



President of the Air Line Pilots Association, John J. O'Donnell, conducts test of cockpit display system in simulator.

## MIT Computer System Gives Pilot Extra 'Eye'

(This article appeared in the Herald Traveler on Sunday, July 11 and is reprinted here by permission.)

By Charles H. Ball

It is something of a paradox, certainly, but the trend in aviation has been to concentrate control of airlines in people who are on the ground.

The reasoning, simply, is that only the ground controller has all the necessary information—derived from radar readings, flight plans, radio communications and the like—to make the vital decisions as to how a plane should be guided so as to avoid other planes.

The idea, then, is to have the pilot sit more or less in lonely isolation in his cockpit—and be given only as much navigation and traffic control data as he absolutely needs.

Theoretically, this relieves the pilot of burdensome detail and enables him to focus on other matters requiring his attention.

Pilots have become increasingly wary of the process, however, in the belief that absolute control from the ground is neither natural nor right nor the most efficient and safe way of directing aircraft. Some way must be found, they are saying, to put more options in the hands of pilots—something that is sometimes available now in clear weather, but not in bad weather conditions—and to give pilots a double check on information being fed to them by controllers.

And so, in the tradition of searchers for a better mousetrap, pilots have been beating a path to a laboratory on the second floor of the building that houses the electronic systems laboratory of the Massachusetts Institute of Technology.

What they have come to see, and test, is a computerized cockpit display system—information presented on a television-like

screen—that is designed to tell them what is around them at all times.

At the risk of over-simplification, it gives to the pilot virtually all of the information available to the controller, through computer linkups. Thus, it has the capability of making air traffic control a cooperative system in which the pilot can join in the decision-making process of the best and most direct way of carrying out his flight.

This, obviously, could increase the efficient use of air space (and airports) and could also be of immense help in avoiding aerial collisions.

Two men who have had key roles in the development of the system—known as the Traffic Situation Display—are Mark E. Connelly of Concord, the project manager, and Thomas Imrich, 24, a whiz-bang young engineer and pilot who soon will be lending his talents to the Air Force.

Imrich, who received a master's degree from MIT's Aeronautics and the Astronautics Department in June, is from a flying family.

He is an experienced flier himself, with an airline transport rating. His wife is a stewardess with Allegheny Airlines and his father, whom he calls the project's "chief unpaid consultant," is a DC-9 captain with Allegheny.

Connelly and Imrich were visited Friday by still another pilot—but also someone quite special.

He was Eastern Airlines Captain John J. O'Donnell, a Lowell native and now a Bedford resident, who is the new president of the 31,000-member Air Line Pilots Assn.

Imrich had said of the system that "pilots love it like crazy."

After trying it himself in a simulator, O'Donnell joined the chorus of praise.

"It's the greatest thing I've seen in many years," he said,

(Continued on page 2)

## Education Research Center Studies Learning Process

Even with students away for the summer the Education Research Center is busy "breaking the tyranny of the bells and sloping desks," in the words of Professor Jerrold Zacharias, director of the Center.

Many ERC staff and faculty members are continuing their study of curriculum reform and new teaching methods. Others are passing the Center's ideas along to academic leaders from high schools and other universities.

In one program groups of high school teachers bring their plans for curriculum changes to ERC. The center offers its facilities to these teachers and has ERC

staffers suggest how the teachers can accomplish their goals when they return to their schools in the fall. Participants come from many states and the local high schools in Natick, Framingham, Lincoln-Sudbury and Weston.

The Unified Science Study Program, probably the best-known of ERC's education experiments around the Institute, has as its summer students faculty members from North Shore Community College, University of Massachusetts-Boston, Tufts and Salem State College. John Vournakis of ERC and Roger Richards of North Shore Community College, who

(Continued on page 2)

## Ruth Dawson Is Institute's Own Goodwill Ambassador

As a collective group, the Institute's people are usually referred to as "the MIT community." What is *community*? To paraphrase Daniel Webster, it is a unified body of individuals interacting in a common location. But isn't the MIT community more than this?

An emphatic YES is the answer of a lady who should know. Miss Ruth Dawson, an active member of the community for 30 years, says, "MIT is one great big happy family. We have a special sense of community, or sense of family, because we share our interests, activities, feelings, experiences, and above all, our friendships.

"Unfortunately, some of us see the Institute only as a place to work or study. But those who look for it will find a special fellowship which exists in and between all levels of the Institute, whether student, employee, faculty or staff."

Before coming to MIT in 1941, Miss Dawson worked as a bookkeeper in a Boston firm. She decided to move to MIT because she wanted to work with people. She says, "I've never regretted coming to the Institute because the people here, young and old alike, are so friendly. I've made many wonderful friends over the years. If new members of the community make an effort to meet people, they will find the same friendliness which has kept me here for 30 happy years."

Miss Dawson's career has been quite successful. Armed only with a high school diploma, she started as a clerk in the Bursar's Office. She soon moved to the Payroll Office and in 1956 was appointed to a staff position. In 1964 she was transferred back to the Bursar's Office, this time with the new title of Assistant Bursar. During the next eight years her smile became a familiar sight in the Bursar's Office in Building 10.

Now, she has been given a new assignment. On the staff of the Investments Accounting Office, she will be dealing with inventories and appraisals of the Institute's investments.

Excited about handling MIT's stocks and bonds, Miss Dawson

says, "I'm convinced that life begins at 61. Here I am starting a challenging new job which promises to be as much fun as my first job was 30 years ago. And on top of that, I've just moved into a new apartment, or as I think of it, a retirement pad."

Miss Dawson credits her successful career to the people for whom she has worked. "My superiors have always expressed confidence in me, much more than I ever had myself. If they hadn't asked me to do things which were challenging and a little above my capabilities, I'd probably still be a clerk in Accounts Receivable. Trying is important. You don't have to fight to move ahead. There are wonderful opportunities available at MIT for those who try. And I've found this to be especially true for women."

Miss Dawson notes that the nature of work at MIT has changed. "It used to bring people together, like the days during World War II when everyone worked so hard and long. Now, more and more offices are using computers and the work load is cut up into little pieces. The feeling of working together tends to decrease, but I don't think it will be lost completely at MIT because our people are so friendly."

Having worked with people of all ages, Miss Dawson has never felt the generation gap because "the young people here are a remarkable group. They've helped me and my ideas stay young. The mixture of young and old is wonderful and, I think, vital to the sense of community we have here."

Miss Dawson firmly believes that work must be mixed with pleasure. Some of her activities include membership in the Silver Club, the Institute's social organization for women with 25 or more years of employment, and the Cambridge Business and Professional Women's Club. As a member and past chairman and co-chairman of the Silver Club, she has seen the "enthusiasm and gratitude people feel for the Institute. After all, if they hadn't been

## Kispert Appointed Institute Secretary

Malcolm G. Kispert has been appointed to the new post of Institute Secretary. The announcement of the appointment was made by the Chairman of the Corporation.

This post is organized to serve as the focal point of an intensified effort to augment the Institute's financial resources from private individuals capable of making important contributions to MIT. Mr. Kispert will join in planning and developing a program of contributions by alumni and friends of the Institute. In his new assignment he will join the office of the Vice President and Secretary of the Institute, working closely with the Development Office and the Alumni Association. He will report to the Chairman of the Corporation through the Vice President and Secretary and provide support to the senior officers of MIT.

As Institute Secretary, Mr. Kispert brings his extensive background and experience of having served in various administrative posts directly under four presidents of MIT. He will have special responsibilities for developing plans for a major effort to secure increased scholarship and loan funds for MIT students.



—Photo by Margo Foote

happy here, they wouldn't have stayed long enough to become members of the club." She has also been active on the bowling team in the Comptroller's Office.

At a recent community-wide reception honoring retiring Dr. James R. Killian, Jr., Miss Dawson presented him a scroll on behalf of the Silver and Quarter Century Clubs. She looks back on the occasion as "quite an experience. I was rather weak-kneed at the thought of following Mr. Johnson, Dr. Stratton and Dr. Wiesner at the podium, but it gave me such pleasure to say 'Thank You' to Dr. Killian, that I will long remember it."

Miss Dawson herself will be retiring in a few years, but she looks on it as another step forward. "Even though I won't be ready to stop working, my retirement will allow someone else to advance and it will also prepare me for the day when I can't work. I hope to find a job which will keep me busy because I refuse to sit at home and collect social security."

If ever MIT had a goodwill ambassador, it is Ruth Dawson.





Left to right, Linda Read, Maxine Moffett, Barbara Burse and Gregory Dunham discuss the Clerical Training Program.

—Photo by Karl Seeler, '75

## Training Staff Is Close Knit Group

The Clerical Training Program's little family of administrators and instructors doesn't just get up and go their separate ways when five o'clock rolls around. Barbara Burse, Gregory Dunham, Maxine Moffett and Linda Read spend a lot of time together after hours.

"Getting together after work is good for us," Gregory says. "We have to interact a lot while we're on the job, and this way we can do it better."

Together they make the Clerical Training Program go. The program has been teaching typing and office practices to about 25 people with meager or no previous skills. Gregory teaches math, Maxine handles the basic education class, Linda teaches typing, and Barbara coordinates the whole program. In addition, they all also serve as program counselors.

All four did a lot of volunteer work with various community groups before coming to MIT. Barbara used to be a training program instructor for Action for Boston Community Development, while Maxine taught at the state-run experimental committee for Community Educational Development school and the New School in Dorchester. Linda worked for Program Head Start while she lived in west Harlem. Gregory was formerly an electronics teacher for the Neighborhood Youth Corps.

Away from their office the four spend a lot of time together. "Linda's getting me into camping now," says Maxine. "We sew together a lot, too." The girls are all proud of their sewing abilities, and they all make some of their own clothes.

Maxine, who likes to travel, goes to New York with Linda now and then on weekends. "I've driven across country four times," Maxine adds, "and it's dynamite." Barbara, like Maxine, has the travel bug.

Linda and Maxine supported themselves in unusual ways before coming to MIT. "After I graduated from high school," Linda says, "I got a small inheritance—I emphasize the *small*—and got paid two dollars an hour on a work study program while I was going to Columbia." Last summer Maxine had a small business selling jewelry she had made herself. Starting from work with round paper clips, she has recently learned techniques with gold and silver and often wears her attractive handiwork.

Eventually Linda would like to "live in northern Vermont or New Hampshire." Gregory has ambitions of becoming a lawyer, while Maxine hopes to teach education in college classes. Barbara's plans are more immediate. "I'm going to San Francisco in a couple of weeks," she says, "and I can't wait."

### GA Calendar Suspended

Because of austerity affecting Graphic Arts, the Graphic Arts academic calendar will not be printed this year. Graphic Arts hopes conditions will permit publication of the popular calendar to resume in 1972.

## 11 From Community Get LIS Diplomas

Two years ago the Lowell Institute School started a special evening course in Computer Technology. Several MIT employees enrolled in the program and received Certificates at recent LIS graduation ceremonies.

They are: Mrs. Alice J. Carter, Miss Ligia M. Johnson, Miss Jeanne M. McLeod, Clifford E. Peacock, Pellegrino D. Pepicelli, Hilary F. Weldon, Wayne L. Young and William E. Mallory, all from Draper Laboratory; Miss Chuan Chou from Nutrition and Food Science; Louis H. Hirshberg from Lincoln Laboratory; and Miss Theresa E. Speaks from the Personnel Office.

LIS will offer courses in Computer Technology again in September. The two-year program includes classes in computer programming, mathematics, computer operation, system programming, elements of accounting and management, and general science. Students are also required to participate in project laboratories.

Designed primarily for underemployed persons with limited educational backgrounds, the most important prerequisites for admission to the program are a desire to learn and a willingness to work. Tuition costs are kept at a minimum and a few scholarships are available for deserving students.

Applications for admission are available now in the LIS office, Room 5-113, Ext. 4895, and must be submitted by September 1.

## Simulator Praised

(Continued from page 1)

adding that it would be a "valuable tool" and "take a lot of tension out of the cockpit" by "putting all the information in front of the pilot."

There are still some problems to be overcome, including the philosophical one that is bound to be raised by those who question the value of having ground controllers share their responsibilities with pilots.

Crocker Snow, the Massachusetts director of aviation and long an advocate of returning a degree of control to the cockpit, said once that this was "not meant as a crack at our air traffic controllers, who are doing a magnificent job."

Rather, he said, it was simply an acknowledgment that ground control, "with all of its millions of dollars' worth of radars, computers, et al, doesn't hold a candle to what a pilot can do with the computer he is born with, provided he is fed the necessary information."

Some great technological advances have emerged from behind laboratory doors at MIT.

Another one may be in the making.



Dennis Tully, '73, and Sharon Ambuhl prepare a bacteria culture for their summer project in USSP.

—Photo by Margo Foote

## USSP to Begin at Other Schools

(Continued from page 1)

spent this past year at ERC, are the co-directors of USSP's dissemination program. Each school is developing plans to start its own USSP-type program this fall. The Esso Educational Foundation and the Carnegie Corporation are contributing most of the support for this summer program.

Within USSP itself, education researchers are continuing to develop new curricula for various broad subject areas. For example, through a project called "What People Eat" students in the fall will learn chemistry, biology and even some history, all relating to a study of their own diets. In a series of self-paced experiments each student saves samples of his own food and analyzes them for basic constituents, nutritional and caloric value and amino acids. Inexpensive microtechniques and apparatus are being developed for the project to permit students to work with very small quantities of food. Some of the summer program staff members are developing a simple gas chromatograph, to be used in the project, made from tubing, dishwashing detergent and a Bunsen burner.

About a dozen faculty and students from the Detroit Institute of Technology are at ERC this summer to begin a three-year cooperative program to help DIT reorganize and strengthen its academic program. Their emphasis is on student-directed learning, and they are developing self-paced courses in traditional subjects that will begin in September. Partially supported by federal grants, the program is being carried out at ERC but involves an MIT-wide effort.

During August a two-week program supported by the National Science Foundation will help about 20 faculty members from as many colleges develop self-paced undergraduate courses in mathematics and most of the sciences. Self-pacing, also known as the Keller Plan, arranges a semester's material in a sequence of work

units, each with its own clearly defined learning objectives. The student must master one unit before proceeding to the next. He does this at a pace that he chooses—he may take anywhere from a few weeks to more than a semester to finish a complete course. Under the Keller Plan upperclassmen serve as tutors, and lectures are abandoned as a teaching tool. In fact, ERC staffer Ben Green, in charge of this program, says that "students may be rewarded for good work by being allowed to attend certain special lectures."

ERC is also eager to compare notes with other academic leaders and see what they are doing. Professors Robert Halfman, Margaret Macvicar and William Ted Martin and senior research scientist Edwin Taylor are now at Colorado College for the Danforth Workshop on Liberal Arts Education. During their stay they are relaying their findings to and learning from representatives of other universities.

## Here and There

—Friday (July 16) is the deadline for faculty members to submit details of first term courses and seminars relating to public policy or science and technology in society. Completed forms should be returned to Miss Mary Morrissey in the Information Center, Room 7-111, who will prepare a compendium of the information.

—Brigadier General Robert A. Duffy, who will become the vice president of the Draper Lab at the end of July following his retirement from the Air Force, recently received the 1970 General Thomas D. White USAF Space Trophy. The award was established by the National Geographic Society to honor the civilian or military member of the Air Force who has made the most outstanding contribution to US progress in aerospace. General Duffy was cited for his achievements in the development of reentry systems.

## Andersen Appoints Exhibitions Head

Professor Wayne V. Andersen, chairman of the Committee on the Visual Arts, has announced the appointment of Miss Kasha Linville as Director of Exhibitions. She succeeds David Kibbey, who has resigned after five years of excellent service to the visual arts program.

Miss Linville will have full responsibility for planning and organizing exhibitions in Hayden Gallery and elsewhere throughout the Institute; she will also be responsible for maintenance and distribution of MIT's fine collection of original works of art; and will, in other ways, be charged with further development of the Institute's non-academic visual arts program.

Miss Linville is a graduate of Barnard College in 1964, and has done post-graduate work at Columbia University and the School of Visual Arts in New York. From 1967 to 1968 she was assistant to the director of the Washington Gallery of Modern Art, where she acted also as business manager and liaison with the Board of Trustees. In 1971 she assisted in the organization of the Corcoran Biennial, and also served as co-director of an experimental exhibition facility on Greene Street in New York City.

Miss Linville has had administrative and writing experience with federal agencies in Washington. During 1969-70 she was a program specialist for the Department of Cultural Affairs for the City of New York and in 1970 was grant consultant for the Printmaking Workshop in New York.

Miss Linville's articles on modern art have appeared in *Artforum*, *Arts Magazine*, and *Art News*; she is now a staff reviewer for *Artforum*.

### TECH TALK

Volume 16, Number 2

July 14, 1971

Editor  
Joanne Miller

Staff Writers  
Robert M. Byers  
Peter M. Close  
Steve Grant  
Linda Omohundro  
Ty Rabe

Business Manager  
Paul E. Johnson

*Tech Talk* is published 50 times a year by the Institute Information Services, 77 Massachusetts Avenue, Cambridge, Mass. 02139 and distributed free to all members of the MIT community. Additional copies are available in the Information Office, Room 7-111, or in the News Office, Room 5-105. Mail subscriptions are \$7.50 per year. Please address news and comment to the Editor, Room 5-105, Ext. 2701.



# THE INSTITUTE CALENDAR

July 14  
through  
July 23

Send notices for July 22 through July 30 to the Calendar Editor, Room 5-105, Ext. 1766 by noon Friday, July 16.

## Mrs. Bowe Takes Student Aid Post

The appointment of Mrs. Dorothy L. Bowe as Assistant Director of Financial Aid, effective August 1, has been announced by Jack H. Frailey, Director of Financial Aid. Mrs. Bowe's primary responsibility will be to assist students and their families in describing and resolving financial problems related to study at MIT.

In addition to contributing to decisions regarding policy and procedure within the Financial Office, Mrs. Bowe will concentrate on the analysis of individual financial need. She will also participate in the on-going review of data necessary for defining standards in student budgets, and maintain close relationships with fund donors through correspondence and reports.

Mrs. Bowe has been a member of the Office of the Dean for Student Affairs since 1964 and has been Assistant to the Dean for the past three years. She came from the Department of Metallurgy when Professor John T. Norton was appointed Foreign Study Advisor. In addition to working with students seeking foreign educational experience, she assisted Mrs. Jacquelyn Mattfeld, the first woman Associate Dean for Student Affairs.

Mrs. Bowe provided valuable support during the early years of McCormick Hall and the subsequent rapid increase in the numbers of women students and for their integration into all levels of the community. She also provided essential continuity, insight and knowledge when Professor Emily L. Wick succeeded Dean Mattfeld in 1965.

Mrs. Bowe's sensitivity and insight into the needs and aspirations of both men and women students and the always-open door to her office have made her a primary resource to students. Her contributions to the Pre-medical Advisory Program and to the growth, development and involvement of women students at the Institute have been invaluable.

In her new capacity Mrs. Bowe will continue to have close contact with students and extend and amplify her long-standing working relationships with the faculty and staff.

## Seminars and Lectures

Wednesday, July 14

**Effects of Spin-orbit Interaction in Small-gap Semiconductors \***  
**Dr. Włodzimierz Zawadzki**, Institute of Physics, Polish Academy of Sciences. Sponsored by the Francis Bitter National Magnet Laboratory. 4:15pm. Second Floor Conference Room, Magnet Lab. Tea and coffee served at 4pm.

Thursday, July 15

Introductory lecture on Transcendental Meditation as taught by Maharishi Mahesh Yogi. Sponsored by the Students International Meditation Society. 8pm. Student Center, Room 473. \*

Friday, July 23

**Chemically Induced Dynamic Nuclear Polarization**  
**Professor Hanns Fischer**, Physikalisches-Chemisches Institut der Universität Zurich. Sponsored by the Department of Chemistry. 3pm. Room 4-270. \*

## MIT Club Notes

**Baker House SPAZ Jogging Club \*\***  
Jogging around BU and Harvard Bridges. Daily 10:45pm. Baker House, Second Floor West.

**MIT Pistol and Rifle Club \*\***  
Course in basic pistol marksmanship. Beginning Thursday, July 15 and continuing for five consecutive Thursdays, 6:30-8:30pm. DuPont Gym Pistol Range. Limited to the first 20 adult members of the MIT Community who apply. Fee \$10. For information call Herald Sulahian, x3989.

**Science Fiction Society \***  
Every Friday, 5pm. Student Center, Room 421.

**Classical Guitar Society \*\***  
Summer classical guitar classes every Monday and Thursday, 5pm. Room 1-132.

**Outing Club \***  
Every Monday and Thursday, 5pm. Student Center, Room 473.

**Nautical Association \*\***  
Basic Sailing Shore School. Repeated every Wednesday throughout the summer, 5:15pm. MIT Sailing Pavilion.

**MIT/DL Duplicate Bridge Club \*\***  
Every Tuesday, 6pm. Student Center, Room 473.

## Music

**A Summer Festival of Chamber Music \***  
Presented by the Department of Humanities. Program includes Beethoven Piano Sonatas Op. 2 no. 1, Op. 53, Op. 111 and the Bagatelles Op. 126 played by pianist John Buttrick. Tuesday, July 20, 8pm. Kresge Auditorium, Little Theater. Free admission.

## Student Center Gets Warm as Air Conditioner Breaks

The breakdown of the Student Center's air conditioning system two weeks ago was caused by a broken five-dollar brass valve.

After the valve cracked, the coolant inside solidified and a hermetic seal on one of the system's pumps ruptured. The whole apparatus ground to a halt. Result: one warm Student Center.

The source of the trouble was difficult to find. Physical Plant's Andrew MacDougall, foreman for Heating, Ventilation and Air Conditioning, had only a few obvious symptoms from which to draw conclusions about what had gone wrong. A trouble-shooter from the Trane Company, which built the system, couldn't come to look at the problem until after the long July 4 weekend. When he came he agreed that all four of the sys-

tem's pumps, located in the basement of the building, would have to be taken apart and investigated.

Inside one pump they found the broken seal. They installed a new one and removed the lithium bromide coolant. Mechanical Services Superintendent Stanley Palmer said he expected new coolant to arrive "momentarily."

The area hardest hit by the breakdown was the service area in Lobdell. "The people at the serving tables took the whole thing very well," commented Salvatore Lauricella, director of the Student Center's dining service. "They're the backbone of this place, the ones that keep it going." Fans were brought in to help lessen the heat, and the servers themselves took occasional short breaks for relief.

## Movies

**The Opium Trail \*\***  
Sponsored by SACC and CCAS. Thursday, July 15, 8pm. Student Center Mezzanine Lounge. Free.

**Queen Christina \*\***  
Lecture Series Committee. Saturday, July 17, 7 and 9:30pm. Room 10-250. 50 cents.

**Passionate Plummer \*\***  
Lecture Series Committee. Wednesday, July 21, 7 and 9:30pm. Room 10-250. 50 cents.

## Dance

**Modern Dance Class \*\***  
MIT Dance Workshop. Intermediate/Advanced. Every Thursday, 7pm. McCormick Gym.

**Israeli Folk Dancing \***  
MIT Folk Dance Club. Every Thursday; party last week of each month. 7:30-11pm. Student Center, Room 407. Basics taught from 7:30-8pm.

**Friday Afternoon Dance Break \***  
MIT Folk Dance Club. International Folk Dancing on the oval lawn in front of Kresge Auditorium. Every Friday, 12-1pm.

**International Folk Dancing \***  
MIT Folk Dance Club. Every Sunday, 7:30pm. Student Center, Sala de Puerto Rico.

**Dance Development Class \*\***  
Every Monday, Wednesday and Friday, 5:15pm. McCormick Gym.

**Balkan Dancing \***  
MIT Folk Dance Club. Basic, Intermediate, Advanced. Every Tuesday; party first week of each month. 7:30pm. Student Center, Room 407. For more information call Jane Weiman, 876-5609.

**Square Dance Club \***  
Every Tuesday, 8pm. Student Center, Room 491. For information call x6213.

## Exhibitions

**Seymour Lipton: Recent Sculpture \***  
20 sculptures from the past five years, of nickel, silver or bronze on Monel metal. Sponsored by the MIT Committee on the Visual Arts, courtesy of Marlborough Gallery, NY. Drawings by Seymour Lipton are on exhibit in the Hayden Lobby. 1-5pm daily through the summer. Hayden Gallery and Courtyard, through September 19.

**Steamboat Design \***  
Details of Robert Fulton's steamboat "North River" and other early American steamboats. Hart Nautical Museum, Building 5, First Floor, through the summer.

**Deep-Ocean Mining \***  
Material from Sea Grant Project Office. Hart Nautical Museum, Building 5, First Floor, through the summer.

**Main Corridor Exhibitions \***  
Presented by students and departments. Buildings 7, 3, 4, 8.

## Athletics

**Summer Rugby \***  
Every Tuesday and Thursday, 5pm. Briggs Field.

## Religious Services and Activities

**Christian Bible Discussion Group \***  
For details contact Professor Schimmel, x6739. Every Thursday, 12:15pm. Room 20B-031.

**Islamic Society Prayers**  
Every Friday, 12noon. Student Center, Room 473.

**Roman Catholic Mass**  
Every Sunday, 11am. MIT Chapel.

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

## Don't Forget

Join your friends at the Muddy Charles Pub, 110 Walker Memorial, 11:30am to 7:30pm daily. \*

\*Open to the Public  
\*\*Open to the MIT Community Only  
\*\*\*Open to Members Only  
\*\*\*\*Freshmen interested in departmental program encouraged to attend.



## CLASSIFIED ADS

### Professor Tucker Dies at Age 63



Professor Gregory Tucker of the music faculty died on July 7, following a four-month illness.

Professor Tucker, a noted pianist and composer, was director of the Humanities Series which brought outstanding musicians to Kresge each year for a series of five concerts. He also directed the Chamber Music program of informal concerts in the Music Library.

Born in 1908 in New Philadelphia, Pennsylvania, Professor Tucker was graduated from the Combs Conservatory of Music and attended the Curtis Institute in Philadelphia. For four years he taught at the Edgewood School in Greenwich, Connecticut, before joining the faculty of Bennington College in 1933.

Professor Tucker came to the Institute from Bennington in 1947. He has also served on the faculties of the Longy School of Music, Harvard University and was a visiting lecturer at Wellesley. In 1957 Professor Tucker was awarded a Guggenheim Fellowship with which he spent a year in Rome composing music.

He composed a variety of musical works. Until 1947 his works largely were in the field of the theater, including pieces for ballet and modern dance. He composed the music for *The King and the Duke*, a musical adaptation of *Huckleberry Finn*, which was presented as a part of the dedication ceremonies for the opening of Kresge Auditorium in 1955. Among his recent work are two concertos for piano and chamber orchestra.

As a pianist, Professor Tucker appeared with such groups as the Juilliard Quartet and the New Music Quartet and as soloist with the Zimble Sinfonietta and the Boston Pops.

Professor Tucker is survived by his wife, the former Elizabeth Ketchum, two sons, Dr. Gregory Tucker, Jr. of Cleveland, and John Tucker of Cambridge, and two daughters, Susan Tucker of Cambridge and Mrs. Lauren Blacklock of New York.

A memorial service for Professor Tucker will be held at the Institute in the fall.

### For Sale, Etc.

K tbl & 4 chrs, \$60; rugs, \$10, \$15, \$50; pole lamp, \$8. Rick, x5835 or 524-4545.

Royal port typwr, \$20; Presto vertical broiler, nvr used, \$10; Wilson tennis racket w/press, \$4; Cortland tennis racket w/press & cover, \$10. Terri, x6834 or 734-8561 evgs.

Bose 901 spkrs, Dyna 120 amp, Dyna PAS3X preamp, Dual 1019 chgr w/Shure V15-II cart w/sell together or sep. Call 492-2608.

Surf Rod, 10', new, \$15. Ray x419 Draper 7.

Walnut chest w/4 drws, \$30; study tbl & chr, exc cond, \$30; fl lamp, \$10; 19" b/w TV, \$25; port phono, \$7. Call 491-2288 evgs.  
Rossignol Strato man's skis & boots, size 10 1/2, \$30; lady's skis & boots, size 7 1/2 N, \$20. x1855.

Moving must sell: GE refrig w/ht; 2 percolators; Kodak movie proj; Brownie Hawkeye camera; Westhse port elec oven; 8x10 oriental rug, cran w/blue; dbl bed w/dark mahog bdrd; best offer. Call 489-1315.

Baby grand piano, gd cond, \$395. Call 729-6899.

Free: old elec hotplate. x4414.

Garage sale in Belmont Sat. 7/17, 9-5, furniture, clothing, all inexpen. Call for directions 237-5778.

US postal stamps for sale at discount-any denomination. Prakash, x2961.

White metal K cabinets, 2x3x6, \$10; lg low cof tbl, \$10; sm serv tbl on wheels w/drwr, \$5. Robert, x1812 or 489-2794.

Dbl wh sink, 42"x21", w/faucet, spray, disposal, \$25. Bart, x5011.

Nikon, 300 mm, f4.5 lens; Auto-Nikkor, w/leather case, exc cond, \$175. Samuel, x470 Draper 7 or 484-9137.

Port refrig; 3 level dish/wash, exc cond, \$100. Call 272-3574.

Fully equip for balanced set up aquarium 29 gal high, 5 mo old, perf cond, unique attractions, \$100; w/sell \$50. Marie, x3706.

Sgl bed, 1 yr old, \$60; asst tbls. Peggy, 566-0715 evgs.

Frigidaire air cond, 9500 BTU, yr old, \$120 or best offer. Joespa, 749-0008 evgs.

GE 16 cu ft upright freezer. Flakas, x6430 or 489-3739.

Frederick air cond, 23,000 BTU, \$50. Lon 244-5955.

Gibson: air cond, 1 yr old, 5,000 BTU, \$100, avail 8/6; dresser 5 lrg drws, exc cond, \$50. x1855.

RCA TV/R/rcrd player, \$25. Call 395-7265.

Orange lthr reclining chr, \$45; bkcase, \$15, 2 match mod swivel chrs, \$15 ea, 2-pc sectional couch, \$25, etc. Call 661-1626.

Everett upright piano, located on ground floor, you move, \$60. Tom, x6389.

Bunk beds, exc cond, \$50; chrs, 6, \$2 ea; hi fi, \$10. x7953 or 876-8725 evgs.

Walnut br set, dresser, \$45; chest, \$40; bed frame w/head piece, \$30; matt & box spr, \$55. James, x7487 or 491-4993.

Amer spinning wheel circa 1820, oak & maple, \$40. Call 969-4773.

Pr speakers AR3A, \$300. Tony, x5713 Linc.

Sterling Humidifiers, 2, one lrger than other, 3 sp & fins for air direction; GE vac clnr w/attach. Call 354-0993.

Conv sofa, single bed, 40" w, gd cond, \$75. Gary, x6862.

Ads are limited to one per person per issue and may not be repeated in successive issues. All ads must be accompanied by full name and extension or room number. Ads may be telephoned to Ext. 2707 or mailed to Room 5-105. The deadline is 5pm Friday.

GE wash/dry, \$45; Kenmore washer, \$20; 3,500 W Onam generator, \$50; amateur radio equip, incl Harvey Wells transmitter, make offer. Richard, 256-0770.

AMC air cond, 9000 BTU, 120V works fine, \$50; br new Gdyear ww tire 735x15, power cushion, \$15. Al, x5562 Linc.

GE refrig, gd cond, \$25. Joe, x2608 or 265-1283.

Polaroid color pk 180 film, \$3. 75 ea. Donald, x7398.

Tire 78Tx14 ww, wide tread, fiberglass, Pontiac rim, \$12; LC Smith port typwr, \$15. Ray, x5394 Linc.

Dunham hiking boots w/vibram soles, F size 10, M size 9, \$20. Peetig, x2851.

Pr snows, 650x13, new, \$30; Cold Spot refrig, gd cond, \$10. Mary, x7158 Linc.

Mich X tire, 185x15, w/tube, \$12.50. O'Neal, x4301.

Dresser w/3 drws, \$10; dropleaf tbl, \$5; chr, \$4; grn carpet, 36"x60", \$8; all in exc cond. Sylvia, x2021.

Nikkor S auto f/1.4 50mm lens, \$70. Walt, x7234.

Port all channel TV's, \$50 ea. Al, x5371 Linc.

2 snows, first lined, 7.35x14, moving to Calif, best offer. Sherry, x6711.

Bonanza tent, umbrella 9'x9', 3 sleep bags. x1867 or 662-9588.

Set new Oriental rugs, sizes 9'x12', 6'x9', 35"x55", \$250 or best offer. Yun, x5877 or 354-7424.

Electro lux vac clnr, exc cond, best offer over \$30. David, x286 Draper 7.

King size water bed, 6'x7'x1', incl liner, fitting & hose adapter, \$35. Call 742-8984, keep trying.

Fabiano mt boots, 9 M, exc cond, used only 5 times, snowsealed, \$25 or best offer. Meer, x6007 or 277-4077.

### Vehicles

'61 SAAB, 2 stroke, radials, R, and runs, \$100. Peters, x230 Linc.

'62 Mercedes 220S, 4 dr, blue sedan, some body rust, otherwise in exc cond, \$680. Dertouzos, 527-2598.

'62 MGA, Mark II 1600 blk rdster, 52K, gd cond, many extras. Call, x301 Linc or 237-9484.

'63 Ford Galaxy hrtdp, \$250 or best offer. Call 864-8802.

'63 SAAB wgn, blue, snows. John, x7931 or 581-0261.

'64 Corvair--no engine, gd tires & body, best offer. Call 438-6134.

'64 VW w/sunrf, gd cond, \$450. Bob, x2537.

'64 VW sedan, new muffler & brakes, \$250. Call 284-1868 evgs.

'67 Dodge Polara, air cond, new shocks, exhaust system, lower ball joints, clean. Paula, x4701.

'67 Mustang, burgundy, exc cond, fstbk, 390 cu", pull down seat, auto, snows, best offer. x3942.

'68 Dodge Charger, red w/vinyl roof, 383 cu", exc cond, many extras. Frank, x206 Draper 7 or 745-6419 evgs.

'68 Dodge van camper, 6 cyl, auto, AM-FM R, includes camping equip, \$1500, negotiable. Larry Storch, 868-0346.

'68 VW sqbk, R, new paint, muffler, brakes & 2 tires, exc cond, \$1650. Karl, x4404 or 277-4935 evgs.

'69 Austin Healy Sprite, Mark IV, low mileage, exc cond, red, w/blk int, \$1100. Call x7736 Linc or 796-3637.

'69 Chevy sport van camper, comp camp rig, exc cond. Lisa, x2046 or Pete, x7815 or 244-4189 evgs.

'70 Datsun 4 dr, R & H, 18K, \$1695; '70 VW sunrf, 14K, \$1695. Jim Lambert, x3839 or 692-8853.

'70 Mustang, air cond, vinyl top, AM-FM, std, 18K, V8, exc cond. Call 783-2574 evgs.

'71 Volvo wagon, 7K, 5 mos old. Hans, x1867 or 662-9588.

'71 VW sqbk, orange, sunrf, 15K, \$2400. Call 484-6374.

Dunebuggy, Corvair eng, loaded, \$1595. Bob, 275-8710 evgs.

'66 Honda 160 scrambler, needs front end repair, \$75 or best offer. Charles, x7519 or 876-5961.

Sears 12' Alum boat, w/full hp Mercury '69 eng, all access. Call 784-5562.

### Animals

Seal pt Siamese Kittens, raised w/children, trained, registd mother, \$20. Dick, x5430 Linc or 653-8189.

Free: kittens, 1 F Calico, 1 M all blk, 6 wks old. Bill, x5554 Linc.

Free: friendly, slightly insane, neutered male cat, talkative, eats anything. Call 489-0460.

Irish Setter puppies, AKC, born 6/3. Call 369-1164.

Reg Eng Setter puppies, 4 wks old, b & w, 3M & 1F, \$100 ea for M, \$75 for F. Manuel, x6980 or Mike, 663-2491.

Free 6 Gerbils. Mary Jane, x6224 or 364-4172 evgs.

### Housing

Back Bay: 1 br apt comp furn, avail 9/1, \$215. Dolores, x1973 or 266-2034 evgs.

Bcn HI, lrg 6 rm unfurn apt, \$350, avail 9/1. Larry, x2627 or 227-2842 evgs.

Fla: 3 br ranch, on west coast, w/10'x12' screened porch, \$12,500. For more info, call 776-2045 evgs.

Linc--custom ranch, 1 acre, 2 bdr, full basement, 2 car garage, screen porch, tool house, \$39,900. Call 259-8776.

Somerv: 2 bdr apt, partially furn, air cond, balcony, avail now, \$230. Gerald, x5933 or 547-4868.

Somerv: mod 2 bdr apt, air cond, ww carpet, park, \$230, avail 8/15 w/option to renew lease. E. Banks x6032 or 623-2996.

Somerv sublet apt, avail 8/1 w/opt to renew. Sandy, x3533.

Woburn: sublet mod 2 br apt w/balc, tennis, air cond, pool, exposed beam ceiling, minutes from 128 & 93, reasonable rent. Ralph, x7320 Linc or 933-6116 evgs.

### Lost and Found

Found: Beige plastic box full of slides & film. Call x4741.

Lost: man's wrist watch w/expansion band, vic of duPont, reward. x5550 or x5559.

### Wanted

Babysitter for Camb area, weekdays, incl some weeknights. Some Housewk. Elizabeth, 329-1236.

Ride to DC 7/16 or 23, returning 7/18 or 25. x2270 or x1981.

Old erector sets. Dan, x293 Draper 7.

Visiting Prof seeks inexpens studio apt for sublet fall semester only. Call x5777.

Trunks for overseas shipping. Berol, x6041 or 232-1431.

Volunteers to pick up surplus food for Camb senior citizens. Bob Miller, x7388.

Bicycle, 3 spd mens or ladies, 26". Al, x6712.

Fem working rmt for nicely furn 2 br apt, own rm, Comm Ave on T line, avail now. Call 782-6482 after 4pm.

Trailer home, gd cond, 2 or 3 B. Call 369-5612.

Babysitter, one child (6 mos old) for working mother, starting in Sept. Pref someone in Somerv/Camb area. David, x3959 or 491-2127.

Fem rmmate for Brookln apt, own R, 9/1. Call 232-4519.

Book: *Switching Circuits and Logical Design* by Samuel Caldwell, '58 ed, \$2. Mel, x4192.

I w/ buy used books especially in Biological Sciences. Niyi, x1618.

Male rmmate for furn rm, K & bath privileges, near MIT, \$70. Call 868-8331 evgs.

### Miscellaneous

Professional St. Claus, Jim Lopez, avail all year. Jim, x443 Linc or 372-5295 (Haverhill)

Naples U Prof w/ tutor Italian or Latin, reas rates. Gerardo, 364-4118.

### Response Is Light to "Write Ons"

People who work at the Institute seem to be quite content, judging from the response to the "Write On" forms distributed last winter by the Office of Personnel Relations.

To date only 60 people have used the form to voice their suggestions and complaints. No clear area of aggravation has surfaced, though vending machines, parking problems and employment and benefits policies have each elicited several comments. Some individual complaints have centered on such easily remedied problems as providing better lighting or more soap.

Many people have used "Write Ons" to offer suggestions, both light-hearted and serious. A couple of respondents have requested photo-identification cards for Institute personnel, and one suggested a payroll deduction plan for automobile insurance. Others wrote requesting car-pools for employees and a sidewalk cafe for the Institute.

"Write On" was devised as an additional means for individuals to communicate with the Institute. Most questions and criticisms are normally discussed between an employee and his supervisor. Personnel is particularly interested in receiving constructive criticism and positive suggestions for improvements. "Write On" forms are available in departments and laboratories throughout the Institute. If none are available in your area, call Mrs. Speck, Ext. 4270, to request a supply.