.

All of the seminars will be held in the Edgerton Lecture Hall, Rm 34-101. For additional information, call x3-1300.

Leacock film premieres

A new film by Richard Leacock, professor of cinema in the Department of Architecture, was premiered in Paris earlier this month at the Autumn Festival of the Arts, dedicated this year to honoring notable personalities in the film world.

His latest documentary, *Lulu in Berlin*, consists of a Leacock interview with legendary early screen actress Louise Brook, intercut with scenes from the movies she is discussing.

Also being honored at the festival were Joelle de Mott and Jeff Kreines who got their start with Professor Leacock at MIT's Film/Video Section in the early 70s. Among other mentions in the international press, Professor Leacock was discussed in a Variety piece as one of the "personalities due in for homage."

NEH to support Erdely folklore research

By CHINA ALTMAN
Staff Writer

Stephen Erdely, MIT professor of music, is one of three American scholars who have received a substantial grant from the National Endowment for the Humanities to work on a project investigating the use of folklore for the preservation of identity.

It will enable him to expand his long-standing researches into the Hungarian folk song, an expression of a particularly vital tradition extending in time beyond 899 when the nomadic Magyars ended their wandering by settling in the land which became modern day Hungary.

The project, "Identity Preservation Through

Traditionalization; A Comparative Study in Modern Hungary and the United States," will study changes and developments in folk songs sung by two major groups: those who stayed in the Hungarian countryside and Hungarians who came to this country but retained their own culture.

There will be three American and three Hungarian researchers, with Professor Erdely working as the musical folklorist for both sides. The other five are anthropologists and folklorists, including Dr. Linda Degh, president of the American Folklore Society and also Distinguished Professor at the University of Indiana at Bloomington.

"We hope to arrive at some broad philo-

sophical principles about those who retain their own culture in their own country and also in an alien culture," he said.

This past summer Professor Erdely was a guest of the Hungarian Academy of Sciences for five weeks, spending much of his time in Galga, northeast of Budapest, where the Paloc group have retained their traditions and costumes.

"I felt there would be a gradual cropping of new song types because of industrialization and technical advances such as cars and other urban influences," he said.

"My first impressions partly supported this view," he said, "But as I got into the villages

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INSTITUTE NOTICES

*—Open to public
**—Open to MIT Community only
***—Open to members only

Announcements

Retirement Plan for Staff Members of Massachusetts Institute of Technology Notice to Eligible Employees

We are applying to the Internal Revenue Service for a determination that the Retirement Plan for Staff Members, as amended by a proposed restatement of the plan, will continue to qualify under the Internal Revenue Code. The following notice is required by the IRS as part of the qualification process.

Plan Name and Number. Retirement Plan for Staff Members of Massachusetts Institute of Technology. Plan Number: 002.

Applicant. Massachusetts Institute of Technology, 400 Main & Ames Street, Cambridge, Massachusetts 02139. Employer Identification Number: 04 2103594.

Plan Administrator. Administrative Committee, Room 4-104, Massachusetts Institute of Technology, 77 Massachusetts Avenue, Cambridge, Massachusetts 02139.

We will submit our application on January 11, 1984 to the Key District Director of the Internal Revenue Service at P.O. Box 1680, General Post Office, Brooklyn, New York 11202 for an advance determination as to whether the plan continues to qualify under section 401(a) of the Internal Revenue Code following certain proposed amendments to the plan. The Internal Revenue Service has previously issued a determination letter with respect to the qualification of the plan.

All employees who receive staff appointments at the Institute are eligible to participate except employees who fall within one of the following categories: visitors; naval, air and army officers and enlisted personnel assigned to the Institute for active duty; and employees in the Department of Air Science, Military Science and Tactics, and Naval Science. If you are eligible to participate in the plan, you are an interested party.

Rights of Interested Parties. If you are an interested party, you may submit to the Key District Director, at the above address, a comment as to whether the plan meets the qualification requirements of the Internal Revenue Code. You may instead ask the Department of Labor to submit a comment on your behalf to the Key District Director. Two or more persons may join in a single comment or request. If for any reason the Department of Labor declines to comment on any matter you raise, you may, individually, or jointly if the request was made to the Department jointly, submit comments on these matters directly to the Key District Director.

Requests for Comments by the Department of Labor. The Department of Labor may not comment on behalf of interested parties unless requested to do so by at least 10 employees who qualify as interested parties. If you request the Department to comment, your request must be in writing and must specify the matters upon which comments are requested. Your request must also include the name and plan number of the plan, MIT's name and address, and the number of persons needed for the Department to comment (i.e., 10 employees). A request to the Department of Labor to comment should be addressed as follows: Administrator of Pension and Welfare Benefit Programs, U.S. Department of Labor, 200 Constitution Avenue, N.W., Washington, D.C. 20216, ATTN: 3001 Comment Request.

Comments to the Internal Revenue Service. Your comments to the Key District Director must be in writing and received by him by February 25, 1984. However, if there are matters that you request the Department of Labor to comment upon on your behalf, and the Department declines, your comments on these matters must be received by the Key District Director on or before the later of February 25, 1984 or the 15th day after the day on which the Department of Labor notifies you that it declines to comment, but in no event later than March 11, 1984. A request to the Department to comment on your behalf must be received by it by February 5, 1984; or, if you wish to preserve your right to comment on a matter upon which the Department declines to comment, your requests to comment must be received by January 26, 1984.

Additional Information. Additional information concerning this application, including an updated copy of the plan and related trust, the application for determination, any additional documents dealing with the application that is submitted to the IRS, and material setting forth the rights of interested parties is available from Robert W. McQuillan, Room E19-667, 400 Main & Ames Street, Cambridge, MA 02139 during regular business hours for inspection and copying. A reasonable charge for the copying will be made.

Army ROTC Offers 2 and 3 Year Scholarships**—The MIT Army ROTC detachment can offer two-year and three-year scholarship (full tuition, fees and \$100/month stipend) competition to MIT students not currently enrolled in the Army ROTC Program. General criteria include good moral character, physical condition, and academic credentials. Applicants for the two-year scholarship who are majoring in engineering or physical science must have a minimum MIT GPA of 3.5 (3.3 if SAT score is 1100 or above); other majors must maintain a 3.7 minimum. Two-year scholarship winners must agree to attend an Army Basic Camp at Fort Knox, Kentucky for six fully paid weeks during the summer in order to make up the two years of military science courses previously missed.

Academic criteria for three year competitors will be based on consideration of MIT's pass-fail grading system. Three-year scholarship winners must agree to take the first two years of military science courses during the sophomore year. Scholarship cadets incur an obligation of four years on active duty; however, at the beginning of the senior year a cadet can request duty with reserve forces (US Army Reserve or National Guard) as a citizen-soldier (meetings one weekend per month and a two week Camp each summer) instead of full-time active duty. If selected for reserve forces duty, the obligation is eight years in the reserve components after an initial attendance at a three to six month Officer Basic Course. An anticipated 50 per cent of commissionees will be selected to serve in the Reserve Forces by 1989.

The Professor of Military Science has a limited number of scholarships to award at his discretion. Other students may enter a national competition. The MIT Army ROTC Detachment will assist in administrative processing and forwarding of nominations. If you are interested in an ROTC scholarship, please contact Maj. William B. Miller, Rm 20E-126, x3-4471.

February Degree Candidates, who have student loans administered by MIT will be receiving notices to schedule an Exit Interview with the Bursar's Office, Student Loan Department E19-225, x3-3341. These interviews are mandated by the US Office of Education and are required by the Institute to maintain good standing on the degree list. The notice also serves to activate the repayment status and terms of the loans.

Student Transcripts - Fees for student transcripts will no longer be accepted at The Bursar's Office. All transcript fees must be paid at the Cashier's Office, Rm 10-180.

Club Notes

MIT Frisbee Club**—Indoor Ultimate is here! Wednesdays 7-9pm, Sundays 12-2pm in the New Athletic Center (2nd Flr). All are welcome! Come play the hottest sport around.

International Student Pugwash, MIT Chapter**—Explore the role of science and technology in society through symposium, community projects, lectures, discussion groups and more. Grads, undergrads, faculty welcome. Call Robin 492-5517.

ACBL Duplicate Bridge at MIT*—Bridge games every Sat, 7pm; every Thur, Sun & Mon, 6:30pm, \$75 entry fee, Rm 407, Student Center. Lessons free w/entry at 6:15pm from Bridge Senior Masters. No partners necessary, all-welcome. Info, Rajan Batta, x3-6185, 494-1968, 876-4515 or Dorm x5-9563.

MIT/DL Bridge Club*—ACBL Duplicate bridge, Tues, 6pm, W20-473. Info call Gary Schwartz, x8-1484, Draper or Sam Smith, 244-4679.

MIT Aikido Club**—meets Mon, Wed, & Thurs, 5:30pm; Tues & Fri 7:30am, DuPont exercise room. Aikido is a non-competitive Japanese martial discipline. Beginners welcome.

MIT UHF Repeater Association*—is available to supply radio communications for MIT and Public Service organizations and events. Contact Bill Chiarchiaro, 3-8573 or 876-1494.

MIT Hobby Shop**—Complete facilities for wood working metal working & darkroom. Hours: Mon-Fri, 10am-6pm, Wed, 10am-9pm. Fee \$15/per term students; \$25/per term community. Info call x3-4343, Rm W31-031.

MIT Outing Club*—Plan hiking, camping, canoeing, ski trips, rental equip avail, Mon & Thurs, 5-6pm, Student Center, Rm W20-461.

MIT Nautical Association**—Memorial Dr. opposite Walker Memorial, x3-4884. Pavillion closed until end of spring break. Any winter events posted on MITNA bulletin board in Infinite Corridor.

Nightline**—a student-run hotline open every evening of the term, 7pm-7am. If you need information about anything or you just want to chat, give us a call. We're here to listen. x3-7840.

MIT Women's Soccer Club**—Play women's soccer. Beginners and all levels of experience welcome. Practice three times a week—work out all your aggressions, have fun, make friends and get exercise. For additional info: Leslie or Inge, x3-6799.

The Boston Wu-Tang Chinese Martial Arts Association**—meets Mon. 8-10pm, Lobby 13 and Thurs. 8-10pm, T-Cup Lounge. Beginners welcome.

MIT Tae Kwon Do Club**—Tae Kwon Do is a Korean martial art. Meetings Sundays, 4pm, T-Club Lounge; Mon-Wed, 6pm, Burton Dining Hall; Fri, 6pm, T-Club Lounge. For info call Charlie Park, 225-9123.

Scuba Club**—The club sponsors dives throughout the year with practice sessions in the pool every other week. For further info contact Jon Powell x3-6031 or see our notice board at the pool.

MIT Guild of Bell Ringers*—meets Mondays, 6:30-9pm, 2nd floor Lobby 7, for change ringing on handbells. We also ring the tower bells at Old North Church. Beginners are welcome. Contact Eric Brosius, Rm 2-270, x3-3773 for more information.

Richard C. Maclaurin Lodge, AF & AM**—MIT Masonic Lodge, Cambridge Masonic Temple, 1950 Mass. Ave. Porter Sq. Regular meetings third Wednesday of month, 7pm. First Degree Exemplification, Weds, Dec. 21, 7pm. For information contact Bruce Wedlock, x3-4895.

Religious Activities

The Chapel is open for private meditation 7am-11pm daily.

Christian Science Organization at MIT*—Weekly Testimony Meeting, Thurs, 5:15pm, Rm 4-145.

The Lutheran Ministry & Episcopal Ministry—Weekly service of Holy Communion Wed, 5:10pm, Chapel. Supper, scripture study & discussion follows at 312 Memorial Drive. Call x3-2325 or x3-2983.

Meditation and Discourse on the Gita**—Swami Sarvagatananda of the Ramakrishna Vedanta Society of Boston. Sponsored by MIT Vedanta Society. Fridays, 5:15-6pm, MIT Chapel.

Tech Catholic Community*—Roman Catholic Weekday Masses Tues, Thurs, 5:05pm; Fri, 12:05pm; Sunday Masses, 9am, noon, 5pm MIT Chapel; Charismatic Prayer Group, Monday, 6:45pm, Rm 1-114; Prayer Through Scriptures, Monday, 5pm, Chapel; Bible Study Group, Thursday, 7:30pm, Ashdown 6th Lounge.

Charismatic Prayer Group*—Mon eves, 6:45, Miller Rm 1-114. Pot-luck supper followed by prayer meeting, Bible sharing, music & praise. Jim Mahoney, x3-3074.

Islamic Society*—Daily prayers, Ashdown House (basement), 5 times a day. Call 225-9837 for schedule. Friday prayer, Ashdown House 1-2pm, Khutba starts at 1:15pm, congregation at 1:45pm.

MIT Seekers Christian Fellowship*—Park Street Church Seekers Teaching and Worship Time, Sundays, 4:45pm, enjoy our biblical teaching, worship and sharing at Park Street Church, right in front of the Park Street T stop. MIT Seekers leave from McCormick at 4pm. Come join us.

MIT Baha'i Association*—Baha'i Firesides, regular informal discussions on the Baha'i faith. Call Brian Aull, x3-2112 for more information.

Campus Crusade for Christ**—Family time, 7:15pm, Fri, eves, Rm 37-252, (Marlar Lounge). Fellowship, scripture teaching, prayer, singing, refreshments & fun. Tues, prayer time, 7:30-9am, W20-441, Student Center. Call Dorm x3-9153.

United Christian Fellowship**—(Inter-varsity chapter) Large group fellowship every Friday at 7:30pm in Moore Rm 6-321. Call Chavonne DL 8537 for more info.

Lincoln Brookery Noon Bible Studies*—Tues & Thurs, Kiln Room III, Rm 239. Annie Lescard, x2899.

Morning Bible Studies*—Fri, 7:30-8:30am, L-217. Ed Bayliss, x3456, Lincoln.

Noon Bible Study*—Every Thurs, Rm 3-465, bring lunch. Ralph Burgess, x3-8121. (Since 1965).

Prayer Time*—Fri afternoons, 1-2pm, Bible Class, Rev. Miriam R. Eccles, founder & director of Alpha and Omega Missionary Society. Guest speakers & refreshments. Center for International Studies, Seminar Rm III (E38—6th flr).

Association for Research & Enlightenment Study Group*—Tuesdays, 7:30-10pm, Ashdown House First Floor

Lounge. Edgar Cayce's Search for God material will be used as the basis for group discussion & meditation. For info: Dave Rosenblitt, 267-7693 or Scott Greenwald, 494-8530.

The Church of Christ in Cambridge—Christians meet for worship, study, discussions, fellowship, Tang Hall, 1st & 3rd Sunday each month, 6:30pm. Robert Randolph, x3-4861/3-5085 or Claudia Lewis, 494-1326 (Ashdown).

Graduate Studies

Unless otherwise indicated, contact *Dean Jeanne Richard* at the Graduate School Office, Rm 3-136, x3-4869 for further information.

US Navy Office of Naval Research Graduate Fellowships. Approximately 45 will be awarded for 1984-85, for study and research in Computer Science, Naval Architecture, Materials Science, Applied Physics, Physical Oceanography, and Electrical, Ocean, Aerospace and Mechanical Engineering. These renewable fellowships have a 12-month tenure and pay full tuition plus a stipend of \$13,000. Applicants must be US citizens or nationals who have not previously attended graduate school. Deadline: February 15, 1984. For applications write: American Society for Engineering Education, 11 Dupont Circle, Suite 200, Washington, DC 20036.

Walter S. Barr Fellowships for advanced study or research, awarded by The Horace Smith Fund. Fellowships are limited to residents of Hampden County, Mass., who have been or are about to be graduated from college. Candidates should be preparing for careers of "definite social usefulness," such as careers in politics or scientific research. The GRE Aptitude or other appropriate professional school aptitude test is required of applicants. Minimum award is \$1,500. Deadline: February 1, 1984. Apply to: The Secretary, The Horace Smith Fund, Box 3034, Springfield, MA 01101.

Andrew Mellon Postdoctoral Fellowship. Tenable for one year at the University of Pittsburgh and pays a stipend of \$16,000 for 11 months or \$13,100 for 9 months. Postdoctoral researchers in certain areas of Humanities and Social Sciences, and in Biological Sciences, Physics, and Mathematics are eligible to apply. Application deadline: January 15, 1984. Applications available in Rm 3-138 or write: Andrew Mellon Postdoctoral Fellowship, Director of Graduate Programs, FAS, 910 Cathedral of Learning, Pittsburgh, PA 15260.

National Endowment for the Humanities Fellowships for postdoctoral research, \$25,000 for 11 months residency. Deadline: January 15, 1984.

Monticello College Foundation for Women. Primarily for women who have recently obtained the PhD in the Humanities, \$8,500 for 6 months residency. Deadline: January 15, 1984.

D'Arcy McNickle Center for the History of the American Indian Fellowship. Available to women of American Indian heritage, pursuing an academic program beyond the undergraduate degree in the humanities and social sciences. From 1 month to 1 year; stipend varies with need. Deadline: February 1, 1984.

Ford Foundation and the National Research Council Postdoctoral Fellowships. Awarded to approximately 35 minority scholars in the humanities, engineering, physical, biological and sciences. Applicants should be US citizens who have earned a PhD or its equivalent. Recipients are expected to do their postdoctoral work at an institution other than that from which they apply. Stipends are \$20,000/yr for those who have held the doctorate for less than seven years, and \$26,000 for those who obtained the degree more than seven years ago. Application deadline: January 16, 1984.

Josephine de Karman Fellowship Trust. Awards approximately 20 fellowships of \$3,000 each annually for graduate study in any discipline. Graduate students entering their third year or beyond of graduate study in the fall of 1984 are eligible to apply. Applicants should have manifested exceptional ability and serious purpose. Special consideration will be given to applicants in the humanities. Applications should be requested by January 15, 1984. Deadline: January 31, 1984. Apply to: Mr. T.E. Beehan, Secretary, Fellowship Committee, Josephine de Karman Fellowship Trust, c/o Aerojet-General Corporation, 10300 N. Torrey Pines Rd., LaJolla, CA 92037.

The Radcliffe Research Support Program offers grants up to \$3,000 for research expenses to post doctoral scholars. Application deadlines for 1984-85 program are February 15 and April 15, 1984. Applicants must draw on resources of the Schlesinger Library on the history of Women in America and/or the Murray Research Center.

Charlotte W. Newcombe Doctoral Dissertation Fellowships. Approximately 48 will be awarded to students enrolled in doctoral programs in the humanities and social sciences at US graduate schools. All requirements, except thesis, must be complete by January 1984. Winners will receive grants—\$7,500 for 12 months of full-time dissertation research and writing. The award does not pay for tuition and fees, and MIT does not waive these charges. Deadline for application requests is December 23, 1983 and the completed application must be returned by January 6, 1984. For further information, see Dean Jeanne Richard, or write directly for application to: Newcombe Fellowships, Woodrow Wilson National Fellowship Foundation, Box 642, Princeton, NJ 08540.

Lena Lake Forrest Fellowships, sponsored by the Business and Professional Women's Foundation and the BPW Foundation Research Grant Program, which supports research pertaining to economic, educational, political, social or psychological factors affecting working women. Awards range from \$500 to \$3,000. Applicants must be doctoral candidates or postdoctoral scholars whose proposal for research has been approved by an accredited graduate institution. Only US citizens are eligible. Application deadline: January 1, 1984.

Bell Laboratories Graduate Research Programs for Women. Provides financial support for outstanding women students pursuing full-time doctoral studies in chemistry, computer science, economics, electrical engineering, experimental human psychology, materials science, mathematics, operations research, physics and statistics. Fellowship Program provides full tuition and fees plus a stipend of \$700/month for the academic year (9 months) plus an allowance for books, fees and related travel expenses. Grant Program provides an annual award of \$1,500 to be used during the academic year in any way that benefits professional development. Fellowships and grants will be renewed on a yearly basis for the duration of the graduate program provided that satisfactory progress toward the doctoral degree is maintained. Applications must be received by Jan. 15 and all supporting material by Jan. 31, 1984. Two fellowships and four grants are awarded annually, in late March, for graduate study beginning in September. Applications are usually submitted during the candidate's senior year in college.

Vannevar Bush Fellowship Program: Offers eight fellowships with a stipend of \$16,000 each for the academic year 1984-85 in the Program in Science, Technology and Society at MIT. Fellowships are open to science and technology freelance writers and employees of newsgathering organizations. Three years experience preferred. For more information and application, please write: Vannevar Bush Fellowship Program, E51-128, MIT, Cambridge, MA 02139. Deadline: January 15, 1984.

Exxon Research Fellowships. MIT Program in Science, Technology and Society invites applications for several one-year research fellowships on the relationships of science, technology, and society with a preference given this year to the history of science. Ph.D. or equivalent desirable. Partial or full stipend. For more information, write: Shawn Finnegan, E51-128, Cambridge, MA 02139. Application deadline January 15, 1984.

Mellon Fellowship Program. MIT Program in Science, Technology, and Society invites applications from scientists, engineers, and physicians for several one year study fellowships on the relationships of science, technology, or

medicine with society. Ph.D. or equivalent in science or engineering is desirable. Partial or full stipend available. For more information, write: Leon Trilling, Chairman, Mellon Fellowship Committee, E51-128, MIT, Cambridge, MA 02139. Deadline: February 1, 1984.

International Foundation of Employee Benefit Plans—Grants-in-Aid of Research on Private Employee Benefit Plans. U.S. or Canadian graduate students who are pursuing "original research on some aspect of the health care, retirement, or fringe benefit systems in North America" are eligible to apply. The Foundation provides a stipend of \$1,000 to \$3,000 for 12 months, designed to supplement other financial sources/assistance. Applicants should have completed at least one semester of graduate course work by January 1, 1984. Further information available from: Director of Research, International Foundation of Employee Benefit Plans, Grants-in-Aids Program, 18700 W. Bluemond Rd., PO Box 69, Brookfield, WI 53005.

Nuclear Engineering Institute for graduate students for summer 1984 at Idaho National Engineering Laboratory. Participants must be full-time engineering students with preference given to those who have completed no more than one year of graduate study. A stipend of \$190/week plus travel costs to Idaho are provided. Deadline: January 6, 1984. Apply to Argonne Division of Educational Programs, Nuclear Engineering Institute, 9700 S. Cass Ave., Argonne, IL 60439.

Amelia Earhart Fellowships—Zonta International has announced the 1984 competition for the Amelia Earhart Fellowships. Grants of \$5,000 will be offered to women for graduate study and research in aerospace related sciences and engineering. 30 women received Amelia Earhart Fellowships for 1983-84. Deadline for applications is January 1, 1984. For further information and applications write: Zonta Amelia Earhart Fellowships, Zonta International, 35 East Wacker Dr., Chicago, IL 60601.

Internships

The following is a list of internship opportunities. For more information and deadline dates, contact Elizabeth Reed or Diane Wilhoite, Office of Career Services and Preprofessional Advising, Rm 12-170, x3-4733.

Interlock Media Associates, Cambridge. Conduct interviews and analytical research, assist in audio production, administrative and clerical duties.

The Metropolitan Boston Zoos, Boston. Variety of internship positions available: publicity assistant, research assistant, education volunteer, animal hospital assistant, zoo attendant assistant, and special events assistant.

United Nations Development Program, New York. Summer internship designed to provide on-the-job training for students undertaking development-oriented graduate studies.

UROP

For more detailed information on UROP opportunities listed, MIT undergraduates should call or visit the Undergraduate Research Opportunities Program Office, Rm 20B-141, x3-5049 or 3-4849 unless otherwise specified in the listing. Undergraduates are also urged to check with the UROP bulletin board in the main corridor of the Institute.

Sea Grant UROP Awards. Several grants of \$750 each will be available for the Spring 1984 term to help fund undergraduates working in any area related to the study and management of the ocean and ocean resources. Proposals are invited from students in departments throughout MIT. Awards are available to support MIT and Wellesley undergraduates. Deadline: February 10, 1984. Contact the UROP Office for more information.

Civil Engineering UROP Traineeships. The Dept. of Civil Engineering will conduct a UROP Traineeship program in the coming spring semester with the offering of ten Traineeships of \$600 each. Traineeships will be awarded on the basis of a UROP proposal competition. Five awards will be reserved for freshmen. Deadline for proposal submission is Feb. 8, 1984. For more information, call the Civil Engineering Undergraduate Center or call Prof. Hemond, x3-1637.

Clapp and Poliak Engineering Design UROP Award. The Clapp and Poliak committee selects for support those projects which best fulfill the donor's stated objective "to give greater recognition to the role of design in engineering education." Proposals for stipends or materials and supplies support are welcome. The Committee welcomes a broad range of engineering design projects. For more information contact Ms. Norma McGovern, UROP or Dr. David Jansson, x3-6946, Rm W59-201.

Space Shuttle Experiments. The Man-Vehicle Lab in the Center for Space Research needs a few UROP students to assist with the life sciences research in support of Space Shuttle/Spacelab missions 1, 4 and D-1. No experience necessary—work as volunteers, for PAY or credit. Embraces most areas of study. Will work with computers and develop new experiments. FRESHMEN WELCOME. Contact Linda Robeck, x5-6105 or leave message at x5-6191. Faculty supervisor: Prof. Laurence R. Young.

Sustained and Controlled Delivery of Drugs from Porous Polymers. Research will be in the areas of sustained and controlled delivery of drugs from porous polymers: in vitro characterization and in vivo demonstration. Looking for upperclassmen with background in engineering, physics or chemistry and interest in medicine or biology. Contact Dr. Robert Langer, x3-3107, E25-342.

Drug Delivery Kinetics and Polymer Characterization. Research will be in the areas of drug delivery kinetics and polymer characterization (dynamic mechanical properties, mechanical properties, and thermal properties, etc.). Looking for students with background in engineering, physics or chemistry. Contact same as above.

Study of Possibility of Monitoring the Incremental Changes in Specific Gravity of Storage Battery Electrolyte. This is to be done by using fiber optics immersed in the electrolyte. Light will be injected in one fiber. The cross-coupled light to the other fiber will be measured. The magnitude of the cross-coupled light will depend on the scattering coefficient of the electrolyte which will be changing as the battery is being charged. A patient and persistent student who is interested in what may be a lengthy project is needed. Contact Dr. Charles Paton, 38-541, x3-4635.

TECH TALK



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Volume 28, Number 19

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Foreign policy need: 'binocular vision'

(This article was written by Lincoln P. Bloomfield, professor of political science, and originally appeared in *The Christian Science Monitor* Friday, Dec. 9.)

By LINCOLN P. BLOOMFIELD

US policy toward third-world trouble spots is widely faulted for neglecting root causes of dissent and conflict, concentrating instead on Soviet-Cuban (Syrian-Libyan, et al.) inflammation of the resulting chaos. Critics are branded as indifferent to the global fire-hazard created by communist arsonists.

Debates between these two interpretations of reality have highlighted a deep conceptual weakness, not unique to the present administration, that persistently frustrates American foreign policy goals, whether in the Middle East, Central America, or southern Africa. That weakness is the failure to come to grips with both Soviet strategic challenges and indigenous third-world turbulence. The first perspective dominates conservative "realist" thinking; the second, liberal "humanitarian" thinking. The twain rarely meet at top policy-making levels. But they are two sides of the national security coin.

Stability continues to be the principal goal toward developing areas, for a status quo power which prospers in an orderly and predictable international environment. Third-world trade and resources are of mounting importance to the US economy. And the most likely place for World War III to start is an escalating third-world explosion. With approximately one-and-a-half new "small wars" starting annually, it is in our highest interest to find better ways to anticipate local conflicts and insulate them when they go critical, meanwhile building toward stable relations

after the sometimes catastrophic transitions from dependency to autonomy.

To act on these three policy prescriptions, a comprehensive American strategy requires a far more penetrating diagnosis than we are currently making of socioeconomic-cultural-religious faultlines beneath potential political earthquakes. To get the diagnosis right calls for better intelligence, braver diplomatic reporting, and closer contact with the political opposition, not to mention pragmatic open-mindedness on the part of US leaders.

Such a conflict-containing strategy also means encouraging multilateral responsibility for quarantining local conflicts, instead of acting unilaterally and then condemning international organizations for being irrelevant. Indeed, the best way to revive the UN—and US confidence in it—is to insist at the outset of local conflicts that the UN or regional international organizations seal them off, with whatever US support that requires.

Historically, we failed virtually all those tests in Batista's Cuba, the Portuguese territories of Angola and Mozambique, imperial Iran, Somoza's Nicaragua, and pre-1979 El Salvador, despite ample early warning and multiple policy alternatives. Guatemala, the Philippines, much of the Caribbean including Puerto Rico, the Republic of Korea, and some or all of the Persian-Arabian Gulf loom on the same bleak horizon.

It is obvious that opportunities for external meddling are created by violent developmental crises experienced by some traditional societies as they encounter the universal drive for entitlements. But US policy priorities

invariably stress countering the effects of revolutionary change—usually unsuccessfully—and rarely to ameliorating root causes. Soviet and Cuban militarized forays into the world's soft spots are very real, and short-term threats must be confronted. But the short term is forever, and the US continually trails after events, lurching into crisis after crisis to stem the fallout for exploding society.

"Development minded" Americans pay the most attention to the socioeconomic-cultural roots of political change. But they lose credibility when they disdain power realities and ignore the need to keep Moscow from miscalculating the possible costs of aggressive conduct. Yet if liberals do too little homework on the Soviets, the national security-minded do too much. Extended deterrence may keep out Soviet offensive missiles, but it will not alter the conclusion by desperate people that violent change may be the only alternative to an intolerable economic, political, factional, or racial status quo.

To break this pattern requires thinking about two things at once—using policy "binoculars" in place of the tunnel vision that focuses only on third-world inequities or Soviet activism. Given the incapacity of policy-makers for longer-term planning, the challenge for the private sector—educators, foundations, and think tanks—is to start producing hybrids: specialists equipped with generalists' integrative thinking; liberal humanists who can also become competent Sovietologists; and conservative realists able to shake off the nationalist mindset that makes stereotyped ciphers of third-world people and incomprehensible monsters of adversaries with whom we must coexist.

Sloan is linked to large data source

A Waltham firm, Chase Econometrics/Interactive Data Corporation, has donated access to its XSIM System, the largest and most comprehensive source of economic and financial information commercially available, to the Sloan School of Management. Representatives of the company met with Dean Abraham J. Siegel and Associate Dean Alvin J. Silk on December 13 to announce the gift.

The XSIM System, described by Chase/IDC as a "single, seamless environment," is an interactive communications system that offers its users an extensive collection of data and software to analyze, simulate, model, and integrate both input and output data. Chase Econometrics uses the system for its widely-used economic forecasts and predictions.

"Access to this utility will enhance both our teaching and research programs, which have long emphasized the use of models and information technology to address fundamental management tasks, such as forecasting and strategic planning," Dean Silk stated.

Dr. Ernest R. Berndt, professor of applied economics, will supervise XSIM usage at Sloan. "The XSIM offers us a wide range of data not previously available," he said. "It's an exciting tool for these projects of our students and will boost the research efforts of our faculty."

The gift is part of a Chase Econometrics/IDC program to donate \$1.5 million in computer services to 30 of the nation's top business schools.

Health Plan adopts prescription benefit

The MIT Health Plan has adopted a new benefit to help members pay for prescription medicines. Effective January 1, 1984, members will be charged no more than \$3 for each prescription they have filled in the Medical Department Pharmacy. The Pharmacy is open 9am-5pm Monday-Friday except for holidays.

For members who need to fill prescriptions when the Pharmacy is closed or when traveling, the out-of-pocket costs can be applied to the extended benefit feature of the MIT Health Plan. Under this feature, a member is repaid 80 per cent of the cost of prescription drugs and medical appliances after the first \$50 spent in each calendar year. Beginning in 1984, prescription medicines purchased at the MIT Pharmacy will not count toward a member's extended benefit.

In most instances, the Pharmacy will limit each \$3 prescription to a two-months' supply of medication. The Pharmacy can only fill prescriptions written by an MIT Medical Department physician.

A few medications, such as allergy serums and birth control devices requiring a prescription, will continue to be covered under the extended benefit provision.

NEH to support Erdely folklore research

(continued from page 1)

and started to collect, I began to see that a strong music tradition existing for a thousand years will not change in 40 to 50 years."

He reflected upon the differences in the work he did this summer and that he did years ago when he lived in his native Hungary (he came to the US in 1949). "I used to simply take my rucksack and go to the villages," he said. Now he had to go through village representatives and also to contend with changes brought about by the government's current emphasis on a renewal of folk traditions. The Tanchaz or dance-hall movement started on its own in Hungary but has been encouraged as a constructive activity by the government which considers it a useful counterbalance to disco, according to Professor Erdely.

Along with the folk renaissance has come government-run contests and radio/television appearances. In the process of taking songs out of daily life and presenting them in a more theatrical setting, the people tend to speed up the tempo and lose ornamentation. "When a folksong goes on stage that way, it can lose its freedom," he said. "It tends to lose much of the ornamentation that it originally had and sometimes takes on an artificial character."

In his collecting of songs on tape, Professor Erdely strives for the more original renditions. Through the practice of considerable patience and subtlety, he was able to obtain many songs in their purer versions. "In their pure form, they flourish in an entirely different way," he said.

His colleagues in the Hungarian Academy of Sciences agreed with him in preferring the informal daily life versions of the songs, he said.

Professor Erdely said he was surprised to find that no new labor songs are developing in Hungary. "Folk music is being carried into industry but no (folk song) material is coming back from industry into the countryside."

He attributes that to the deeply embedded nature of rural folk music: "When we finally swam through the maze and really got to the people there was a very strong conservation tendency. If the people are left alone, they will sing the old songs in the old ways. The grandmothers are still educating their grandchildren to this. You can't write out a thousand years."

This work has bearing on extremely complex questions, he believes, including many facets of the study of acculturation and identity.

Now he can begin to go through the same phases of collecting and scrutinizing material in this country. "My question will be: How did they forget or bow to alien influences here?" he said.

He has been working in the field of ethnomusicology for some 20 years. In this hemisphere he has collected songs in the Cleveland area, in the Calumet area south of Chicago and in Ontario. He hopes to add an area near New Brunswick, New Jersey.

He has been asked to be a panelist in a three-day conference, March 27-29, at the University of Indiana to discuss "Culture, Tradition and Identity." The theme of this meeting will be an exploration of how folklore strengthens these three ideas, he said.

The two groups taking part in the binational project are the Hungarian Academy of Sciences and the American Council of Learned Societies.

Professor Erdely came to MIT in 1973 and was head of the Music Section of the Department of Humanities from 1976-1981. He had been a violinist for 16 years with the Cleveland Orchestra under the late Geroge Szell. He and

his wife, pianist Beatrice Erdely, perform together as The Erdely Duo. Boston Globe critic Richard Buell, in reviewing one of their concerts, said Mrs. Erdely's "pianism was fleet, supple, even honey-toned and alert to stylistic diversity." Mr. Erdely, he said had a tone in playing the Mozart D Major Sonata, K. 206, that "at its starkest, can remind you of a straight, taut, unshathed wire."

They are engaging, Buell wrote, giving a

Perkin-Elmer, Lockheed join to provide aerospace facility

(continued from page 1)

general manager of Lockheed Missiles & Space Company. From 1956 to 1963 he was a senior vice president. Mr. Hibbard was a member of the Lockheed board from 1935 to 1972 and an honorary director until 1977.

Mr. Hibbard is recognized internationally for his contributions to aviation engineering. For World War II service to his country, he was awarded the President's Certificate of Merit (1947). He is a Fellow of the Royal Aeronautical Society and was president of the Institute of Aeronautical Sciences in 1942-43. In 1944 he received an honorary PhD from the College of Emporia (Kansas) where he was graduated in 1925, and from Occidental College (California) in 1971.

The equipment donated to the Hibbard Computer-Aided Aerospace Design Facility is anchored by a Perkin-Elmer Series 3200 Supermini-computer. There are several peripheral pieces of equipment as well. The Perkin-Elmer CAD/CAM system operates on CADAM software, which Perkin-Elmer markets under license from CADAM, Inc.

Professor Kerrebrock said the new CAD/CAM facility will greatly enhance the department's ability to utilize the latest equipment and techniques in aerospace design, in its research.

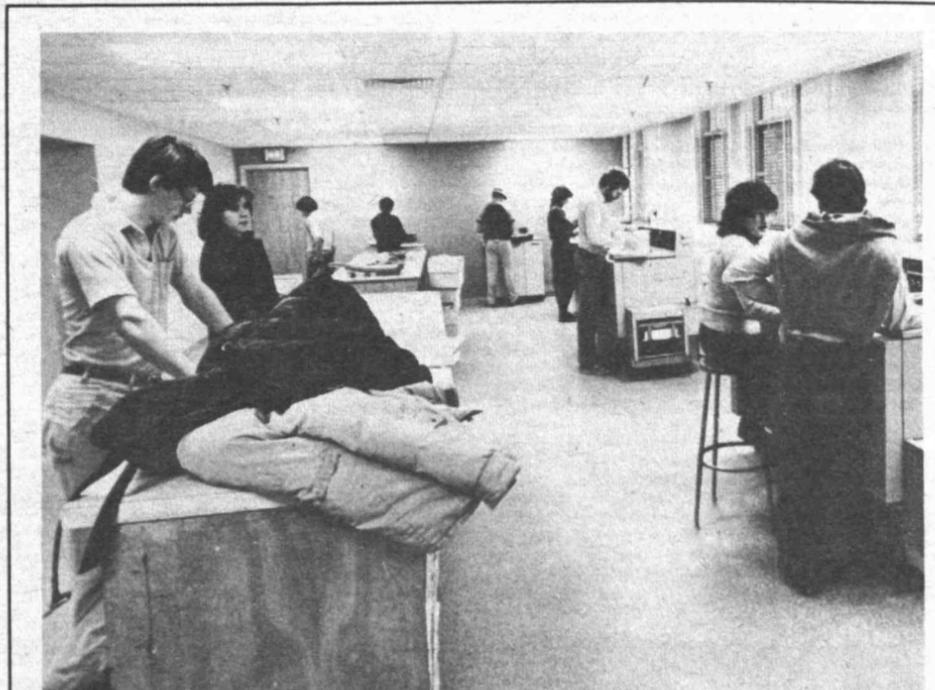
sense of settled culture, knowingness and aplomb. "It seems quite right that in their overlapping careers they have been associated with such institutions as the Budapest Conservatory (the Kodaly-Bartok-Dohnanyi connection), Eduard Steuermann, the Cleveland Orchestra and MIT," he wrote. They will be performing next at MIT on January 28 at 8pm in Kresge Auditorium when they will play an all-Mozart program.

"We are most grateful to Perkin-Elmer, Lockheed and CADAM for this most generous gift and we are especially proud to associate the new design facility with the name of Hall Hibbard, whose vision and engineering skill helped shape an entire industry."

Professor Kerrebrock said that the new facility will be managed by Robert Bruen, a researcher with the department.

Perkin-Elmer, headquartered in Norwalk, Conn., has more than 14,000 employees worldwide. Its 1983 fiscal year sales were \$1 billion. The company is the first manufacturer of the 32-bit minicomputer with computer sales and service organizations throughout the world; the world's largest and broadest-line manufacturer of analytical instruments; the largest producer of advanced equipment for semiconductor processing; a leading source of sophisticated electro-optical systems and precise optics for scientific and space programs; a major supplier of avionics instruments and missile systems in Europe, and the world leader in thermal spray technology.

Lockheed had \$5.1 billion in sales in the last fiscal year on worldwide operations including technologically advanced defense systems, shipbuilding, airport operations and commercial and military aircraft production. It has 73,600 employees.



A new Graphic Arts Quick Copy Center in the main complex opened this week in the basement of Building 3. The new Center has space for projected growth and includes an expanded self-service area, shown above. An open house at the new facility is planned for mid-January.

—Photo by Calvin Campbell

Lichtenberg noted

Dr. Byron K. Lichtenberg and the other scientists and astronauts who flew the Spacelab 1 mission met the press Monday at the Johnson Space Center in Houston.

Dr. Lichtenberg and the other scientists showed films and slides of their trip and of the more than 70 experiments conducted in space, the United Press International reported.

The Lichtenberg family—Byron, his wife Lee, and their children, Kimberly, 7, and Kristin, 10—were pictured on the front page of the Boston Herald Monday, Dec. 19, during Dr. Lichtenberg's first trip home since returning to Earth December 8 after a 10-day mission.

At noon today in the Marlar Lounge, Professor Laurence R. Young, principal investigator for several motion sickness experiments that were aboard Spacelab, and Dr. Charles M. Oman, lead investigator on four of the experiments, will speak informally at the regularly scheduled Department of Aeronautics and Astronautics luncheon. Dr. Jack Kerrebrock, department head, said members of the Institute community are welcome on a space available basis to the bring-your-own-lunch affair.

Nominations sought

Professor John M. Deutch, dean of the School of Science, has issued a call for nominations for the Science Council Prize for excellence in undergraduate teaching.

The Prize recognizes outstanding instructional performance and is intended to emphasize the importance the Science Council places on teaching. Those eligible include any faculty member in the School of Science who has achieved distinction in his or her teaching. The Prize carries a \$5,000 honorarium.

Nominations may be made by any member of the community by March 30, 1984. The Science Council will select the recipient based on the advice of a nominating committee composed of Professors James L. Kinsey (chairman), Maurice Fox, Anthony French and Alar Toomre.

THE INSTITUTE CALENDAR

December 21-January 15

Events of Special Interest

Sounds and Sights of Music*—Vin Grabill, fellow CAVS and Clark Johnson, Modern Audio Association, Center for Advanced Visual Studies technical seminar featuring recordings from 1930 to 1980, large screen free form and musical video by MIT artists. Designed to alert the eyes and ears of musicians and engineers to recent unpublished developments in audio and video techniques. Through Dec. 23, Kresge Little Theatre. Seminars and discussions ongoing from 1pm with a show every night at 9pm.

Seminars and Lectures

Wednesday, December 21

Potential Measurements with Heavy Ion Beam Probes*—Dr. Gary Hallock, Oak Ridge National Laboratory, Plasma Fusion Center Seminar, 1pm, Rm NW14-2209. Refreshments served at 12:45pm.

Thursday, December 22

Calculation of Equilibrium Parameters of Tandem Mirrors with Thermal Barriers*—Dr. Bruce Boghosian, Lawrence Livermore National Laboratory, Plasma Fusion Center Seminar, 4pm, Rm NW14-2209. Refreshments served at 3:45pm.

Thursday, January 5

Energy Metabolism in Anaerobic Thermophiles or Some Like It Hot*—Dr. Mary F. Roberts, Chemistry Dept., MIT, Dept. of Nutrition and Food Science Seminar, 4pm, Rm 16-134.

Community Meetings

Al-Anon*—Meetings every Tues, noon-1pm, Moore Rm 6-321; every Fri, noon-1pm, Health Education Conference Rm E23-297. The only requirement for membership is that there be a problem of alcoholism in a relative or friend. Call Ruth or Shirlee, x3-4911.

MIT Faculty Club**—The Club is open Mon-Fri. Luncheon hours: noon-2pm; dinner hours: 5:30-8pm. For dinner and private party reservations call x3-4896 9am-5pm daily.

Tech Community Women (formerly Technology Wives Organization)**—Weekly exercise classes taught by Patricia Murray, Thursdays, through December 15, 7:30-8:30pm, Exercise Room, 2nd floor, Dupont Gym. Fee: \$2.50/class non-members. \$2/class TCW members.

Introduction

Use the Timetable as a companion to the Guide.

When you locate an activity you are interested in attending, refer to the Final Guide for details about it. To find the complete listing, simply match the number that precedes the title of the activity in the Timetable with the number of the listing in the Guide. Activities appear in the Guide in numerical order.

A schedule with an asterisk (*) by it signifies an activity in which regular attendance is preferred.

Preregistration dates of activities have been left in as a reminder to people who have signed up for them. They may be closed. They are listed under the dates that they are being held, not under their preregistration dates.

If you are interested in attending an activity whose preregistration date has passed, we suggest you call the contact person listed in the Guide to see if there is any room.

New listings and changes appear at the end of the Timetable.

Activities, which in the Final Guide, stated "date, time, and location to be arranged," and which were not scheduled by the Dec 14 deadline, do not appear in the Timetable. If you find an activity with no schedule, contact the organizer directly for details.

The Timetable for Jan 11-18 will appear in next week's *Tech Talk*, the one for Jan 18-25 in the Jan 18 *Tech Talk*, and the one for Jan 25-Feb 1 in the Jan 25 *Tech Talk*.

Last-minute cancellations and schedule changes should be submitted to the IAP Office, 7-108, x3-1668, so that the office can post the information and handle inquiries.

Pre-IAP

Activities that meet before Jan 9, the first day of IAP, are listed here with their pre-IAP meeting dates.

4754 Tae Kwon-Do
Sun, Jan 1, 8, 4-6 pm, T-Club Lounge, du Pont; Mon, Wed, Fri, Jan 2-6, 6-8 pm, dining hall, Burton (Mon, Wed), T-Club Lounge (Fri)*

4505 Solving the \$100,000 Decipher Puzzle
Tues, Thurs, Jan 3, 5, 10-11 am, 36-144*

Discounts available for TCW members. Discounts available for prepaid classes. Athletic card required. For more info: call Pat, x3-3351 or 494-8761.

MIT Women's League Informal Needlework Group**—Wednesday lunchtime gatherings, 9:30am-1:30pm, Rm 10-340. Bring sack lunch, projects, swap ideas. Coffee and tea served. Meeting dates: Jan. 4, 18, Feb. 8, 22, March 7, 21, April 18, May 2, 16, June 6.

Premenstrual Syndrome*—Ms. Karen Halvorsen, Women's Forum, "The Seasons of a Woman's Life," January 9, 12-1pm, Rm 4-163.

Parents Support Group**—Next scheduled meeting, January 3, 12-1pm, Rm E23-501. Prospective parents as well as new parents are welcome.

Tool and Die**—MIT's humor magazine holds weekly meetings, Tuesdays, 5pm, Rm 400 Student Center.

MIT Activities Committee

MITAC, the MIT Activities Committee offers discount movie tickets for General Cinema (\$2.50), Showcase and Sack Theaters (\$2.75). Tickets are good 7 days a week, any performance. MITAC also has discount passes for the Museum of Science which are good any time through June 30, 1984. Passes are \$1, plus \$1 at the door.

Tickets may be purchased at MITAC Office, Rm 20A-023, 10am-3pm. Mon through Fri and Lobbies 10 and E18 on Fri, 12 noon-1pm. Lincoln Lab employees may continue to purchase these discount passes from Malcolm Coley, Rm C-372, Mary Kowal, D-250, and Linda Wesley, C-447, Wed & Fri 1-3pm.

Ice Capades—Featuring the Smurfs, at the Boston Garden on Saturday, Dec. 31, 11am. Tickets are \$7.50 (reg. \$9.50) and may be purchased at the MITAC Office.

Mummenschanz—An Evening of Mime, Friday, Jan. 6, 8pm at the Colonial Theatre. Tickets \$15 (reg. \$16.50), available in Rm 20A-023.

Tom Foolery, at the Charles Playhouse, Thursday, Jan. 12 at 8pm. Tickets \$14 (reg. \$15.50), in the MITAC Office.

MITAC Evening at Wonderland, Saturday, Jan. 28, beginning at 6:30pm. For only \$10 you will receive clubhouse admission and racing program and a delicious, complete dinner featuring boneless stuffed breast of chicken. Reserve your space now!

Alpine Ski Discount Books, containing coupons for up to \$10 off lift tickets at 48 major ski resorts, available for \$8.75.

City Coupon Books containing valuable coupons for Boston restaurants, shopping and services (valid through February) may be purchased for only \$5.00.

Please Note that due to the holidays, the MITAC booths will change to a Thursday-at-noon schedule for December 22 and 29 only.

Social Activities

Table Francaise*—Henri Mura, Ecole Normale Superieure, Tous les Lundis, 12.00 a 14.00 h, Venez déjeuner avec nous et parler Francais, Muddy Charles Pub.

Movies

Video of the Children, By the Children and For Everyone*—Children's faces of super screens in an interactive image wall, partially controlled by members of the audience, hosted by Ron Lovely, including video artists from CAVS. Dec. 31, 3-5:30pm, Hynes Auditorium, Boston.

First Night Video Magic*—Locally produced video art including CAVS, Dec. 31, 7-11pm, Hynes Auditorium, Boston.

Medea**—Videotape of Zoe Caldwell's performance of the Euripides classic at the Kennedy Center, Film/Video, Drama Program & Council for the Arts presentation, Friday, Jan. 20, 2:30pm, Rm N51-100.

Theater

Auditions for Godspell*—MIT Musical Theatre Guild, Jan 9-10, 7pm, 4th Floor Student Center. Please bring a prepared song.

Dance

Auditions for Student Dance**—Choreographed by Beth Soll, Modern Dance Workshop, Monday, Jan. 9, 3pm, Walker 201. For students with 2 or 3+ years of training.

MIT Folk Dance Club*—weekly dancing: Sundays, International Dancing, 7:30pm, Student Center Sala de Puerto Rico; Tuesdays, Balkan and Western European Dancing, 7:30pm, Rm 407 Student Center; Wednesday, Israeli Dancing, 7:30pm Sala de Puerto Rico.

Children's Dance Classes*—Pamela Day, instructor. Creative Movement/Modern Dance classes for children 3-12. Children may join anytime throughout the term and may attend one, two or three times per week. Ages 3-4 meet Mon, Wed, 2-3pm & Sat 10-11am. Ages 5-6 meet Wed 3-4pm. Ages 7-12 meet Mon 3-4pm & Sat 11am-noon. West campus location, convenient to Westgate. Children do not have to speak English. For info and registration call Pamela, x3-5758.

Yoga*—ongoing classes in traditional Hatha and Iyengar style. Beginners-7:20pm, Intermediates-5:45pm, Thursdays; all levels, 12:05pm. For information call Ei Turchinetz, 862-2613.

MIT Dance workshop regular meetings*—Beth Soll, director. Beginning Technique: MW, 3-5, T Club Lounge in Dupont; Composition/Improvisation: Th 3-5, T Club Lounge in Dupont; Intermediate Technique: TTh 5:30-7, Walker 201.

Exhibits

COMMITTEE ON THE VISUAL ARTS

Hayden Corridor Gallery: Local Visions III: Architectural Photography*—Photographs by Boston area photographers of Boston area buildings—interiors and exteriors, public and private, through January 15.

Hayden Gallery: Jackie Winsor/Barry Ledoux*—Abstract sculptures by Jackie Winsor completed since the 1979 Museum of Modern Art survey of her work provide a foil to recent figurative sculptures by Barry Ledoux. Through Jan. 15.

THE MIT MUSEUM

Mechanical Computing; slide rules, slide rules, and more slide rules; **A Bunch of Electricals: An MIT Electrical Engineering Retrospective**. Including the Bush Differential Analyzer and the Edison Dynamo given to MIT by Thomas A. Edison in 1887. **Math in 3D** - Morton C. Bradley's richly colored geometric sculptures revolve in space to evoke Plato's thought: "Perfect beauty is geometric beauty." **Architecture of Alphabets**. Historical examination of the relationship of typography and architecture. Books, broadsides and letter forms. through Jan. 27. **Images Around the World** - Photographs by Paul Tishman '24 and Sidney Gluck, through Jan. 25. **Watercolors by Benjamin Russell** - 21 ship portraits and whaling scenes by the 19th-century New Bedford artist, from the Forbes Collection, through Feb. 29.

Compton Gallery

Etched in Sunlight: Samuel V. Chamberlain '18*—Lithographs, etchings and photographs. Mon.-Fri., 9am-5pm, Sat. 10am-4pm, Jan. 5 through March 17.

Hart Nautical Gallery

Hart Nautical Galleries*—Fredonia: **A Suitable Schooner. The America**. Color lithographs of schooner yacht America, Winner of the 100 Guinea Cup later known as the America's Cup. **William A. Baker '34: A Tribute**. A memorial exhibition of his watercolors, drawings, plans of historic vessels, etchings and models. Daily 9am-10pm, Rm 5-126. Free.

The IAP Timetable

Mon, Jan 9

3004 New Script Analysis
Tues, Jan 3, 1 pm, Resource Sharing Center, N57. Preregister by Dec 23.

4568 The Hobby of Mineral Collecting
Tues, Jan 3, 5 pm, Pet Lab, 24-411 (first meeting). Preregister by Dec 30.

4711 Theater in Boston, or How To Be a Critic
Tues, Jan 3, 6 pm (first meeting), location to be arranged*

4706 Square Dance
Tues, Jan 3, 8-11 pm, second floor, Student Center

I Project Goddard: Construction of a Liquid Propellant Rocket
Wed, Jan 4, 10 am, 33-206 (first meeting)

178 Climate and Volcanoes Workshop
Wed, Jan 4, 10 am, 54-1510*

3005 The Pageant of Ibero-American Civilization
Wed, Jan 4, 2 pm, 4-152

4660 How To Write For a Humor Magazine
Wed, Jan 4, 5 pm, 400 Student Center

4275 Thermal Management of the Marion Water Supply
Thurs, Jan 5, 11 am, E38-330 (first meeting)

977 Teaching Learning Strategies to MIT Students
Thurs, Jan 5, 2:30-4 pm, 10-280*

4102 Operations Research Center Lecture Series
Detecting Psychological Components of Risk Aversion
Thurs, Jan 5, 4-5 pm, E40-298

4558 The Cupped-Hand Sound Generation System
Thurs, Jan 5, 9-9:30 pm, location to be arranged

(New) Magic for Magicians and Learners
Fri, Jan 6, 2-3:30 pm, W2A*

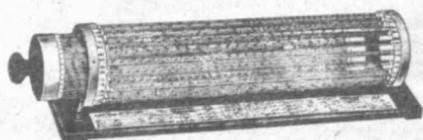
880 Clay Sculpture for Children and Their Parents
Sat, Jan 7, 10 am-1 pm, 429 Student Center

4507 Bridge for Beginners
Daily, Jan 7-20, Jan 14-27, or Jan 21-Feb 3, 5:45-6:30 pm, location to be arranged*

4707 Special Monthly Square Dance
Sat, Jan 7, 8-11 pm, second floor, Student Center

4908 Gays at MIT
Sun, Jan 8, 5-6:30 pm, 50-306

5116 LSC Events and Movies
Our Man Flint
Sun, Jan 8, 7 and 9:30 pm, 26-100



Thacher's calculating instrument, *Catalogue of Keuffel and Esser Co.*, New York, 1936, from the collection of the MIT Museum.

60 Community Design Center: Architecture Courses and Consultation
9 am-10 pm, 10-280

69 A Structural Approach to Landscape Design
9 am-12 noon, 7-403. * Preregister by Dec 15.

102 Glassblowing
9 am-12 noon, 1-3 pm, 66-157

353 Transformation Plasticity
9 am-5 pm, 13-5101

656 Calculus Revisited
9 am-5 pm, Rotch Library Visual Collections, 7-403

685 Expository Writing: An Intensive Review
9 am-12 noon. * Preregister by Dec 16.

825 Machine Shop Course
9 am-12 noon, location to be arranged*

852 Physics of Space Plasmas
9 am-5 pm, Marl Lar Lounge, 37-252

4078 Reactor Physics and Operations
9 am-12 noon, 1-4 pm, NW12-202

4300 Introduction to the Laser Research Facility
Introduction to the Laser Facility
9 am, 4-370

4656 Latin: Reading and Review
9-10 am, 1-134*

5103 1984: The Book, the Year
Planning and Discussion Sessions
9 am, Kolker Room, 26-414*

256 Intensive Spanish I
9:30 am-12:30 pm, 14N-313. * Preregister by Dec 16.

628 The Dynamics of Social Systems
9:30 am-12:30 pm, 2-5 pm, E51-136

5105 The Art and Science of Change Ringing
9:30 am, 2-136 (organizational meeting)*

50 Practical Drawing Techniques: My Drawings Need Help
10 am, Old-X, 7-439 (first meeting)*

66 Women Designers and Women Builders
10 am-12 noon, Cheney Room, 3-310

130 Glassblowing Demonstration
10-11:30 am, 6-031. Preregister by Jan 5.

153 Das Harvard Bridge
10 am-12:30 pm, Wed, Feb 1, 12 noon-4 pm, 1-350. Preregister by Dec 16.

154 Practical Surveying
10 am-1 pm, 1-236*

177 Charles River Basin Hydrographic Project
10 am, 4-402 (first meeting). Preregister by Jan 9.

The Engineering Wizard of Bristol: Nathanael G. Herreshoff*—Plans, half-models, equipment and photographs documenting the renowned yacht designer's application of engineering skills to ship design.

Ongoing exhibits: **MIT Seagrant**—A review of MIT ocean research; **Collection of Ship Models**—Half-models and drawings. Historical view of the design and construction of ships.

Corridor Exhibits

Corridor Exhibits: Building 1 & 5, 2nd floor: **John Ripley Freeman Lobby**, Building 4: **Rogers Building, Norbert Wiener, Karl Taylor Compton. Community Service Fund, Ellen Swallow Richards. Women at MIT.** An overview of the admission of women at MIT. Five photographic panels with text documenting the circumstances that increased the number of women in the classroom since Ellen Swallow Richards. Building 6: **Laboratory for Physical Chemistry**, Building 8: **Solar Energy, Society of the Sigma XI.** For info call MIT Museum, x3-4444.

Edgerton Stroboscopic Light Laboratory Corridor Exhibit*—Permanent exhibit of high speed photographs. Main corridor, near Rm 4-405.

OTHER EXHIBITS

Willis Hartshorn: Recent Works—chromatic prints that depict facial expressions of emotional tension, anxiety, anger, etc. Exhibition of photographs by Willis Hartshorn, presently in charge of the traveling exhibition program at the International Center of Photography: Visible Language Workshop Gallery, 275 Mass. Ave., through Jan. 14.

Institute Archives and Special Collections—Planning the New Technology. Part One: John Ripley Freeman. The first of a three-part series about the relocation of "Technology" (MIT) from Copley Square to Cambridge highlights the plans of Freeman whose ideas on interconnected buildings were rejected as "too wide a departure from accepted methods." Hall exhibit case across from Rm 14N-118.

MIT Faculty Club Exhibit*—From California to Massachusetts, Recent paintings by Carolyn Jundzilo-Comer, 11:30-9, through Dec. 30.

Rotch Visual Collections*—Historic Buildings of New England by Betsy Fuchs, Rm 7-304, 9am-6pm weekdays, through January 14.

Sports

HOME EVENTS: Jan. 12: Women's Basketball vs. Endicott, 6:30pm. Jan. 14: Hockey vs. Quinnipiac College, 2pm. Jan. 15: Hockey vs. Wagner College, 2pm.

Wellesley Events

Jewett Arts Center 25th Anniversary Exhibition*—a selection of masterpieces from the Wellesley collection covering five centuries from Albrecht Durer to Jasper Johns, Wellesley College Museum, through January 15.

Cervin Robinson: Photographs 1958-1983*—exhibit of historic and recent architecture, Wellesley College Museum, through January 29.

Freshmen are encouraged to attend departmental lectures and seminars. Even when these are highly technical they provide students one means to learn more about professional work in a department and fields.

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

Send notices for Wednesday, January 11 through Sunday, January 22, to Calendar Editor Rm 5-113, before noon, Friday, January 6.

203 Estimating the Dynamic Behavior of Prices and Quantities
10 am-12 noon, E51-307*

251 Intensive Beginning French
10 am-1 pm, 14N-225. * Preregister by Dec 16.

253 Intensive German I
10 am-1 pm, 14E-304. * Preregister by Dec 16.

276 Luther Revisited
10 am, 66-148. Preregister by Jan 5.

351 The Use of Computers in Materials Science and Engineering
The Use of Computers in Materials Processing
10 am-12 noon, 4-153

400 Microcomputers for Mechanical Engineering Students
10 am-12 noon, 35-125A. * Preregister by Dec 15.

402 Interesting Consulting Problems and Solutions
The Engineer Consultant as Expert Witness in Legal Actions
10 am, Miller Room, 1-114



Map measure, *Catalogue of Keuffel and Esser Co.*, New York, 1936, from the collection of the MIT Museum.

686 The Writing and Communication Center's Consultations
10 am-2 pm, 14N-317

750 Robotics and Vision at the Artificial Intelligence Laboratory
10-11 am, 4-231*

4300 Introduction to the Laser Research Facility
Pulsed Visible and UV Laser Spectroscopy
10 am, 4-370

4651 Yiddish
10 am-12 noon, W2A. * Preregister by Dec 21.

70 Physical Education Classes
10:30 am-12 noon, gym, du Pont (registration)

134 Photochemistry Short Course
10:30 am-12 noon, 2-190*

629 Statistical Quality Control
10:30 am-12 noon, E51-328

783 Reflections on Space
10:30 am-12 noon, 4-149

3050 Cardiovascular and Lung Health
A Display on Smoking and Lung Health
10:30 am-3 pm, 4-163

1160 Statistical Computing at IPS
11 am-12 noon, location to be arranged

3050 Cardiovascular and Lung Health
Internal Ventilation: Tests of Breathing
11 am-12 noon, 4-163

4757 Aikido
11 am-12 noon, exercise room, du Pont*

4300 Introduction to the Laser Research Facility

Pulsed N₂ and CO₂ Lasers
11:15 am, 4-370

4562 Enhance Your Life through Hypnosis
11:30 am-12:30 pm, 66-110. * Preregister by Jan 9.

137 Graduate Education Abroad: Pros and Cons
12 noon, Norris Room, 18-290

236 What Can Linguists, Psychologists, and Engineers Communicate about Communication?
12 noon-1:30 pm, 36-537. * Preregister by Dec 1.

401 Biomechanics: How the Human Motor System Works and How To Fix It When It Doesn't
12 noon-1 pm, 3-133

4652 Poetry Workshop
12 noon-1:30 pm, 14N-325

4752 Rhythmic Gymnastics
12 noon-1 pm, T-Club Lounge, du Pont

5053 Premenstrual Syndrome
12 noon-1 pm, 4-159

3050 Cardiovascular and Lung Health
Blood Pressure
12:30-1:30 pm, 4-163

127 Basic Machine Shop
1-3 pm, Chemistry Machine Shop, 6-023. * Preregister by Jan 4.

155 The Ups and Downs of Boston's Artery and Third Harbor Crossing
1-3 pm, location to be arranged*

382 Some Extra Topics from 18.905
1 pm, 2-147

566 Physics Flicks
The Great Conservation Principles
1 pm, 4-339

1150 STCMS: Survival Training for CMS Users
1-3 pm, location to be arranged

4326 The Ada Programming Language
1-2 pm, 2-142

4721 Dance Workshop I: Auditions for Student Performance Piece
1 pm, 201 Walker (auditions)

4077 Neutron Activation Analysis
1:30 pm, NW12-222

4 Highlights of Aeronautics and Astronautics
2-3 pm, 33-206

57 Holography Workshop
2-5 pm, 38-285 (lecture). Preregister by Dec 15.

109 If an Inert Liquid Is Present during a Heterogenous Catalytic Reaction, Does It Make Any Difference?
2 pm, 66-110

258 Expository Writing II: English as a Second Language
2-5 pm*

601 What Is Cognitive Science?
Introduction
2-3:30 pm, E25-111

660 Environmental Design Issues of a Close-in Suburban Community
2-4 pm, 1-273

688 Mini-sessions on Writing a Paper
Getting Started on a Paper
2 pm, 14N-313

691 Two Concepts of Zionism
2 pm, 2-135*

693 Zen and the Art of Public Speaking
2-3 pm, 2-2139. Preregister by Dec 20.

3005 The Pageant of Ibero-American Civilization
2 pm, 4-152

3050 Cardiovascular and Lung Health
Smoking
2-3 pm, 4-163

4200 How To Use the World's Largest Data Bases: On-line Services at Home and Work
2-4 pm, Stein Club Map Room, Science Library (first meeting)

4301 Holographic Imaging
2-5 pm, 38-285*

4435 Art Classes and Facilities at the Student Art Association
Artificial Lighting for Studio and Portfolio
2-4:30 pm, 425 Student Center

977 Teaching Learning Strategies to MIT Students
2:30-4 pm, 10-280*

(New) Religious Expressions in Modern Poetry
3-4 pm, W2A

230 Development of Suitable Equipment To Photograph and/or Televisé the Wildlife in Loch Ness, Scotland
3 pm, 4-402 (first meeting). Preregister by Jan 9.

306 Professions in Linguistics
The Academic Profession
3-5 pm, 36-156

1154 CPL: C Programming Language
3-4:30 pm, location to be arranged

4450 A Radical Introduction to LISP
3-4:30 pm, 10-250*

4510 Fantasy Role Playing in Forgotten Realms
3 pm, 4-153 (first meeting)*

5051 Assertiveness Training
3-5 pm, 24-612. * Preregister by Dec 31.

5 Private Pilot Ground School (Airplane and Glider)
4-6 pm, 35-225

6 Instrument Pilot Ground School
4-6 pm, 33-419

2051 Introduction to Experimentation
4-6 pm, 9-455*

4103 Operations Research at MIT: Research Applications and Academic Programs
4-5 pm, location to be arranged

4759 Wu Tang Chinese Martial Arts Club
4 pm, Burton Dining Hall*

453 World Tour '84
5-7 pm, Kresge (rehearsal)*

4435 Art Classes and Facilities at the Student Art Association
Introduction to Art Materials and Methods
5-7 pm, 425 Student Center

4813 Prayer through Scripture
5-6 pm, Chaplaincy (first meeting)*

4435 Art Classes and Facilities at the Student Art Association

Non-Class Photography
5:30-6:30 pm, 429 Student Center (mandatory orientation)

3011 Roman Holiday: A Cinematic Portrait of a City, Its People, and Art
Fellini's Roma
6 pm, 54-100

4754 Tae Kwon-Do
4-6 pm, T-Club Lounge, du Pont*

4506 Duplicate and Swiss Team Bridge Games
6:30 pm, location to be arranged

4554 Furniture Making for Beginners
6:30-8:30 pm, Hobby Shop, W31-031. * Preregister by Jan 5.

4803 The Life in the Spirit Seminars: An Introduction to Charismatic Christian Spirituality
6:45 pm, Miller Room, 1-114*

3 Historical Film Series on Space Flight
Prelude
7 pm, 9-150

224 Build Your Own Computer
7-9 pm, 1-190. Preregister by Dec 16.

754 Six-Letter File Names Were Never This Bad
7 pm, playroom, seventh floor, Artificial Intelligence Laboratory (first meeting)

2085 East Asian Architecture and Planning
Continuity and Change in Urban Structure: A Case Study of the Aoyama District in Tokyo
7 pm, 3-343

4435 Art Classes and Facilities at the Student Art Association
Basic Darkroom Techniques
7-10 pm, 429 Student Center

4435 Art Classes and Facilities at the Student Art Association
Introduction to Wheelthrowing
7-10 pm, 431 Student Center

4435 Art Classes and Facilities at the Student Art Association
Drawing
7-10 pm, 425 Student Center

4556 Natural Healing and Everyday Health: A Dietary Approach
7-9 pm, 66-154

4557 Winter School
7-10 pm, 400 Student Center. * Preregister by Dec 16.

4653 Introduction to Modern Korean Literature
7-9 pm, 10-280*

4704 Country Western Swing
7-9 pm, 491 Student Center*

4717 Godspell
7 pm, fourth floor, Student Center (auditions)

260 Putting on a French Comedy
8-11 pm, 13-2010*

60 Community Design Center: Architecture Courses and Consultation
9 am-10 pm, 10-280

69 A Structural Approach to Landscape Design
9 am-12 noon, 7-403. * Preregister by Dec 15.

103 Machine Shop Fundamentals
9 am-12 noon, 66-B60

225 Ion Implantation Principles and Techniques
9-10 am, 13-3034. Preregister by Nov 15.

353 Transformation Plasticity
9 am-5 pm, 13-5101

825 Machine Shop Course
9 am-12 noon, location to be arranged*

4300 Introduction to the Laser Research Facility
CW Visible and UV Laser Spectroscopy
9 am, 4-370

4802 The Acts of the Apostles: An Historical-Critical Introduction
9-10 am, 66-144*

2050 Robotics Seminar
9-30 am-5 pm, 35-225

52 Graphics Statics
10 am-12 noon, 5-233*

66 Women Designers and Women Builders
10 am-12 noon, Cheney Room, 3-310

72 Indoor Field Hockey
10 am-12 noon, gym, du Pont

130 Glassblowing Demonstration
10-11:30 am, 6-031. Preregister by Jan 5.

203 Estimating the Dynamic Behavior of Prices and Quantities
10 am-12 noon, E51-307*

305 Current Syntactic Frameworks
Simulation Semantics
10 am-12 noon, 36-156

326 The Ballad in England and America
10 am-12 noon, location to be arranged

351 The Use of Computers in Materials Science and Engineering
The Use of Computers in Ceramic Processing
10 am-12 noon, 4-153

476 Current Trends in Computers and Computer Applications
10 am-12 noon, 24-115

600 What Do Cognitive Scientists Do?
10 am, E10-013

827 Analytical Electron Microscopy
10 am-12 noon, 13-5002*

4300 Introduction to the Laser Research Facility
Raman Spectroscopy
10 am, 4-370

4607 The Theory and Practice of Disinformation
10 am-12 noon, 4-231

4650 Beginning Hebrew
10 am-12 noon, Hillel, W2A. * Preregister by Dec 21.

3050 Cardiovascular and Lung Health
A Display on Heart Health
10:30 am-2:30 pm, 4-163

76 Swimming: Adapted Aquatics
11 am-12 noon, Alumni Swimming Pool

Tues, Jan 10

176 Electronic Trouble Shooting for the Mass Spectrometer
11 am-12 noon, 54-1117. Preregister by Jan 9.

752 How To Speak
11 am-12 noon, 66-110

3050 Cardiovascular and Lung Health
Fitting Fitness in: Success through Enjoyment
11 am-12 noon, 4-163

4755 Reflexology and Health
11 am-12 noon, 1-132

4300 Introduction to the Laser Research Facility
CR699-29 Autoscan Dye Laser
11:15 am, 4-370

25 Mysteries of the Past: Anthropological Detective Stories
The Mystery of the Maya Collapse and Implications for Today's Central America
12 noon-1 pm, 20B-136

82 Molecular Biology in Everyday Life
Development Seen through the Eyes of a Slime Mold
12 noon, 16-134

125 Chemistry Feedback Lunch
12 noon-2 pm, Norris Room, 18-290

231 Singing Acoustics (Timbre, Formants, and Larynx Position)
12 noon, 4-156

252 Business Lunch in French (Dejeuner d'affaires)
12 noon-2 pm, 16-142. * Preregister by Dec 16.

304 Linguistics and Philosophy
How Do We Remember Words?
12 noon-1 pm, 4-145

401 Biomechanics: How the Human Motor System Works and How To Fix It When It Doesn't
12 noon-1 pm, 3-133

1040 Balancing Work and Family: Minority Women Discussion Series
12 noon-1:30 pm. * Preregister by Dec 20.

2063 Bicycle Commuting to MIT
Kolker Room, 26-414, 12 noon-1 pm

3015 MIT Traditions
12 noon, MIT Museum

4435 Art Classes and Facilities at the Student Art Association
Open Life Drawing
12 noon-2:30 pm, 425 Student Center

4710 Israeli Folk Dance for Beginners
12 noon-1 pm, 407 Student Center. *

4805 The Teachings of Pope John Paul II: An Introduction
12 noon-1 pm, 36-144

3050 Cardiovascular and Lung Health
Nutrition for Heart Health
12:15-12:45 pm, 4-163

77 Introduction to Rowing
1-3 pm (section A)*

81 Techniques in Molecular Biology
Electron Microscopy of Biological Material
1-4 pm, 16-542

103 Machine Shop Fundamentals
1-4 pm, 66-B60

155 The Ups and Downs of Boston's Artery and Third Harbor Crossing
1-3 pm, location to be arranged*

229 Product Trade-Offs in Integrated Circuit Design
1-5 pm, location to be arranged*

3015 MIT Traditions
1 pm, MIT Museum

3019 Modern Jazz Dance Class
1-3 pm, T-Club Lounge, du Pont

3050 Cardiovascular and Lung Health
Stress Management
1-2 pm, 4-163

4277 The Great MIT Keel Haul
Theory of Sailing-Yacht Keel Design
1-2 pm, 5-314

4566 Electronics Workshop for Beginners
1:30-3 pm, 4-270. * Preregister by Dec 20.

(New) Film: Hungry Angels
2-3 pm, 20-212

4 Highlights of Aeronautics and Astronautics
2-3 pm, 33-206

55 The Presentation of America's Cultural Heritage
Introduction: International Overview and Present State of Play
2-4 pm, 5-216

128 Acid Rain: Politics, Economics, and Science
2 pm, Moore Room, 6-321

233 Seminars on Optical Logic
2-3:30 pm, 36-428

302 and 601
Imagistic Knowledge
2-4 pm, 3-446

502 Megavitamin Dosing: Fact and Fancy
2 pm, 66-154

503 Factors Which Influence Susceptibility to Cancer
2-4 pm, 66-144

561 Plasmas in the Universe, Neutronless Fusion Reactor, and the Alcator Program
2-3:30 pm (lecture), 4-5 pm (tour), 26-210

688 Mini-sessions on Writing a Paper
Organizing a Paper
2 pm, 14N-313

691 Two Concepts of Zionism
2 pm, 2-135*

1151 STMUL: Survival Training for Multies Users
2-4 pm, location to be arranged

3008 Preparing Your Thesis: An Explanation of Specifications for Thesis Preparation
2 pm, 2-135

3013 Music Library Concert Series
Music Section: Mostly Mozart Orchestra Marathon
2-8 pm, Music Library, 14E-109

4435 Art Classes and Facilities at the Student Art Association
Introduction to Wheelthrowing
2-5 pm, 431 Student Center

4561 Gemstones: An Investment in Beauty
2 pm, 4-159

4853 Electrical Noise: Sources, Transmission, Consequences, Elimination
2-3 pm, 3-133*

4910 Political Theory: Problems in Hegel and Marx
2-4 pm, 2-139

206 Industrial Policy
2:30-4 pm, E51-329

149 Civil Engineering in the Oceans
Engineering in the Coastal Zone Corps of Engineers
3-4:30 pm, 48-316

562 Physics Potpourri
Quasars
3 pm, 4-163

778 The Employment Outlook in Burgeoning Fields
Repairing the Nation's Infrastructure
3 pm, 4-149

2060 Laboratory for Nuclear Science Seminar Series
The Search for the Tau Neutrino
3-4 pm, 26-414

4226 Athena Seminar Series
Project Athena
3:30-5 pm, 34-101

4750 Juggling
3:30-4:30 pm, 12-182*

561 Plasmas in the Universe, Neutronless Fusion Reactor, and the Alcator Program
4-5 pm (tour), 26-210

882 Living with Your Teenager: When and How To Set Limits
4 pm, location to be arranged

2025 Paperfolding Polyhedra
4-5:30 pm, 33-419

4101 Operations Research in the Real World
Topic To Be Announced
4-5 pm, E40-298

4800 Science and Technology as Christian Vocations
4-7 pm, common room, 51-218

751 Automatic Programming
4:30-6 pm, NE43-810A*

4435 Art Classes and Facilities at the Student Art Association
Black-and-White Direct Positive Printing
5-7:30 pm, 429 Student Center

4435 Art Classes and Facilities at the Student Art Association
Calligraphic Design and Illumination
5-7 pm, 425 Student Center

4559 The Epicurean Technocrat
5-9 pm, Country Kitchen, 500 Memorial Drive

4435 Art Classes and Facilities at the Student Art Association
Non-Class Clay
5:30-6:30 pm, 431 Student Center (mandatory orientation)

3001 You Don't Need a Lawyer: Handling Your Own Consumer Complaints
6-8 pm, 4-149*

4551 First-Aid and CPR Classes
Standard First Aid
6-9:30 pm, 491 Student Center. * Preregister by Dec 22.

4553 Make a Table
6-8 pm, Hobby Shop, W31-031. * Preregister by Jan 5.

4564 American Red Cross Advanced First Aid and Emergency Care: Standard to Advanced Upgrade or Advanced Renewal
6-10 pm, 461 Student Center. * Preregister by Dec 16.

4760 Learn Arnis: Philippine Martial Arts
6-7:30 pm, rehearsal room B, Kresge. Preregister by Jan 6.

4376 Wallace Observatory Tour
6:15 pm. Preregister by Jan 4.

68 Creativity and Structuring
7-9 pm, 5-216. * Preregister by Dec 16.

226 Introduction to DEC-20 Assembly Programming
7-8:30 pm, 36-153* Preregister by Dec 22.

325 Images of Women in the Movies
Greer Garson in Pride and Prejudice
7-10 pm, 6-120

4435 Art Classes and Facilities at the Student Art Association
Making Sets
7-10 pm, 431 Student Center

4555 Cooking with Natural Foods
7-10 pm, Senior House

4655 Introduction to New Testament Greek
7-8:30 pm, 66-319*

4657 Esperanto and the Need for an International Language
7 pm, 4-321

4717 Godspell
7 pm, fourth floor, Student Center (auditions)

4761 Advanced Badminton
7-9:30 pm, Rockwell Cage. * Preregister by Jan 10.

4906 Marriage and Parenting from a Biblical Perspective
7-9 pm, 3-133*

5100 Are You Taking the Right Courses Next Term?
7-9:30 pm, 400 Student Center

455 Jazz Improvisation Workshop
7:30-11 pm, rehearsal room B, Kresge. * Preregister by Dec 15.

4435 Art Classes and Facilities at the Student Art Association
Calligraphy
7:30-10 pm, 425 Student Center

4435 Art Classes and Facilities at the Student Art Association
Color Slide Processing and Printing
7:30-10 pm, 429 Student Center

4659 Beginning Czech
7:30-9:30 pm, 4-145. * Preregister by Dec 31.

4812 Tech Catholic Community Discussion Evenings
Women in the Catholic Church
7:30 pm, Moore Room, 6-321

4852 Space Industrialization
7:30 pm, Mezzanine Lounge, Student Center

4902 A Film Survey of Modern China
Mind, Body, and Spirit
7:30 pm, 4-159

(New) Do-It-Yourself Electronics
8-10 pm, 35-225*

71 Clogging Workshop
8-10 pm, T-Club Lounge, du Pont

261 German Folkdance
8 pm, German House

4706 Square Dance
8-11 pm, second floor, Student Center

5101 Ballroom Dance Club Crash Course
8 pm, dining hall, Burton,

Wed, Jan 11

60 Community Design Center: Architecture Courses and Consultation
9 am-10 pm, 10-280

69 A Structural Approach to Landscape Design
9 am-12 noon, 7-403. * Preregister by Dec 15.

106 Semiconductors
9-11 am, 66-110

825 Machine Shop Course
9 am-12 noon, location to be arranged*

1075 Superconductivity: Classic Experiments and Future Uses
9 am-12 noon, NW14-2209

4656 Latin: Reading and Review
9-10 am, 1-134*

4300 Introduction to the Laser Research Facility
High-Resolution Infrared Spectroscopy
9:30 am, 4-370

4854 Wise Astute Guesses (WAGS)
9:30 am-12 noon, 24-115

66 Women Designers and Women Builders
10 am-12 noon, Cheney Room, 3-310

108 Introduction to the Polymer Central Facility
10 am-12 noon, 13-1011

276 Luther Revisited
10 am, 66-148. Preregister by Jan 5.

351 The Use of Computers in Materials Science and Engineering
The Use of Computers in Teaching 3.11
10 am-12 noon, 4-153

402 Interesting Consulting Problems and Solutions
Fuel Cell Steam System Problems
10 am, Miller Room, 1-114

560 Physics: Live
Tour of Nuclear Reactor and Discussion of Physics Experimentation
10 am-12 noon, reception desk, NW12

567 Tools of a Trade: Making Your Own Hammer
10 am, 4-344

750 Robotics and Vision at the Artificial Intelligence Laboratory
10-11 am, 4-231*

890 Applied Human Nutrition in the 1980s
Malnutrition: United States and the Third World
10-11 am, 20A-212

3006 The People's Book Repair
10 am, Archives, 14N-118

3017 The Reserve Packet: Why and How
10 am, E51-317

4076 Tour of the MIT Nuclear Reactor
10 am-12 noon, NW12-202

4435 Art Classes and Facilities at the Student Art Association
Open House
10 am-4 pm, fourth floor, Student Center

4651 Yiddish
10 am-12 noon, W2A. * Preregister by Dec 21.

5103 1984: The Book, the Year
Planning and Discussion Sessions
10 am, Kolker Room, 26-414*

629 Statistical Quality Control
10:30 am-12 noon, E51-328

1152 PASC: Introduction to Programming Using Pascal
10:30 am-12 noon, location to be arranged

1155 STM: Statistical Computing on Micros
10:30 am-12 noon, location to be arranged

100 Coal Combustion: Past, Present, and Future Environmental Issues
11 am-12 noon, 66-110

890 Applied Human Nutrition in the 1980s
Understanding the Origin and Control Of Obesity
11 am-12 noon, 20A-212

4300 Introduction to the Laser Research Facility
New Developments in Tunable Diode Lasers
11 am, 4-370

4352 How To Apply for the Eloranta Summer Fellowship, 1984
11 am, 20C-117

4755 Reflexology and Health
11 am-12 noon, 1-132

300 Lectures in Linguistics
Syntax
12 noon-2 pm, 4-231

401 Biomechanics: How the Human Motor System Works and How To Fix It When It Doesn't
12 noon-1 pm, 3-133

890 Applied Human Nutrition in the 1980s
Advances in Novel Food Sources for Human Diets
12 noon-1 pm, 20A-212

2067 Feminist Readings for Chauvinists
12 noon-1 pm, Kolker Room, 26-414. * Preregister by Jan 4.

3051 Life after Acceptance to Medical School
12 noon-1 pm, 4-163

4550 Beyond Challah: The Secrets of Gastronomic Judaism
12 noon-2 pm, K kosher Kitchen, 50-005. * Preregister by Jan 9.

4752 Rhythmic Gymnastics
12 noon-1 pm, T-Club Lounge, du Pont

9 Considerations of Human Evolution in Mathematics Pedagogy: A Demonstration
12:01-2 pm, 37-186

78 Fitness Testing
1-3 pm, sports medicine room, du Pont

155 The Ups and Downs of Boston's Artery and Third Harbor Crossing
1-3 pm, location to be arranged*

382 Some Extra Topics from 18.905
1 pm, 2-147

801 The Sword and Soul of the Japanese Samurai
1-2:15 pm, E38-615

853 Space Science: What Greases Its Wheels?
1-3 pm, 37-187

4277 The Great MIT Keel Haul
Analysis of the Australia II Keel Fins
1-2 pm, 5-314

4326 The Ada Programming Language
1-2 pm, 2-142

3052 Patient/Physician Relationships: Mutual Expectations?
1:30-2:30 pm, 4-163

4175 IAP Plasma Fusion Center Lecture Series
Introduction to Plasma Physics and Plasma Fusion
1:30 pm, NW14-2209

4 Highlights of Aeronautics and Astronautics
2-3 pm, 33-206

135 Color in Chemistry: A Laboratory Experience
2-5 pm, 4-460. Preregister by Jan 6.

181 Radio-Interferometric Measurement of Crustal Motion
2-3 pm, 54-915

182 Measurement of Indoor versus Outdoor Air Pollution
2 pm, 54-1510

357 See Atoms
2-4 pm, 13-5002

569 Technology and the Arms Race
Interactive Computer Graphics: The Arms Race
2 pm, 8-105

601 What Is Cognitive Science?
What Good Are Visual Delusions?
2-3:30 pm, E25-111

688 Mini-sessions on Writing a Paper
Writing Introductions and Conclusions
2 pm, 14N-313

1156 SASI: Introduction to SAS
2-3:30 pm, location to be arranged

3005 The Pageant of Ibero-American Civilization
2 pm, 4-152

4200 How To Use the World's Largest Data Bases: On-line Services at Home and Work
2-4 pm, Stein Club Map Room, Science Library (first meeting)

4212 Engineers in Spain and Latin America: A Study of Cultural Effects on the Technical Elite
2-4 pm, Spofford Room, 1-236*

208 The Economics of Public Deficits
2:30-4 pm, E51-329

977 Teaching Learning Strategies to MIT Students
2:30-4 pm, 10-280*

104 The Consulting Business
3-5 pm, 66-110

306 Professions in Linguistics
Linguistics in Elementary Education
3-5 pm, 36-156

562 Physics Potpourri
Synchrotron Radiation: A New Bright Light in Condensed Matter Physics
3 pm, 4-163

1153 FORT: Introduction to FORTRAN 77
3:30-5 pm, location to be arranged

157 A Trip to the Annual TRB Meeting
4 pm, 1-132 (organizational meeting)

4100 Student Workshops in Operations Research
Vehicle Route Scheduling over Time
4-5 pm, E40-298

4435 Art Classes and Facilities at the Student Art Association
Mixed Media
5-7 pm, 425 Student Center

4654 Arthurian Legends
5-6 pm, West Lounge, second floor, Student Center

4660 How To Write For a Humor Magazine
5 pm, 400 Student Center

4435 Art Classes and Facilities at the Student Art Association
Photographing People
5:30-8:30 pm, 429 Student Center

4814 Zen in the Art of Archery
5:30 pm, 10-280

3011 Roman Holiday: A Cinematic Portrait of a City, Its People, and Art
Cities: Anthony Burgess' Rome
6 pm, Rotch Library, 7-238

4754 Tae Kwon-Do
6-8 pm, dining hall, Burton*

3 Historical Film Series on Space Flight
Early Rocketry
7 pm, 37-212

73 Ultimate Frisbee
7-9 pm, second floor, New Athletics Center

726 Getting the Job You Want in Industry: A Women's Guerrilla Guide to the Pin-Striped World
7-9:30 pm, 4-153*

2085 East Asian Architecture and Planning
Underground Houses in China
7 pm, 3-343

3054 Health Promotion: Taking Care of Ourselves
Outdoors Medicine
7-9 pm, 4-163*

4211 Colloquia on Contemporary Educational Issues
School: A Radical Approach
7-9 pm, E51-218

4435 Art Classes and Facilities at the Student Art Association
Making Covered Objects
7-10 pm, 431 Student Center

4451 Text Processing on Multies
7-9 pm, 11-205

5100 Are You Taking the Right Courses Next Term?
7-9:30 pm, 400 Student Center

5116 LSC Events and Movies
Alien
7 pm, 26-100

63 Looking for L. A.
7:30 pm, 3-133*

4804 Edgar Cayce Film Festival
7:30 pm, 1-190

(New) Do-It-Yourself Electronics
8-10 pm, 35-225*

453 World Tour '84
8-10 pm, Kresge (rehearsal)*

5116 LSC Events and Movies
Alien
10 pm, 26-100

New Listings

Magic for Magicians and Learners
Rev. H. Frederick Reisz, Jr.
Fri, Jan 6-20, 2-3:30 pm, W2A*

Demonstrations and teaching of card magic, rope and coin magic, mentalism, and ESP. Sponsor: University Chaplains and Lutheran Campus Ministry. Contact: Fred Reisz or Rev. Susan Thomas, x3-2325.

Religious Expressions in Modern Poetry
Rev. H. Frederick Reisz, Jr.
Mon, Jan 9-23, 3-4 pm, W2A

We will discuss religious images and meanings in the work of major American poets such as Sexton, Merton, Bly, Eversen, and Levertov. Sponsor: Chaplains and Lutheran Campus Ministry. Contact: Fred Reisz or Rev. Susan Thomas, x3-2325.

Film: Hungry Angels
Nevin S. Scrimshaw
Tues, Jan 10, 2-3 pm, 20-212

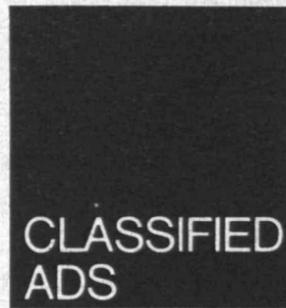
Presentation and discussion of film made in Guatemala to show the causes and consequences of a severe and widespread protein-calorie deficiency in children. Sponsor/Contact: Nevin Scrimshaw, 20A-201, x3-5101.

Do-It-Yourself Electronics
Steve Finberg
Tues-Thurs, Jan 10-Feb 1, 8-10 pm, 35-225*

The experienced electronics hackers of the Electronics Research Society will teach you the practical side of electronics so you can begin to do it yourself. Sponsor: Electronics Research Society. Contact: Steve Finberg, Draper MS 29, x182-8-3754 or ERS, 20B-119, x3-2060.

Firebuffing
Jerry Diaz
Schedule to be arranged.

For those interested in anything related to fire, including the fire service, its equipment and history, bric-a-brac, re-



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INSTRUCTIONS: Ads are limited to one (of approximately 30 words) per person per issue and may not be repeated in successive issues. All must be accompanied by full name and extension. Persons who have no extensions or who wish to list only their home telephones, must come in person to Rm 5-113 to present Institute identification. Ads using extensions may be sent via Institute mail.

Deadline is noon Friday before publication.

For Sale

Car stereo tape deck Pioneer cmprnt & spkrs, \$200. Call Lloyd, 354-4551.

Zenith stereo w/cass, 8-trck, AM/FM radio, 2 spkrs, exc cond, \$200 firm; pr indr/outdr roller skts, sz 7, exc cond, \$20; GE prtbl stereo w/spkrs, \$20. Call J. Blair, x8-2843 Draper or 354-8216 after 5pm.

8' elec bsrdr htr, \$40; man's ski boots, sz 10, \$25; woman's ski boots, sz 5 1/2, \$25; CCM Tacks skts, boy's sz 4, \$15. Call Ray, x8-1396 Draper.

Exqst fl-lngth mink coat, worn twice, fts any sz, \$750. Call Ronni, x3-5055 am or 628-7365 after 6pm.

Commodore 64K cmprtr, never used before, \$150 or best. Call Jamal, x5-9587 dorm, x3-2315 or 494-0271.

Grn Maytag indromat dryer, nds rewiring, used 2 yrs only, free; 7' Sealy Hide-A-Bed sofa, Herculan beige/brwn stripe, \$80. Call Arthur, 862-8771 after 5:30pm.

Hammond "piper" organ, sgl keybrd electric music maker, manl or auto chords. Call Dick, x3-5568.

Man's Spanish shearing coat, fl-lngth, sz 40, dk brwn suede, gd cond, \$150. Call Raja, x5-9880 dorm.

Prtbl elec typwrtr, v gd cond, rarely used, corr w/blck-wht tape, \$140 or best. Call Henrique, x3-2571, x3-4188 or 494-1615.

Pfaltzgraff pottery, srvc for 12 + cmplt set srving pieces, \$180 nw, \$60; cntmpry LR set, 2 piece setnl sofa & 2 chrs, Royal & gld vlvt, quality furn, \$2,400 nw, \$600; Craig 8-trck car stereo w/2 spkrs, \$40. Call Connie, 933-7524.

Ford Pinto rims, \$7 ea. Call Tony, x8-3455 Draper.

Use prtbl Sony shrtwv radio, mdl ICF-2001, cvrs LW, MW, SW, & FM bnds, has digital tuning display & auto scanning, nw over \$200, now only \$110. Call Jack, x8-3235 Draper.

All glass 90-gal aquarium, 72x13x19", on wrought iron stnd w/lght, pmps & othr access, \$300. Call Phil, x2236 Linc.

Xmas gift special, 4 lthr coats, man's 3/4 lngth, sz 40 & 42, salesmn's smpls, \$50 ea. Call Leova, x3-2701.

Exc snow trs for VW Rabbit, 1 yr old. Call Linda, x3-7791.

Pr Sears snow trs, sz G78-13, used less than 500 mi, \$100 nw, asking \$75 or best. Call Marilyn, x7901 Linc or 256-4244 after 5:30pm.

Pr br nw Alpina Nordic 75mm ski boots, Europrn sz 36, US man's 3 1/2, woman's sz 5, \$20. Call Bill, x4182 Linc.

Pr 7" slvr cndlstcks, \$100; steam iron, \$5; 2 sofa blstrs, \$5; Bell & Howell movie camera, \$50; B&H movie prjctr, \$65; L Skiboots, sz 4, \$15; x-entry boots, sz 43 & 6, capt'n's chr, \$30; vanity stool, \$5; firepic scrn, \$5; L dit watch, nw, \$7.50; tstr/oven, \$10; clock radio, \$8; TV ant, nw cond, \$25. Call Ragnhild, x3-6085.

Antq chst of drwrs, \$75; antq dresser w/mirror, \$75. Call Russ, x3-5466 or 494-8311.

Fireprf pad for woodstv, 3x5' quarry tile on wonderbrd, looks grt, \$25; pr of worn A78-13 snw trs on Pinto rims, \$10. Call Penn, x8-2872 Draper.

19" color TV, electrnc tuning, almt nw, asking \$250. Call Antonio, x3-4315 or 494-8570.

Pr mntd snw trs, fits Vega, Astre, poss othr 4-lug whls, \$20; Sanyo cass/FM stereo radio, \$35. Call Bill, 492-1034 eves.

Ice-racing skts, Candn-made, like nw, sz 7 1/2, \$40. Call Barbara King, x3-7515, 9am-2pm.

Dirct-connect modem, Novation D-CAT, 300 baud, originate/answer, full or half duplex, mntr, slf-tst, \$100; prntr, Centronics P1, 80 char/ln, 2 lines/sec on alum paper, \$80. Call David, x3-7424 or 566-3441.

Playpen, \$20; stroller, \$25; walker, \$8; booster seat, \$5; yogurt mkr, \$3. All in v gd cond. Call Lorraine, 734-8065.

Dwnhll skipnts, Wh Mntn, sz Jr M, never used, nw \$70, asking \$30; boots, sz 5, \$35; x-entry boots, sz 5, \$5; poles, \$5; girl's ice skts, \$7.50; boy's skts, \$7.50. Call Hank, x8-1604 Draper or 443-9207.

11-23 systm: MMV, Floating point, 160KB, 5 serial ports, 30" enclsd rollard rck, power contrlr, 9-slot Q-bus, RX01s & cntrlr, many floppies, 11-03 brd. Call 492-0180 after 5pm & wkends.

Zenith 13" color TV, \$145; BR set, \$145; DR tbl w/6 chrs, \$99; chst of 5 drwrs, \$35; metal dsk w/chr, \$60; many more. Call Vassilis, x3-4117 or 497-8052 eves.

Antq ornate mirror, about 4x5', free to anyone who would lovingly restore it. Call Wilson, x3-5121 or 876-6326.

Pr Sears E78X14 non-rad bldd snw trs, \$50. Call Harold, x3-1870 or 646-3846.

TI-99/4A home cmprtr, keybrd, 32K memory expnsm card, Peripheral Expnsm Sys, dsk drv & cntrlr card, TI Extn Basic, 4 mo old, list price, \$1,348, will sell for \$600. Call Sharon, 742-2432.

B&W 19" TV, v gd cond, \$40 or best. Call Roger, x3-2691.

Canaries, singing M, \$40; F, \$15; cages, \$15; xtra lrg 6-dwr woodn dsk, \$70; rthnd 3-dwr gr metal dsk, \$25. Call Leonard, x3-6894 or Diana, 321-3981 eves.

DEC VT-180 cmprtr sys w/CRT, 4 dsc drvs, 132 col smart prntr, sftwr, select wrd prcssing, Multiplan, M-Basic, \$2,200. Call Dick, 1-668-1205.

2 Crager-spoked 13" rims for Ford, 4 lugs w/locking caps, nw everything still in pkgage, \$35 ea. Call Shelley, 272-3996.

Vehicles

'69 BMW cpe, recnt rads, valve job & trans, rns well, gd int, rsty, nds exh, \$300. Call Charlie, x8-1839 Draper or 265-8609.

search, and special projects. Sponsor/contact: Jerry Diaz, E19-207, x3-4736.

Changes

4759 Wu Tang Chinese Martial Arts Club
Mon-Thurs, Sat, Jan 9-Feb 1, 4 pm (Mon, Wed), 5 pm (Tues), 5:30 pm (Thurs), 10 am (Sat), Burton Dining Hall (Mon-Thurs), New Athletics Center (Sat) (correct schedule and location)

3019 Modern Jazz Dance Class
Tues, Thurs, Jan 10-26, 1-3 pm, T-Club Lounge, du Pont (new time and location)

5101 Ballroom Dance Club Crash Course
Tues, Thurs, Jan 12, 19-31, Feb 2, 8 pm, dining hall, Burton; Mon, Wed, Jan 16, 18, 8 pm, Sala de Puerto Rico, Student Center (additional dates)

756 Producing Pretty Pictures from Pixels: Some Experiments with Computer Art
Tues, Jan 17, 1-3 pm, eighth floor playroom, Artificial Intelligence Laboratory (new date)

778 The Employment Outlook in Burgeoning Fields
Automation and Computer-Aided Design has been cancelled.

381 Computer Graphics
Wed, Jan 18, 2 pm, 2-338 (correct date)

4278 Innovations in Wind-Propelled Ships
Fri, Jan 20, 1-3 pm, 5-134 (location arranged)

3 Historical Film Series on Space Flight
Manned Spaceflight in the 1970s has been cancelled.

4225 Introduction to UNIX and the Athena System Software
Mon-Wed, Jan 23, 9 am-12 noon, Jan 24, 25, 10 am-12 noon, 34-101 (change of time Mon meeting only)

3 Historical Film Series on Space Flight
To the Present
Thurs, Jan 26, 7 pm, Marlar Lounge, 37-252 (new location)

3018 The Waltz Project: Demonstrations of the History of Dance
Thurs, Jan 26, 6-9 pm, Salmon Lobby, first floor, Sloan School of Management (new time and location)

840 Technology Bargaining and Workplace Democracy
Fri, Jan 27, 9 am-12:30 pm, E40-298 (location arranged)

'71 Olds Cutlass Supreme, exc running cond, highly rbl, ps, auto, AM radio, V8, \$850. Call Tony, x812-260 Linc Lab Flight Facility.

'73 Subaru statn wgn, 76K, 4-dr, 4-spd, 28mpg city/42 hwy, reg gas, \$500 or best. Call Lorraine, x3-3020 or 492-6563 eves.

'74 Plymouth Valiant, auto, in rning cond, 74K, \$300 or best. Call Danny, x5-6474.

'75 Toyota Corona 5-spd, eng recntly rebilt, lots of pep, nw brks, rst reprd, 100K, \$750 or best. Call R. Janet, x3-3470 or 926-0263.

'75 Chev Malibu wgn, 102K, gd motor, batt, trs & muff but rsty bottom, \$350. Call Claes, x3-5988 or 489-3161 after 5pm.

'76 Toyota Corolla, \$2,375. Call Anthony, 246-1625 after 6pm.

'76 VW Rabbit, 2-dr, auto, rad trs, trans whls ovrhauled, nw batt, many nw parts, exc cond, 56K, \$2,450 or best. Call Hiroshi, x3-6852.

'76 Chevy pick-up, 1/2 ton,

Lerman to direct Athena

(continued from page 1)

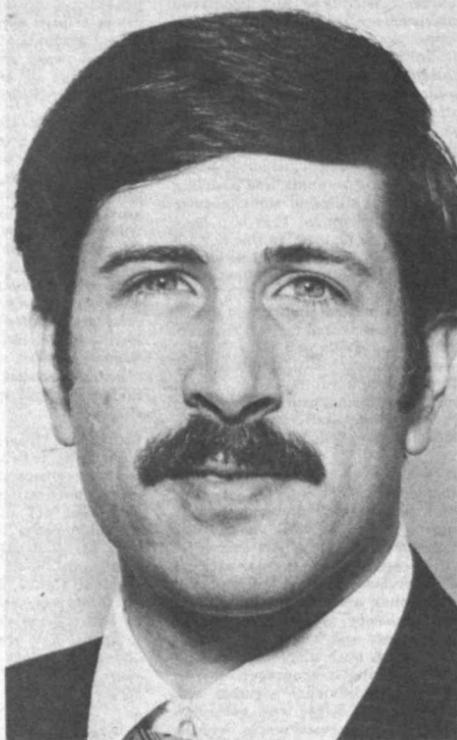
tional structure, with the manufacturing participants, with the Athena committees and with the Athena staff, Dean Wilson said.

Professor James D. Bruce, director of information systems at MIT, also has major operational responsibilities with Project Athena, both in his capacity as a key member of the Athena team and in his capacity as director of information systems for MIT, Dean Wilson said.

The associate directors of Project Athena are the senior full-time staff members assigned to the project by Digital and IBM. They are, from Digital, Edward Balkovich, and from IBM, Richard Parmalee.

Dr. Balkovich, a principal engineer with Digital at the company's Hudson, Mass., facility before joining Project Athena, has been with the company since 1981. Dr. Balkovich holds the BA (1968) in mathematics from the University of California, Berkeley, and the MS (1971) and PhD (1976) in electrical engineering and computer science from the University of California, Santa Barbara.

Dr. Parmalee came to Project Athena from the IBM Cambridge Scientific Center where he has been a member of the Operating System Technology Group since 1975. For three years before that he was at the IBM Scientific Center in Paris where he managed the computer network project. Before coming to IBM he worked as a research associate with the Computer-Aided Design Project in the Department of Mechanical Engineering at MIT. He holds the BS (1959) from the University of Illinois and the MS and PhD (1966) in mechanical engineering from MIT.



Dr. Lerman

In 1975 he was appointed to the faculty as assistant professor in the Department of Civil Engineering. He was named the Winslow Career Development Assistant Professor in 1977. Two years later he was promoted to associate professor of civil engineering. Early in 1983 he was promoted to the rank of full professor.

Professor Lerman's honors and awards include the Graduate Student Council Teaching Award (1977-78); the Civil Engineering Effective Teaching Award (1976-77), the Lilly Teaching Award (1976-77), National Science Foundation Traineeship and Tau Beta Pi.

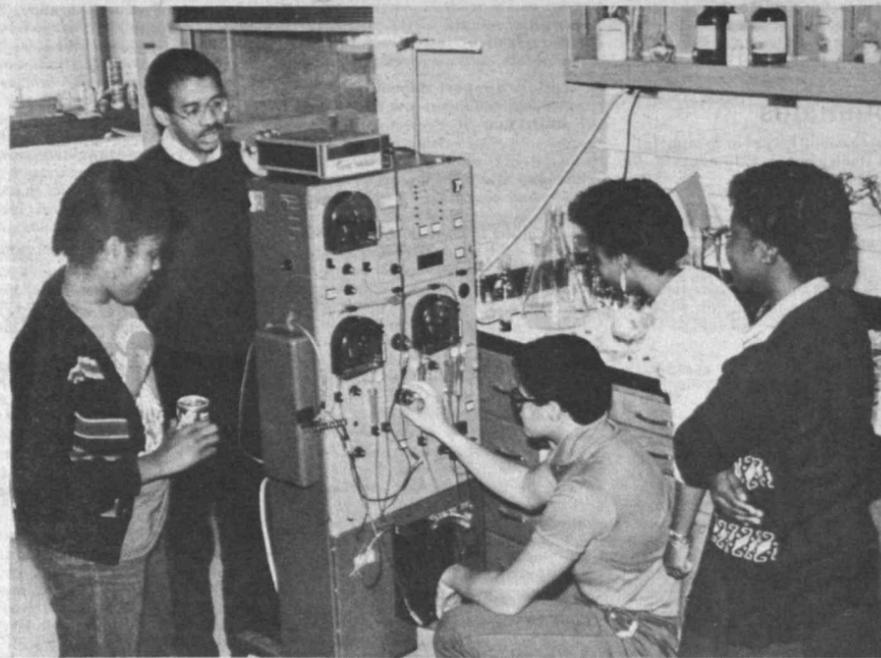
He was a member of the Transportation Research Board's Committee on Urban Activity Systems from 1974-83 and is now a member of the Committee on Passenger Travel Demand Forecasting and the Committee on Traveller Behavior and Values. From 1973 to 1978 he was a member of Volunteers in Technical Assistance. He is also an associate editor of Regional Science and Urban Economics.

He is the author or co-author of 20 papers in refereed journals, nine proceedings of refereed conferences and nearly two dozen other major publications.

Rosenblith is speaker

Dr. Walter A. Rosenblith, Institute Professor and former Provost, was among the speakers at the 323d anniversary celebration of the Royal Society of London last month.

Professor Rosenblith responded on behalf of the invited guests. His address was entitled, "Let One Hundred Academies Bloom."



CAMBRIDGE STUDENTS from Rindge and Latin School examine equipment at the Department of Chemical Engineering during a recent visit here arranged by the National Society of Black Engineer's Ambassador Program. Doctoral candidate James D. Oliver III of San Antonio, Texas, standing behind equipment, explains its operation and purpose to, from left, Nadine Orceel, Ramon E. Abrew, Marjorie Lundy and Caprice Fair. The Ambassador Program at MIT is directed by Karl W. Reid, senior in materials science and engineering. Twenty-one students from Cambridge and Boston high schools visited MIT last month. It was the second overnight program this year. Students attended from Boston Technical High School, Boston Latin Academy, Burlington High School and Mario Umana High School, Boston, as well as from Cambridge Rindge and Latin High School.



Dr. Parmalee



Dr. Balkovich

The staff of Project Athena is divided into three functional organizations: The administrative/operational group; the system architecture and software development group, and the educational, liaison and planning group.

Professor Lerman, who holds the SB (1972), the SM (1973) and the PhD (1975) from MIT, was a Sloan Research Trainee in 1973-74 as an SM candidate involved in transportation systems analysis research. In 1974-75 he was a Motor Vehicle Manufacturers Association Fellow at MIT and worked on models of residential location.

R1273, Technical Assistant, Nutrition and Food Science
R1272, Prin. Research Scientist, Earth, Atmospheric, and Planetary Sciences
R1195, Digital Logic Design Engineer, Lab for Computer Science
R1256, Research Scientist-Experimental, Plasma Fusion Center
R1255, Research Scientist-Experimental, Plasma Fusion Center
R1253, Sponsored Research Staff, Center for Cancer Research
R1248, Research Specialist, Earth, Atmospheric & Planetary Sciences
R1238, Sponsored Research Staff, Center for Cancer Research
R2134, Research Scientist, Research Laboratory of Electronics
R1211, Research Engineer, Francis Bitter National Magnet Laboratory
R1210, Research Specialist, Artificial Intelligence Laboratory
R1209, Research Specialist, Artificial Intelligence Laboratory
R1197, Research Associate, Center for Cancer Research
R1194, Systems Programmer, Lab for Computer Science
R1185, Systems Programmer, Laboratory for Computer Science
R1183, Research Associate, Technology Adaptation Program
R1182, Research Scientist, Artificial Intelligence Laboratory
R1181, Research Specialist, Artificial Intelligence Laboratory
R1180, Research Engineer, Artificial Intelligence Laboratory
R1179, Research Scientist, Artificial Intelligence Laboratory
R1178, Research Scientist, Artificial Intelligence Laboratory
R1177, Research Scientist, Artificial Intelligence Laboratory
R1176, Research Engineer, Materials Science and Engineering
R1175, Sponsored Research Staff, Center for Materials Science & Engineering
R1174, Sponsored Research Staff: Postdoctoral, Laboratory for Nuclear Science
R1172, NMR Spectroscopist, National Magnet Laboratory
R1160, Research Scientist, Biology
R1140, Research Associate, Materials Science & Engineering
R1135, Research Scientist, Earth, Atmospheric & Planetary Sciences
R1134, Research Specialist, Energy Laboratory
R1133, Research Engineer-Scientist, Energy Laboratory

R1132, Research Engineer, Energy Laboratory
R1121, R1124, R1126, Sponsored Research Staff, Laboratory for Nuclear Science
R1125, R1123, R1122, Sponsored Research Staff, Laboratory for Nuclear Science
R1111, Research Associate: Computer Aided Design Systems Engineer, Mechanical Engineering
R1106, Technical Associate, Center for Cancer Research
R1084, R1086, Research Scientist—Experimental, Plasma Fusion Center
R1080, Materials Scientist, Materials Processing Center
R1048, Systems Manager, Experimental Music Studio, Humanities
R1047, Research Associate, Nutrition & Food Science
R1002, Technical Assistant, Laboratory for Computer Science
R988, Experimental Physicist, Center for Space Research
R986, Postdoctoral, Center for Space Research
R983, Research Associate, Materials Science & Engineering
R927, Research Staff, Laboratory for Computer Science
R856, Research Scientist, Artificial Intelligence Laboratory

LIBRARY SUPPORT STAFF
B2689, Library Assistant III, Catalogue Dept.
B2660, Library Assistant V, Catalogue Department
B2656, Library Assistant V, Catalogue Department
B2662, Library Assistant III (part-time), Catalogue & Acquisitions

SECRETARY/STAFF ASSISTANT
B2692, Sr. Secretary (part-time), Earth, Atmospheric & Planetary Sciences
B2691, Sr. Secretary, Mechanical Engineering
B2690, Sr. Secretary, Mechanical Engineering
B2687, Sr. Secretary (temp), Electrical Engineering & Computer Science
B2636, Administrative Secretary, Office of the Dean for Student Affairs
B2678, Sr. Secretary, Laboratory for Computer Science
B2676, B2677, Sr. Staff Assistant, Center for Advanced Engineering Study
B2650, Staff Assistant (part-time), Center for Advanced Engineering Studies
B2635, Administrative Secretary, Chemistry
B2627, Sr. Secretary—Technical, Plasma Fusion Center

ma Fusion Center
B2626, Staff Assistant, Experimental Music Studio
B2620, Sr. Secretary, Lab. for Architecture & Planning
B2605, Administrative Secretary, Chemical Engineering
B2610, Sr. Secretary, Center for Advanced Engineering Studies
B2601, Sr. Secretary, Laboratory for Electromagnetic & Electronic Systems
B2575, Sr. Secretary, Earth, Atmospheric & Planetary Sciences
B2557, Sr. Secretary, Mechanical Engineering
B2501, Sr. Secretary, Earth, Atmospheric & Planetary
B2481, Sr. Secretary-Technical, Mathematics
B2454, Sr. Secretary, Upward Bound Program
B2335, Secretary (20 hrs), Mechanical Engineering
B2261, Sr. Secretary, Alumni Association

TECHNICAL SUPPORT STAFF
B2693, Technical Assistant (part-time), Earth, Atmospheric & Planetary Sciences
B2638, Technical Artist, Laboratory for Nuclear Science
B2216, Design Draftsperson—Electrical, Physical Plant

OFFICE ASSISTANT
B2688, Diet Aide, Clinical Research Center
B2686, Dental Assistant (part-time), Dental Clinic
B2668, Administrative Assistant, Mathematics
B2665, Administrative Assistant, Whitaker
B2663, Office Assistant, Libraries
B2643, Editorial Assistant, MIT Press
B2487, Accounting Assistant, Comptroller's Accounting Office

SERVICE STAFF
H894, Technician A (E-M), Electrical Engineering & Computer Science
H892, Technician A (E-M), Francis Bitter National Magnet Laboratory
H754, Technician A (E-M), Chemistry
H831, Technician A (E-M), Energy Laboratory
H854, Technician B (Electro-Mechanical), Mechanical Engineering
H845, Technician A (Radiation-Protection), Environmental Medical Service

WHITEHEAD INSTITUTE
Facility Manager, Whitehead Institute
Technical Assistant, Whitehead Institute
Secretary IV, Whitehead Institute

IRS makes change in 'imputed' income

Most faculty, staff and employees with more than \$50,000 of MIT group life insurance will have smaller amounts of additional "imputed" income as a result of recent IRS action. The change is effective January 1, 1983 and the lower amounts of taxable income will appear in the W-2 statement of earnings MIT will issue in January, 1984.

"If the amount of your MIT group life insurance coverage is over \$50,000, part of its cost may be taxable income to you," explained Kerry B. Wilson, Manager of Compensation. "This taxable income is called 'imputed income' and must be reported as additional income on your tax return."

Each year MIT calculates the amount of this imputed income and sends special W-2 forms only to individuals who must report it.

The amount of the imputed income is based on a formula using an IRS standard premium

rate table—not MIT's actual premium rates. For some years the insurance industry has complained that the old IRS table of standard premium rates, published in 1966, overstates the value of the insurance, resulting in higher imputed income for the individual.

As the chart below shows, the new rates are considerably lower, particularly for older individuals:

IRS Cost Assumptions by Age Groups

All costs are per thousand dollars of coverage per month.)

Age	Current	New
45-49	.40	\$.29
50-54	.68	.48
55-59	1.10	.75
60-64	1.63	1.17

The table shows examples of old and new imputed income amounts for three levels of contributory life insurance.

In January the Benefits Accounting Office will calculate the amounts of imputed income based on the new tables and send special W-2 forms to the affected individuals.

Age	Assumed Level of Contributory Life Insurance					
	\$80,000		\$120,000		\$160,000	
	old	new	old	new	old	new
45	\$ 0.00	\$ 0.00	\$ 72.00	\$ 0.00	\$ 176.04	\$ 30.84
50	68.76	0.00	307.20	139.20	545.64	281.64
55	219.96	93.96	660.00	366.00	1100.04	638.04
60	410.76	245.16	1105.20	718.80	1799.64	1192.44

D. Grant Bagley, radome developer, dies

D. Grant Bagley, 71, of Wilton, N.H., who helped develop and set up the protective radomes for the nation's Distant Early Warning system in the Arctic, died December 11 after being stricken with a heart attack in his home. Mr. Bagley, a former Billerica resident, was a retired research and mechanical engineer at MIT Lincoln Laboratory.

He was born in Lund, Idaho, and earned his BS degree in mechanical engineering at the University of Utah in 1940. He briefly worked for two firms, Pace & Turpin Co., a power system design organization, in 1941, and Smith-Hinchman-Grylls, a consulting firm, as an assistant project engineer for the development of power plants and small arms manufacturing plants in 1942.

During World War II, he joined the MIT Radiation Laboratory in Cambridge where he established a mechanical test laboratory to qualify radar equipment for harsh operational environments. After the war, Mr. Bagley joined the United Shoe Machinery Corp., where he developed shoe machinery and assembled a model shoe factory.

Oscar Manuppelli

A funeral Mass will be held at 9:30am Thursday, Dec. 22, at St. Joseph's Church, Everett, for Oscar Manuppelli, a retired supervisor in Physical Plant. Mr. Manuppelli, 64, of Everett, died suddenly Monday. He worked at MIT from 1951 until his retirement in 1981.

Mr. Manuppelli, a Marine veteran of World War II, is survived by his widow, Mae Petacchi Manuppelli; two sons, James P. of Tennessee, and Robert P. of Salem; a daughter, Sharon Novello of Malden; four sisters; two brothers, and five grandsons. Memorial contributions may be made to the Heart Fund.

Mr. Bagley joined Lincoln Laboratory when it was organized in 1952 and became involved with the development of rigid radomes necessary for the Distant Early Warning radars in the Arctic and continued this work as a project engineer for North American Aviation Co., in Columbus, Ohio. He then returned to Lincoln in 1963 to help engineer a communication satellite testing laboratory.

In the early 1960s Mr. Bagley also helped to design the Haystack radar radome. The Haystack facility was built for satellite communications development, and is now used as a radio/radar observatory under MIT administration for the Northeast Radio Observatory Committee.

In recent years, Mr. Bagley contributed to the development of the cryogenic and high vacuum technology used to simulate the environment of outer space for communication satellite testing.

He leaves his wife, Rachel E. (Holman) of Wilton; two sons, John H. of Dallas, Texas, and Paul D. of Milford; a daughter, Robin Wood of Beryl, Utah; a brother, G. Dale of Altadena, Calif.; a sister, Ruth Robinson of Salt Lake City, Utah; and seven grandchildren.

Dorothy E. Earle

Dorothy E. Earle, 73, of Cambridge, a former member of the Housing staff, died December 16. She had worked at MIT from 1947 until her retirement in 1975.

Mrs. Earle is survived by a son, Bruce C. Earle, of Malden; three daughters, Beverly Ferazani of Winchester, and Dorothy DeAngelis and Paula Brady of Cambridge; two sisters, 11 grandchildren and four great-grandchildren.