



Graphic by Mark Minkacy

Computers to cut MIT energy use

By Eileen Mannix

MIT's facilities management system, presently limited to eight buildings, will undergo a considerable expansion in the near future, according to Thomas Shepherd, Director of Utilities. The system consists of a computer network that monitors utilities in various MIT buildings, turning them on and off as they are needed. This saves a considerable amount of energy, according to Shepherd. Shepherd predicts that by mid-1978 MIT will have a centralized operations system for energy conservation which will encompass thirty-five campus buildings.

MIT officials see this major development as a response to an increasing need for greater efficiency in energy utilization, particularly in the face of rising costs.

The unit now controlling the electrical systems of the campus' eight biggest consumers was installed last December. Though the initial expense was considerable, there has been a 25 percent decrease in energy consumption, and the projected savings for the year stand at \$100,000.

Once the new system has been installed, Shepherd estimates that energy consumption will drop by 35-40 per cent, compared to 1972's figures. Savings for each year are expected to run from 15-20 million dollars.

The computer will master-

mind control clocks that save power by shutting down systems such as motors, pumps and fans, when buildings are unoccupied. Air conditioners and ventilators, which used to run uncontrolled, will be turned off when not in use.

The extent of the controls, Shepherd said, depends on the nature of the building itself; many of MIT's facilities are research-oriented, and their massive hood exhaust systems will be



Dave Schaffer

Thomas Shepherd

run selectively, instead of constantly.

In those buildings where no controls now exist, a mechanic is needed to alter internal conditions by adjusting the building's systems. Once the new system has been installed, however, the computer will be able to control the temperatures of individual rooms.

The present system will be scrapped when the newer one is installed, since the latter will include those eight buildings in the total of thirty-five that Shepherd expects it to control.

The central network will be located in building E18, headquarters for the Physical Plant.

Kresge concert use questioned

By Mike McNamee

Use of Kresge Auditorium for a "showcase concert" to promote a Boston-area rock group has raised questions about the proper use of MIT facilities by non-MIT commercial groups.

The concert, held Saturday night in Kresge, was sponsored by the Student Center Commit-

tee in an arrangement with the manager of the group "Buck" to "showcase" the group for local radio and recording executives.

Although the concert was sponsored by an MIT organization and held in MIT facilities, publicity on campus was minimal and only about 200 MIT students got tickets for the

show. Under the agreement with the Student Center Committee (SCC), the manager of "Buck" sent 400 tickets to local radio stations and to recording companies, and arranged for 600 tickets to be sold on other area campuses.

According to SCC chairman Larry Moyer '78, SCC decided in June to sponsor the concert because "it was a no-risk deal." John Curtis, the manager of "Buck," "was willing to assume all the risks of selling tickets and taking whatever loss there might be so he could have this concert," Moyer explained.

Free show planned

Under the agreement with Curtis, the "showcase" concert was to be followed by a free concert for MIT students this spring. Moyer said the SCC would probably not ask the group to return because of the lack of interest in the concert. According to Campus Patrol estimates, only 450 people attended the show.

(Please turn to page 2)

News Analysis

Boston primary today narrows candidate field

Boston voters decide today who will have a chance to run for real in the November 4 election. Today's non-partisan preliminary battle pits incumbent Mayor Kevin White against challenger State Senator Joseph Timilty in the race holding the greatest interest for most voters.

Two minor party mayoral candidates are expected to be eliminated.

The fields of candidates for the Boston School Committee and the Boston City Council will also be winnowed out in today's contest.

Boston has a strong-mayor form of government; there is very little the City Council can do other than get in the way. The council does have the power of the purse, except over the largest single city expenditure, the schools, which are run by the Boston School Committee.

The School Committee has virtually no control over what is spent for schools these days either, because of their continuing opposition to a court order by U.S. District Judge W. Arthur Garrity Jr.; Garrity found a 10-year pattern of deliberate segregation in building patterns and assignments determined by the Boston School Committee. The committee never thought the state's Racial Imbalance Act or federal desegregation guidelines were really applicable to Boston.

As a result, Garrity has ordered the committee to spend whatever is necessary for desegregation. They have fought a rear-guard effort of harassment, forcing Garrity to personally order even trivial expenditures.

Therefore, a big chunk of the money in Boston is really under the control of a federal judge who can't be voted for or

against.

A Boston Globe poll shows White with a 2-1 lead over Timilty, and reaffirms the minority status of U.S. Labor Party candidate Robert Gibbons and Socialist Workers Party candidate Norman Oliver, who together polled 1 per cent to White's 52 per cent and Timilty's 25 per cent. Although both White and Timilty are

(Please turn to page 5)

Duplicate key charge upped to \$5

By Thomas Mayer

Students will now have to deposit \$5 instead of \$1 to obtain a second key to their room, in a change caused by increased concern over dorm security and the increasing number of keys lost in recent years.

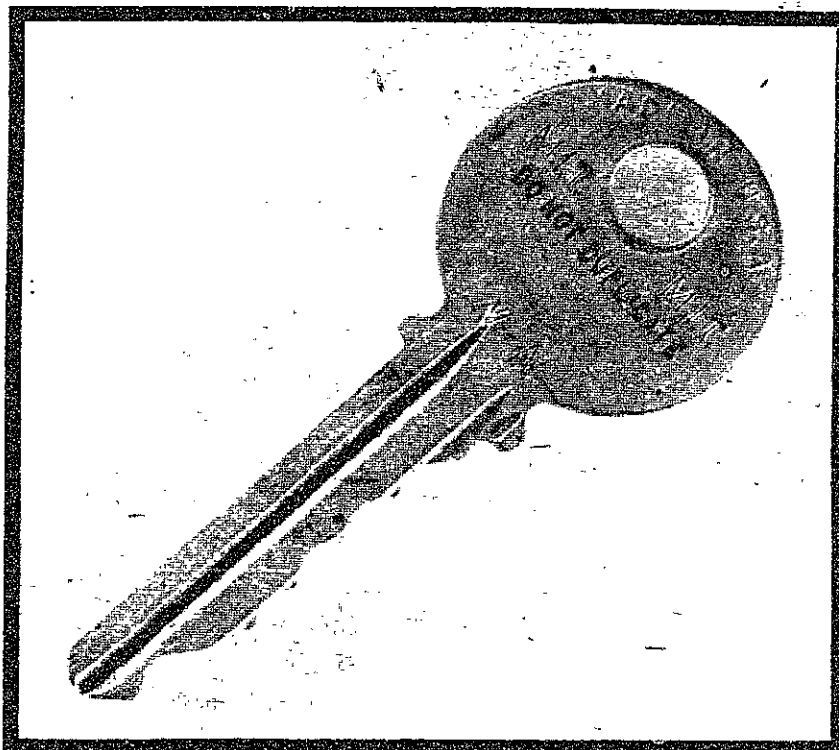
According to Assistant Director of Housing Joseph F. Lynch, "the incidence of key loss over the years can no longer be ignored. The number of keys which we must replace is no longer negligible and hasn't been negligible for years." Lynch said that the increased deposit was intended to "make students guard their keys more jealously."

Although the campus-wide increase is new this year, Lynch noted that some dorm governments had been charging students more than \$1 for a second key in the past. In some cases \$5 is "far less than the students levied against themselves," he said.

Lynch attributed the increased deposit to "increased concern felt by all parties" about dorm security, including the Housing Service, the Dean for Student Affairs, and residents themselves. While the in-

creased deposit is intended to "limit the number of keys in circulation," Lynch said that Housing recognizes that the increase is "no solution" to

prohibiting their duplication, Lynch said that Housing has been receiving (and destroying) "keys duplicated not by us. I don't know how to combat



either the specific problem of extra keys or the more general one of dorm security.

For example, despite an engraved warning on most keys

that," he added.

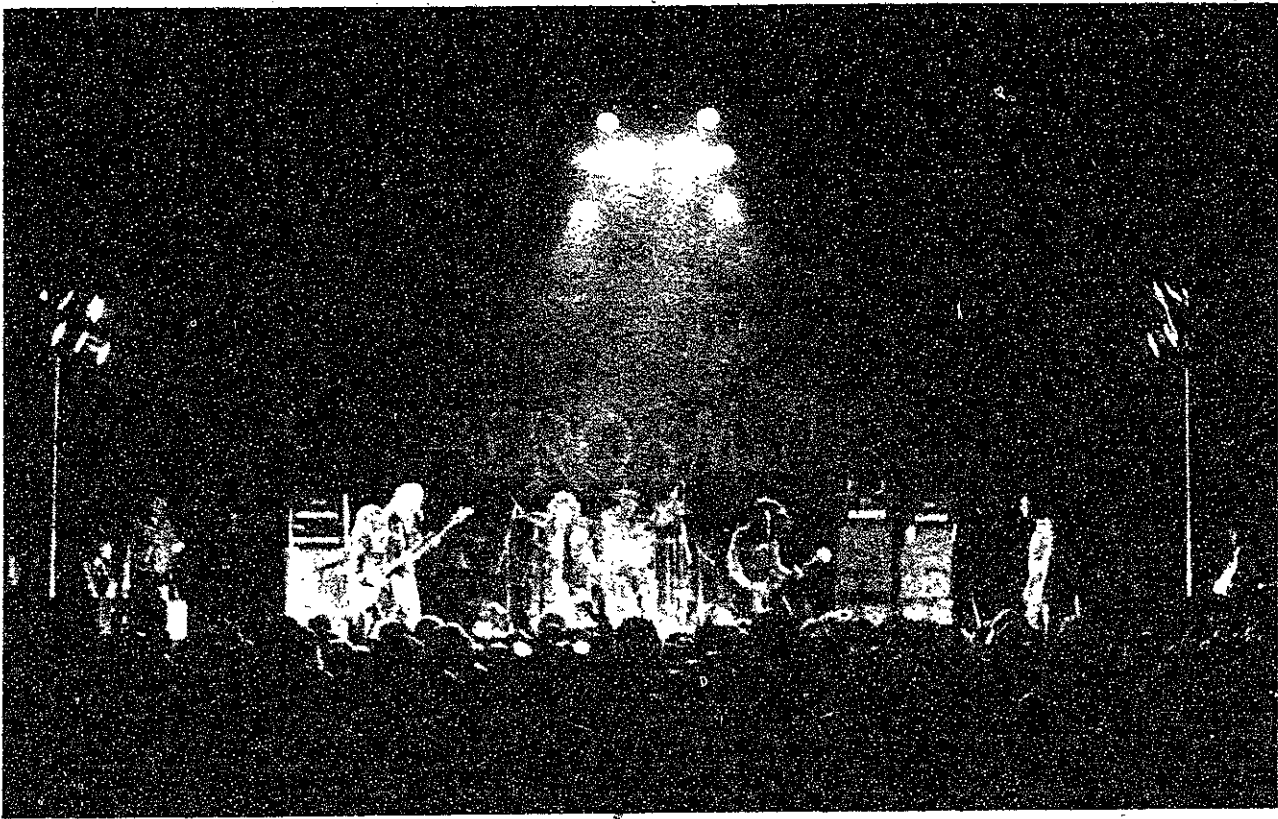
In addition to copies of ordinary keys, duplication of master keys has been a problem in the past. In the fall of 1972, enough

unauthorized master keys were in circulation to induce the then new Dean for Student Affairs Carola B. Eisenberg to declare an amnesty period for those with master keys to turn them in.

Possession of an unauthorized master key is now "a serious offence" according to the 1974 *HoToGAMIT*. Lynch stressed the role of "ingenuity" in manufacturing master keys, noting that "this is a school of engineers."

Lynch said that, in his opinion, he would "rather have the student give his key to a friend than tell the desk to give it the friend. We don't know the friend. This is not a service that management should provide. If the student wants ten to twelve people to have access to his room that is his business." He explained that the chances of losing a key increased with the number of people who have access to it.

Despite the concern with dorm security, Lynch downplayed the amount of time Housing has spent on the problem, saying "I'm much more concerned with the student's well-being than I am with his key."



Rich Reith

In the past, MIT concerts have been known for their failure to attract MIT students. The Buck concert, unlike the Aerosmith concert of two years ago, proved to be no exception.

Kresge concert use questioned

(Continued from page 1)

The concert was advertised on campus, Moyer said, by assigning posters to be put in dormitories and fraternities. "We decided not to put posters in the main buildings — if you don't see them where you live, you're not likely to see them anywhere else," Moyer said. After the posters drew no response, SCC decided to give away the 200 tickets allocated for MIT, and Curtis agreed to absorb the loss, Moyer said.

Curtis also contacted other colleges to arrange to sell tickets, and had agreed to limit his publicity to other campuses, Moyer said. But "some of his people went overboard," Moyer explained, and publicity was distributed in off-campus locations such as Central Square.

"We felt that students would benefit from having the group here now, and if there was interest we'd have them return," Moyer said. "We usually do things so students can benefit."

Moyer said he saw no problems with the unusual arrangements for the concert, stating that use of Kresge had been cleared by the Dean for Student Affairs Office and the Committee on Facilities Use. But Dr. Louis Menand, Special Assistant to the Provost and chairman of the Facilities Use Committee, told *The Tech* he was not sure whether the committee had approved the use of Kresge.

An endorsement?

"This is not the kind of thing we normally would do," Menand said, adding he was "surprised" that the concert had already taken place. The main objection to the arrangement, he said, was that MIT's name might be used to promote the group as a result of using MIT facilities.

"We don't have much control over the publicity after the event, and we don't know if MIT's name will be used as an endorsement of this group," Menand explained.

Menand said that he could recall only one similar case in the past. About two years ago, he said, a concert was held in Kresge under a similar "showcase" arrangement, and tickets were sent to recording executives and radio stations. "At-

though students were admitted to the show, the main audience clearly was the commercial representatives," Menand said. MIT "got backed into agreeing" to let that group use

Kresge, Menand said, explaining that the student group sponsoring the concert had "made commitments which we had to back up by allowing the show to be held."

Recycled Clothing Compassionately Priced

Jeans and white pants	4.50	Mexican Wedding shirts	7.50
Khaki and green army pants	3.50	Corburov pants	4.00

GREAT EASTERN Trading Co.

49 RIVER ST. CENTRAL SQ. CAMBRIDGE

Get Metal Frames at Tech Coop Optical

Photograph and Photosun to your prescription!

CONVENIENTLY LOCATED

MIT STUDENT CENTER — Lower Level

84 Massachusetts Ave., Cambridge

491-4230, Ext. 50; 491-1938

Direct call from MIT — dial 19750

Hours: M-F 9:15-5:00, closed 2-3 (lunch)

the Coop

Patronage Refund



ARMY ROTC at MIT

There are 52 students presently attending MIT with full Army ROTC Scholarships

Additional scholarships are available to qualified undergraduates who aspire to positions of leadership and responsibility in the Army

If you are interested, contact Major Jack Nunn at 20E-126, or call 3-4471

classified advertising

Hi-Fi components for sale; 25-50% off on most brands. All components in factory sealed cartons with cards. Full warranty; one day delivery, 30 day exchange on defective units. Call Bob, 253-4242 (keep trying).

gershman's PIZZA EXPRESS

welcomes you back

Buy any two pizzas and receive a medium cheese pizza absolutely FREE... FREE... FREE!!!

CALL GERSHMAN'S PIZZA EXPRESS AT

876-2882

With this coupon and the purchase of any two pizzas, you are entitled to a medium cheese pizza

FREE

with this coupon only

you must mention this coupon when phoning for your order. Expires September 28, 1975 at midnight

The insurance helpline: 876-0876.

What's "No-fault"? How much is apartment insurance? We'll give you the answers to all your insurance questions without giving you a sales pitch. Just call Dick Ramsey any weekday.

W. T. Phelan & Co.

Insurance Agency Inc. Since 1898

11 Dunster St., Harvard Square (next to the Holyoke Center). 876-0876. Representing Aetna, Travelers, Hartford.

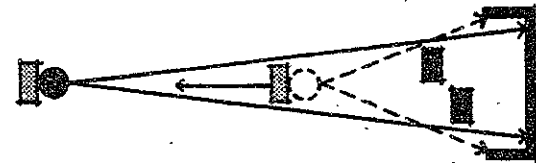
Budweiser

PRESENTS HOW TO WIN AT

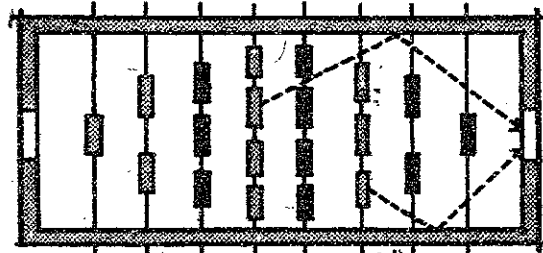
fussball



1 For a very fast and deadly shooting method, set up the ball with the shooter in backswing position. Then, by positioning the ball along the foot of the shooter as shown, you can fire in any direction with only one wrist movement.



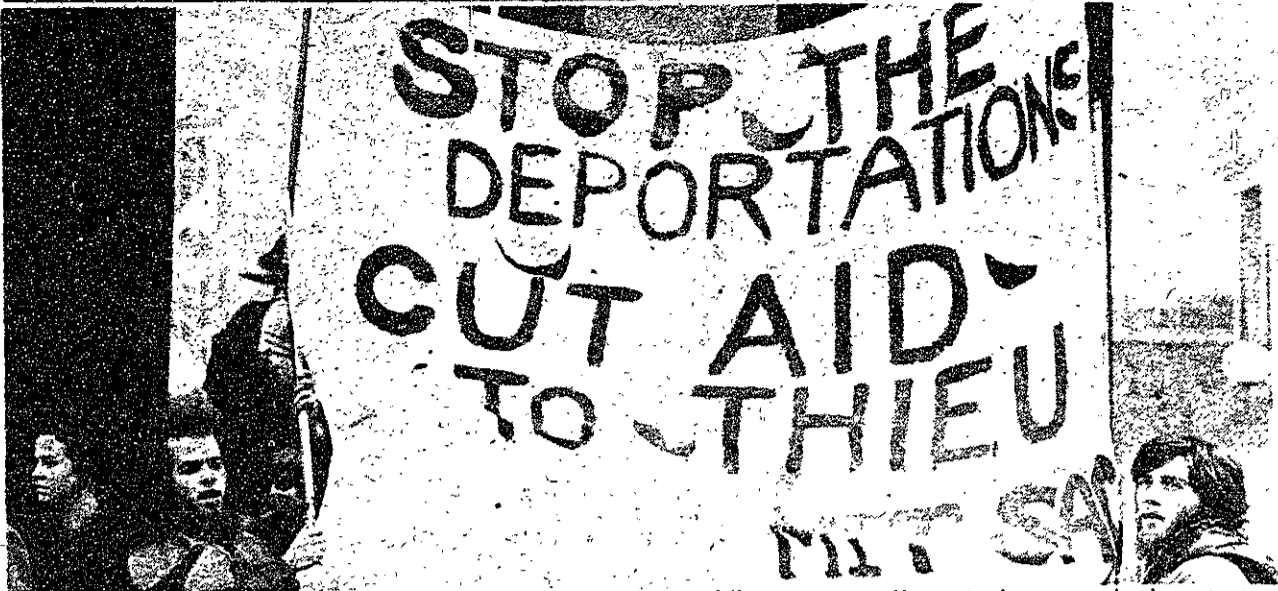
2 Pass back occasionally and shoot quickly from the middle line. This surprises your opponent(s) and makes more of the goal visible.



3 Practice bank shots from the middle and halfback positions using the shooting method described in #1. This is an unbelievably slick shot.

AND THEN ... PRACTICE UP WHERE YOU SEE THIS SIGN.





Less than a year ago, US government attempts to deport Vietnamese college students sparked protest at MIT and other schools.

US shifts on Viet students

The US government has gone from trying to deport college students from South Vietnam, Cambodia and Laos to supporting them and sponsoring their educations in less than a year.

Students who were out of favor with the government a few months ago are now being given special help with government loans and financial aid, extra assistance with permits and visas, and federal help in obtaining privileges such as in-state tuition rates available at many colleges.

The students who were in danger of being deported last year include many Vietnamese students who opposed the war then raging in their country. The US Immigration and Naturalization Service brought charges against many such students, seeking to have their student visas revoked and have them deported.

The end of the war in South Vietnam and the coming of many Vietnamese refugees to this country has changed the government's views about Indochinese students—even the ones who were to be deported.

A summary of federal guidelines prepared by the National Association for Foreign Student Affairs stressed the resources available to Vietnamese, Cambodian, and Laotian students, advising college officials to make use of resources made available by the government.

But not all Indochinese students want to be aided. Ngyuen Hu An, an MIT graduate student in Electrical Engineering who was one of the students the US sought to deport, has told friends that he intends to return to Vietnam after he completes his degree. An stated last year that he wanted to go back to his country "when the Paris Accords (ending US involvement in Vietnam) are fully implemented."

The US has recognized the desire of some students to return to their countries, and has made

arrangements to help them, too. A short paragraph in the guidelines deals with repatriation and re-entry permits, to be obtained through the United Nations Commission for Refugees and the Red Cross.

Most Vietnamese students at MIT, however, are more interested in finding out if their families got out of the country than in finding out how to get back in. According to Foreign

Student Advisor Eugene Chamberlain, several students have not located their families yet, and do not know whether they got out with other refugees last spring.

"There haven't been any outstanding problems that we (the Foreign Student Office) have had to deal with," Chamberlain said, "but we are helping our Indochinese students who are still looking for their families."

Mark James



Atomic Ltd. Inc.
Welding and Fabrication

Within walking distance of MIT

All Metals including Exotic Metals
Vacuum Chambers and Systems
Prototypes and General Fabrication
Machine Shop Facilities

Fabricators of "Rector".

Many MIT Departments and Labs have used our services for over 10 years.

27 Tudor St., Cambridge, MA 876-8530

R^x KENDALL DRUG INC

Complete line of Drug and Drug sundries

238 Main Street, Cambridge
(Near Kendall Square Post Office)

Featuring Hallmark Cards

Why do more doctors
than ever before
recommend Myadec?

reg. price our price
\$7.89 \$5.99
for 100,
plus 30 free



Myadec is a high-potency vitamin formula with minerals. In fact, Myadec contains 9 important vitamins and 6 minerals—an ideal formulation for active people on the go. That's why physicians and pharmacists recommend Myadec more than ever before. If you want a high-potency vitamin formula with minerals—recommended by many doctors and pharmacists—stop in today and buy some Myadec capsules or easy-to-take tablets.

Have your next prescription priced by our pharmacists

492-7790

"Your health is our main concern"

HUGE FALL SALE

Flannel Shirts	\$1
Wooly Shirts	\$1
Sweaters	\$2
Corduroy Jackets	\$4
Suede Jackets	\$3
Divine Dresses	\$4
Scarves	\$2.25

Change with the seasons at

GREAT EASTERN Trading Co.

44 River St. Cambridge

ECONO-CAR OF CAMBRIDGE

905 MAIN ST.

(corner of Mass & Main)
(617) 492-3000

- * Economy Cars
- * 15 Seat Passenger Vans
- * Cargo Vans

Ask about our

\$3.99 mileage
businessday and overnight specials
Call 1-800-874-5000
for toll free reservations

The **NOMINATIONS COMMITTEE** will be holding hearings on Thurs., SEPT. 25, to place undergraduates on the following committees:

7:30P.M. WELLESLEY - MIT JOINT COMMITTEE

The committee monitors and coordinates the MIT - Wellesley Exchange Program to ensure that it constitutes a meaningful diversification in the learning experience of the undergraduates of both schools.

Kenneth M. Hoffman, Co-Chairperson, MIT. x3-4389

8:30P.M. EQUAL OPPORTUNITY COMMITTEE

This committee gives support, coordination, and direction to the Institute's programs for equal employment and educational opportunities.

Carl Garland, Chairman, x3-1904

LSAT

PREP COURSES CAN HELP BUT THEY VARY WIDELY IN QUALITY

- An institution devoting its attention exclusively to the LSAT.
- An experienced staff tutoring for this exam for 15 years.
- Intensive preparation for the separate parts of the test by specialists in each area.
- Live make-up classes (no tapes) and individual help at no cost.
- A constantly revised practice LSAT with a full post exam review.
- Flexible scheduling of sections to fit special problems or needs
- Tuition \$125 for the full course (seven sessions, twenty-eight hours); \$95 for the intensive weekend session.
- Free counseling on law school admissions.

CLASSES IN NEW YORK (ALL BOROS), LONG ISLAND, NEW JERSEY, BOSTON, WASHINGTON, SAN FRANCISCO, BERKELEY, AND PALO ALTO.

BEFORE DECIDING, CALL OR WRITE FOR OUR BROCHURE.

John Sexton's

LSAT PREPARATION CENTER

New York:	850 Seventh Avenue, New York, 10019	212-581-0120
New Jersey:	850 Seventh Avenue, New York, 10019	201-867-2131
Boston:	929 Massachusetts Ave., Cambridge, 02139	800-223-6510
Washington:	518 Twenty-second Street, N.W., 20006	800-223-6510
California:	1030 Post Street, San Francisco, 94109	800-223-6510

► If interested, call the listed chairmen for more information, and leave your name with the UA Secretary at x3-2696. Hearings are held in Room 400 of the Student Center.

Opinion

Letter to The Tech International Peace

To the Editor:

"There are few things more beautiful than a university," wrote John Mansfield in his tribute to the English universities and his words are especially true at MIT. He did not refer to spires and towers, to campus green and ivy walls. He admired the splendid beauty of the university, he said, because it was "a place where those who hate ignorance may strive to know, where those who perceive truth may strive to make others see."

I write to discuss a topic on which ignorance too often abounds and the truth is too rarely perceived - yet it is the most important topic in the world: international friendship and goodwill.

What kind of friendship do I refer to? A kind of friendship which will form a firm base of world peace, which will make the globe devoid of suspicion, hatefulness and misunderstanding and fill in an aura of confidence, well-being and prosperity. By prosperity I mean a prosperity of mind, material and friendship.

At MIT, a university known all over the world, we have many countries represented by small or large numbers of people. A classroom invariably represents students covering more than a dozen countries. They do get a chance to discuss lots of economic, social, technical or management problems. Still, I am sure many of them go back with incomplete understanding of each other. It is imperative that most MIT undergraduates sometimes in the future will assume positions in their respec-

tive countries in which they will be making policy decisions which will affect the international environment.

If understanding could be firmly rooted at MIT, there is no doubt many of the problems of tomorrow could be solved today in the classrooms and on the playing field of MIT.

Whatever we do today in the regard, if further efforts are made by students and faculty, MIT will have a fine feather for its crown.

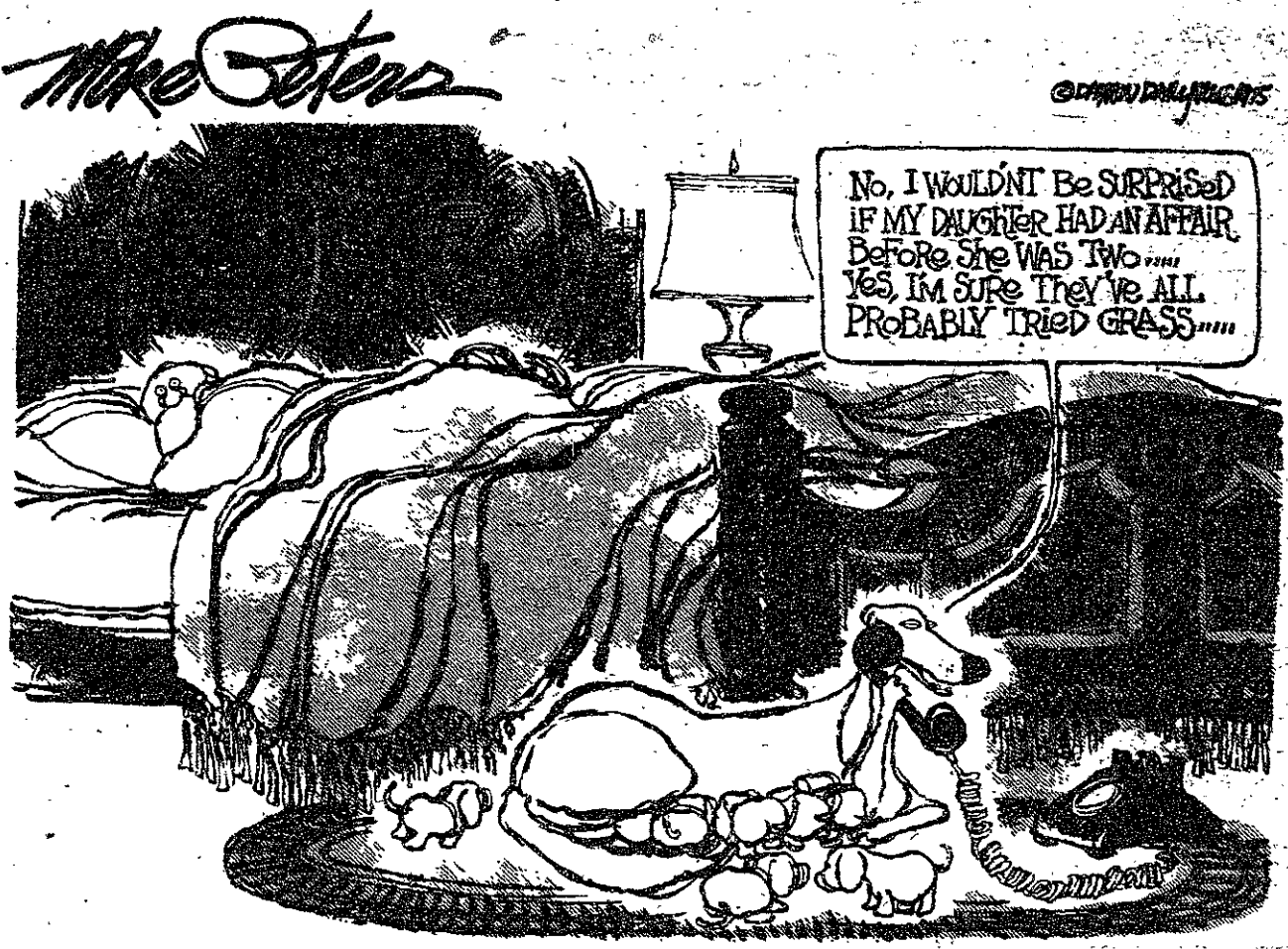
After discussion with many students I strongly feel positive measures could be taken with the help of the faculty. These would bring the international crowd together and thereby serve a very important role in the further international growth of the concept. It could reduce international misunderstanding and friction.

I would be very happy to receive suggestions and comments to initiate a body which will effect the program to bring together all the people. I am positive our strength will never be used in pursuit of aggressive ambitions - it will always be used to pursue peace.

It will never be used to promote provocations - it will always be used to promote the peaceful settlement of the disputes. So let's get shaping up.

Partha S. Ghosh G

The Tech welcomes Letters to the Editor. Typed letters are preferred. Letters must be signed; names will be withheld upon request. Send letters to The Tech, W20-483.



They'll pay if we sell them

By Michael McNamee
One operational definition of "optimist" is "someone who takes a stack of old MIT reports home for the summer and expects to read them all."

I don't usually consider myself an optimist, but I did take home such a stack of paper this summer, and I did expect to burrow through them, coming up with all kinds of wit, wisdom, and background material to be scattered throughout future pontifications from the editor's desk. I suppose that, had I succeeded in that task, I could have come up with a new operational definition of "gnurd," "turkey," and "toof." But I failed, and spent the summer pursuing more enjoyable, if less quotable, kinds of literature.

I still have the stack of reports here, however, and I've skimmed through it enough to realize the truth of the saying: MIT has spent more money producing more reports to less result than any bureaucracy of comparable size anywhere.

There is, for example, that venerable grand-daddy of all MIT reports, *Creative Renewal in Time of Crisis: The Report of the Commission on MIT Education*. This massive document, published in 1970, was to serve as the Lewis Commission Report of the 1970s, comparable in scope to the immensely-successful report which shaped MIT right after World War II. The Commission spent quite a bit of money, worked very hard, and

came up with a weighty and generally sound report that was - almost totally ignored.

The Commission recommended sweeping changes in governance. The faculty did nothing. The Commission suggested restructuring of undergraduate education, placing more emphasis on basic education and the first two years of the undergraduate experience. The faculty again did nothing, or at least little. Graduate education, research, establishing an "Institute Council" for governance - little came of any of those Commission recommendations.

The Commission spun off the Special Task Force on Education, which was to consider the specifics of implementing the Commission's educational suggestions. The Task Force had a little more luck than its parent body - Freshman Seminars and the Undergraduate Research Opportunities program are both results of its recommendations. But one of the most important of its proposals - the creation of a Dean for Academic Programs, ranking with the Deans of the six Schools in authority and overseeing UROP, freshman programs, basic undergraduate programs, and so forth - went under without even leaving a mark of its passing. More recent reports have met even worse fates - they have faded from sight completely, sometimes within as short a time as two years, to be remembered only

when the issue which they had set out to address rises in some aggravated form much later. For example, a Special Committee on Privacy worked for two years to produce a 1971 report, which was promptly forgotten. That report was resurrected only when the Institute found itself caught in a dispute with the federal government over privacy of student files.

There's no telling why MIT chooses so often to ignore the labors of its committees, special commissions, and other expensive review groups. Times change; the mood shift between the establishment of the MIT Commission and the time of its report was "astonishing" and a major factor in the report's lack of acceptance, according to Chairman Ken Hoffman. Conditions change; as Privacy Committee Chairman Arthur Smith noted, if there are no causes or incidents to enliven debate, an issue can lie dormant for some time.

It has been suggested that MIT should bundle up its reports and send them to "less advanced" institutions for their guidance. The Lewis Commission Report, for example, could go to Stevens Institute of Technology, while *Rennsalaer* might be ready to handle *Creative Renewal* or some more advanced report. Perhaps some profit could come of these works through this method; it often seems as if little comes directly from the issuing of reports.

The Tech

John J. Hanzel '76 - *Chairperson*
Michael D. McNamee '76 - *Editor-in-Chief*
Julia A. Malakie '77 - *Managing Editor*
John M. Sallay '78 - *Business Manager*

Continuous News Service Since 1881
Vol. XCV, No. 34 Sept. 23, 1975

News Department

News Editor: Margaret Brandeau '77; Associate News Editors: Stephen Blatt '77, Gerald Radack '77; Staff: Farrell Peternal '77, Lucy Everett '78, Mitchell Trachtenberg '78, Danny Naddor '78, Michael Brzustwicz '79, Eileen Mannix '79, Rich Newcome '79, Dave Simon '79, Thomas Mayer.

Production Department

Night Editors: Mark Munkacsy '78, William Pritchard '78, David Thompson '78; Production Manager: Michael Graves '76; Staff: Nancy Greenberg '77, Lynn Yamada '78, Craig Albert '79, Jean Goodwin '79, John Guppy '79, Gerald Michael '79, Richard Newcome '79, Rebecca Waring '79, Wilton Madison '79.

Photography Department

Photo Editors: Tom Klimowicz '77, David Schaller '78; Staff: Dave Green '75, Thomas Vidic '76, Mike Garcia '78, Mark James '78, Rob Mitchell '78, Richard Reihl '78.

Sports Department

Sports Editor: Glenn Brownstein '77; Staff: Dave Dobos '77, Jim Thompson '77, Darwin Fleischaker '78.

Arts Department

Arts Editors: Neal Vitale '75, Stephen Owades.

Business Department

Advertising Manager: Mark Suchon '76; Associate Ad Manager: Joel Mandelbaum '78; Assistant Business Manager: John Helfferich '78; Controller: Steve Kirsch '78; Accounts Receivable: Pat Foley '76; Accounts Payable: Steve Kaplan '78; Circulation Manager: Dave Schaller '78; Circulation Staff: Brian Rehrig '75, Tom Gilbert '78.

Contributing Editors

David M. Tenenbaum '74, Dan Gantt '75, Norman D. Sandler '75, Leonard Tower Jr.; National Correspondent: Peter Peckarsky '69.

Third Class Postage paid at Boston, MA. The Tech is published twice a week during the academic year (except during MIT vacations) and once during the first week of August. Please send all correspondence to: P.O. Box 29 - MIT Branch, Cambridge, MA 02139. Offices at Room W20-483, 84 Massachusetts Avenue, Cambridge, MA. Telephone: (617) 253-1541. Subscription rates available upon request.



Boston to hold primary election today

(Continued from page 1)
 Democrats, party affiliation should play little role in this non-partisan election. Most observers concede that although White's performance in office has been commendable on some issues, he has made mistakes. Many feel he stiff-armed city workers a little too hard for contributions, and sometimes sided with business against other community interests. To many people, the city "works" however, and if busing doesn't blow

up, many observers see a Mayor Daley-style dynasty forming in Boston. The 1970 trouncing White took from Gov. Francis Sargent '39 in the governor's race, and the torpedoed Sen. Kennedy ran into his momentary chance at the 1972 Democratic Vice-Presidency have probably put White in Boston for good. Timilty, as the *Boston Globe* said in a left-handed compliment, "has a bright future ahead of him" (the *Globe* endorsed

White). Timilty has moved from blue-collar conservative to occasional liberal during his time in the state senate. A former Boston City Councilor, an ex-marine with no college degree and a middle-class background, Timilty does not have the polish of most Boston politicians. He substitutes street sense for a lack of formal education. He could give White a harder run than the mayor expects. "Voting for him in the primary," said one MIT political activist, "would be one

way to 'send a message' to White." School Committee Council John Kerrigan is switching from School Committee to City (Please turn to page 7)

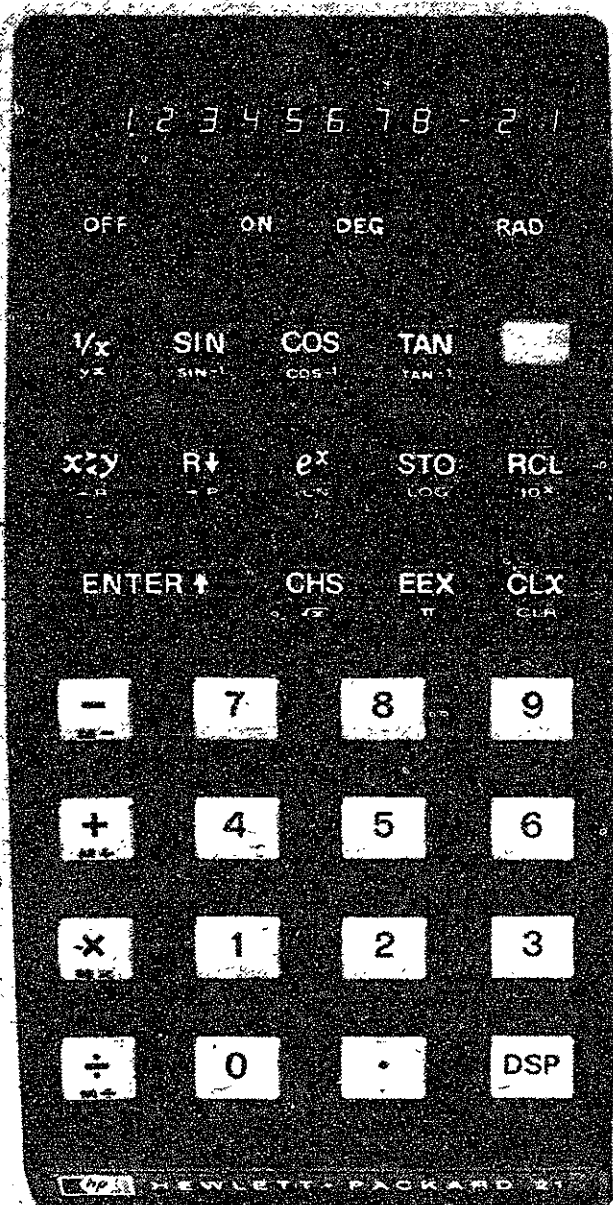
CARPET SALE
 All-new 9x12's, 6 styles, 15 colors. Unlimited supply; MIT delivery.
 Starts at \$21.95
 24 hours: 734-5400

Listen Smokers:
 You don't have to wait 20 years for cigarettes to affect you. It only takes 3 seconds.



BUY YOUR
HEWLETT *hp* PACKARD
CALCULATORS
where the professionals buy...
the COOP
 MIT STUDENT CENTER

The uncompromising ones.



The Hewlett-Packard
HP-21 Scientific
\$125.00*



The Hewlett-Packard
HP-25 Scientific Programmable
\$195.00*

The calculations you face require no less.

Today, even so-called "non-technical" courses (psych, soc, bus ad, to name 3) require a variety of technical calculations—complicated calculations that become a whole lot easier when you have a powerful pocket calculator.

Not surprisingly, there are quite a few such calculators around, but ours stand apart, and ahead. We started it all when we introduced the world's first scientific pocket calculator back in 1972, and we've shown the way ever since.

The calculators you see here are our newest, the first of our second generation. Both offer you technology you probably won't find in competitive calculators for some time to come, if ever.

Our HP-21 performs all arithmetic, log and trig calculations, including rectangular/polar conversions and common antilog evaluations.

Its display is fully formatted, so you can choose between fixed decimal and scientific notation.

Our HP-25 does all that—and much, much more. It's programmable, which means it can solve automatically the countless repetitive problems every science and engineering student faces.

With an HP-25, you enter the keystrokes necessary to solve the problem only once. Thereafter, you just enter the variables and press the Run/Stop key for an almost instant answer accurate to 10 digits.

Before you invest in a lesser machine, by all means do two things: ask your instructors about the calculations their courses require; and see for yourself how effortlessly our calculators handle them.

Both the HP-21 and HP-25 are almost certainly on display at your bookstore. If not, call us, toll-free, at 800-538-7922 (in Calif. 800-662-9862) for the name of an HP dealer near you.



Sales and service from 172 offices in 65 countries.
 Dept. 658B, 19310 Pruneridge Avenue, Cupertino, CA 95014

*Suggested retail price, excluding applicable state and local taxes—Continental U.S., Alaska & Hawaii.

The Tech



Are People (parents, spouses, children) at home always asking you about what happened at MIT lately? Why not let them find out for themselves in *The Tech*. Have a copy of each issue mailed home to keep them up to date on MIT. Just fill in the coupon below and send it in with your payment to start your subscription today.

Keep up with what's going on at MIT
Have *The Tech* mailed to your home

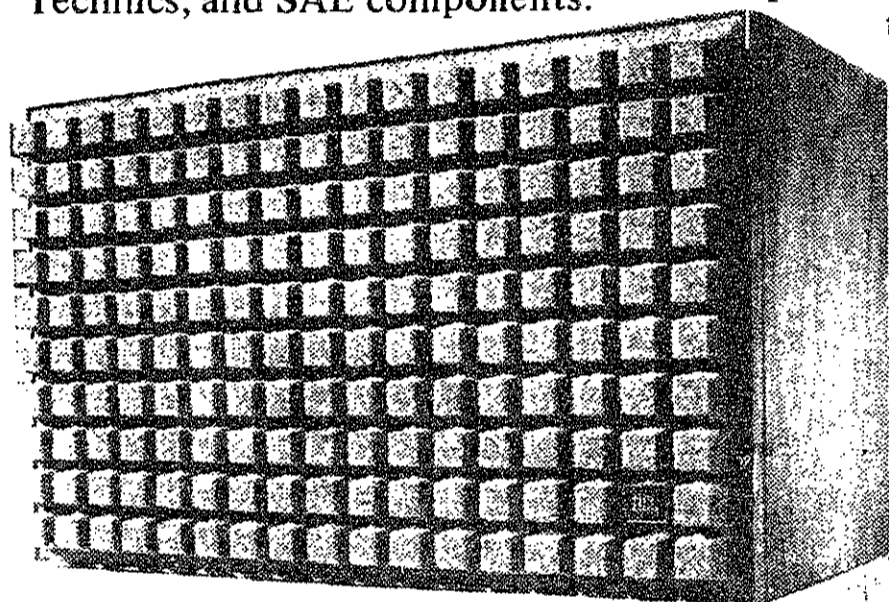
The Tech, PO Box 29-MIT Branch, Cambridge, MA 02139 23 Sept 75
US Third Class Rates: 1 Year: \$6 2 Years: \$11
Institute Mail Rates: 1 Year: \$4 2 Years: \$7 (Mail to Room W20-483)
First Class and Foreign Rates available on request.

NAME _____
ADDRESS _____
CITY _____ STATE _____ ZIP _____

This \$2125 Stereo System is the Best Investment You've Ever Heard.

Shrewd people know a good investment when they hear one.

So this week Tech Hifi invites you to visit our professional sound room and hear a music system featuring JBL, Technics, and SAE components.



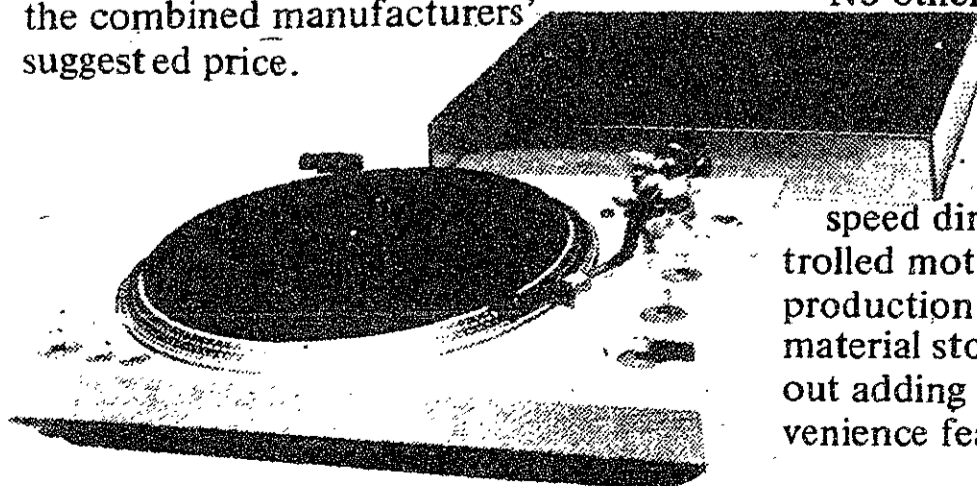
You'll discover that you've never heard music sound so majestic.

Over the years you'll also discover that in an inflationary economy, no other consumer product retains its value as well as a superlative component system like this one.

Buying a quality system at Tech Hifi is a no-risk investment. Because every system we sell, regardless of price*, is backed by our 14 Customer Protection Policies. They guarantee your satisfaction, in writing.

Here's What \$2125 Can Buy at Tech.

The purchase price of our featured system this week is paid back to you in *years* of enjoyment. And since shrewd people know a good deal when they see one, you'll appreciate the fact that the price of these components at Tech is \$100 below the combined manufacturers' suggested price.



You'll get two JBL "Studio Monitor" loudspeakers (included at the regular price of \$318 each). These fine speakers put out more ear-pleasing sound than any other bookshelf-size speakers we know. Their 12 inch long-throw woofers are combined with front-mounted ducts for toe-tingling bass response. Separate midrange drivers provide plenty of rich midrange "presence". And two level controls located beneath the acoustically-transparent sculptured foam grillcovers allow you to adjust midrange presence, and high frequency brilliance, just the way you like to hear them.

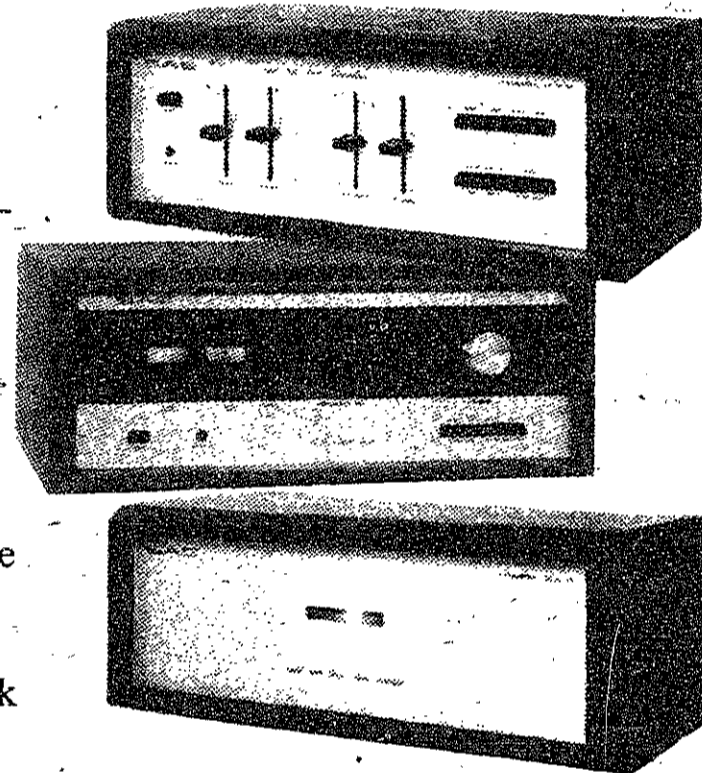
Amplification in this system is amply provided by the SAE Mark XXXIB stereo power amplifier. It delivers 50 watts minimum RMS per channel into the 8 ohm JBL loudspeakers across the entire 20 to 20,000 Hz. range of audible sounds, with no more than 0.1% total harmonic distortion.

The SAE Mark XXX stereo pre-amplifier serves as an extremely flexible control center for this system. More importantly though, it adds virtually no distortion to the audio signal passing through it (total harmonic and intermodulation distortion never exceeds 0.03%!)

With its digital readout (LED) tuning mechanism, the SAE Mark VIII stereo FM tuner provides absolutely flawless tuning accuracy. A dual meter system assures both maximum signal strength and center-of-channel tuning.

No other turntable than the Technics SL-1300 would do justice to the other components. It has a low speed direct-drive servo controlled motor that permits reproduction of the musical material stored in records without adding distortion. The convenience features of the SL-1300

include automatic set-down and return, as well as a "Memo-Repeat" function that allows a record to be repeated up to five times before shut-off.



We know of no finer cartridge to complete this system than the MicroAcoustics QDC-le. It has been proven capable of producing audio signals from a record that compare identically with the master tape of that record.

Ma Technics SAE

*Tech Hifi sells stereo systems starting at \$199.



182 MASSACHUSETTS AVE., CAMBRIDGE 864-HIFI

111 Massachusetts: Harvard Sq., MIT, Newbury St., Comm Ave., Dedham, Framingham, Waltham, Stoneham, Amherst, Northampton, Hanover, Brockton and Worcester. Stores also in New Hampshire, Vermont, Connecticut, Rhode Island, New York, New Jersey, Michigan and Ohio.

NOTES

* Sophomores: If you have not yet returned the questionnaire on summer job experiences to Room 5-104, please do so now. If you didn't get a questionnaire, you can pick one up in 5-104 during office hours. Please — we are depending on your responses.

* Anyone with experience in MIT writing courses who would like to be a teaching assistant in 21.731, Writing and Experience, (pay in money or credit) should contact the Writing Program, Room 14E-310, x3-7894.

* New students: TCA would like to hear your opinions on HoToGAMIT and any suggestions you have for the next one. Old students are welcome too. Come to our meeting on Tuesday, Sept. 23, at 7:30pm in the TCA Office (Student Center 4th floor room 450) and let us hear your views on any aspect of HoToGAMIT.

* MITHELP is being offered during the first half of the fall term to help students improve their familiarity with algebra, trigonometry, analytic geometry, and logarithms and exponentials. Each of these four topics will be covered in two evening sessions in one week. For more details check in the FAC office, 7-103, x3-6771, from 9am to 5pm or room 4-155, Monday to Thursday, 7pm to 8pm.

* "The American Dream" by Edward Albee and one other one-act play to be announced will be presented by the MIT Drama Shop on Sept. 26 and 27 at 7:30pm in Kresge Little Theatre. Admission is free.

* Dr. Frederick Erickson of the Harvard School of Education, will speak (with film and video illustrations) on "Uses of Film and Videotape in Studying Cultural Style in Nonverbal Communication" for Dr. Stephanie Krebs course Nonverbal Communication (21.116 in Room 9-351, Wednesday, Sept. 24, 4-5:30pm. Interested outsiders are welcome.

* Dr. Allen Graubard, editor of *Working Papers for a New Society* and author of *Free the Children: Radical Reform in the Free School Movement*, currently at work on a study of patterns of educational reform in the US and Europe, will speak Today, 7:30pm in the Student Center's West Lounge on "Prospects for reform in contemporary education."

* Cambridge parents are seeking volunteers from the MIT community who have a couple of hours each week to spare to work in either a one-to-one or group relationship with "special needs" children ranging in age from six up. Opportunities exist to become involved with programs in recreation, sports, diet control, or community experience and self-help skills. Activities can be initiated now. Call either Joe Collins at x3-1988, or Jack Barry, assistant athletic director, at x3-4497.

* Photo murals of the now destroyed "House of Mirrors" constructed by the "grass roots" artist Clarence Schmidt, and of his constructions and assemblages that have been preserved, will open the 1975-76 exhibition program in Hayden Gallery. The exhibition, sponsored by the Committee on the Visual Arts, will have a public opening from 8-10pm Friday, Sept. 26. It will remain on view through Oct. 29.

* An Eames celebration will inaugurate the Boston Architectural Center's Film Series on Friday, October 3 at 8:00pm. The film describes the work of Charles Eames, America's most creative furniture designer. Films in this Friday-night series will include Jacques Tati's "Playtime," Fritz Lang's "Metropolis," and documentaries on specific works and architects. The other eight programs in the series will be shown at 6:00pm. Admission is \$2.00; student's admission is \$1.00. For more information, contact the Boston Architectural Center (536-3170). The BAC is located at 320 Newbury Street at the corner of Hereford, one block east of Massachusetts Avenue and the Auditorium MBTA stop.

* The Women's Forum will present the CAES produced film, "Women's Work: Engineering" at its Monday, Oct. 6 meeting. The film will be shown at 12:10 in the Kresge Little Theatre. Niti Salloway and Chris Dall, co-producers of the film and several other members of the MIT women's community who were responsible for the production will be present for a discussion following the showing.

* MITV staff meeting and planning for next show, 7pm, Wednesday in the Experimental Studio, 3rd floor of Bidg 9.

Boston voters consider mayor, 2 other races

(Continued from page 5)
Council, or trying to. He is the only non-returning incumbent. City Councilors running again are Gerald O'Leary, Lawrence DiCara, Louise Day Hicks (nationally known anti-busing activist, former mayoral candidate, and former U.S. Representative), and Frederick Langone. Among notable aspirants are former TV reporter Jack Cole, anti-busing State Rep. Ray Flynn, and Frank Curley, the only son of famed ex-mayor Francis Curley.

Busing School Committee members seeking yet another term are John McDonough, Paul Tierney, Paul Ellison and Kathleen Sullivan. Notable among School Committee hopefuls is anti-busing leader Elvira "Pixie" Palladino, who might at least be applauded for her ingenuity. Palladino side-stepped a state election law requiring the reporting of all contributions of \$15 or more by selling almost 500 campaign support tickets at \$14.95 apiece.

Come join us at the Middle East Restaurant. No other oriental food place can boast our reasonable prices. Patronized by students from all over the U.S. and foreign countries. Luncheon special from 11 to 3. See you there!

Middle East Restaurant
Open 7 days
11:00 AM to 12 midnight
4 Brookline St. Cambridge
(Right off Mass. Ave.)

ROYAL MANDARIN 味 嶺
546 MASS. AVE., CENTRAL SQ.
CAMBRIDGE 547-2299

★ AUTHENTIC SZECHUAN, ROYAL PEKING CUISINE
★ WELL-KNOWN CHEF CHU TO SERVE YOU
★ BANQUET AND TAKE-OUT
open 11:30am-11:00pm

FATH'S NOODLE HOUSE

Serving the Best Popular Noodles Dishes:
Singapore Curry Noodle
Meat or Shrimp with Chinese Vegetable Topping
Pan Fried Egg Noodles
Daily-made Soft Rice Noodles

Priced at about \$2.00
11 Hudson St. Chinatown
542-6424

Headquarters

- BOOTS
- PARKAS
- PEACOATS

CENTRAL WAR SURPLUS

433 MASS. AVE.
Central Square
Cambridge

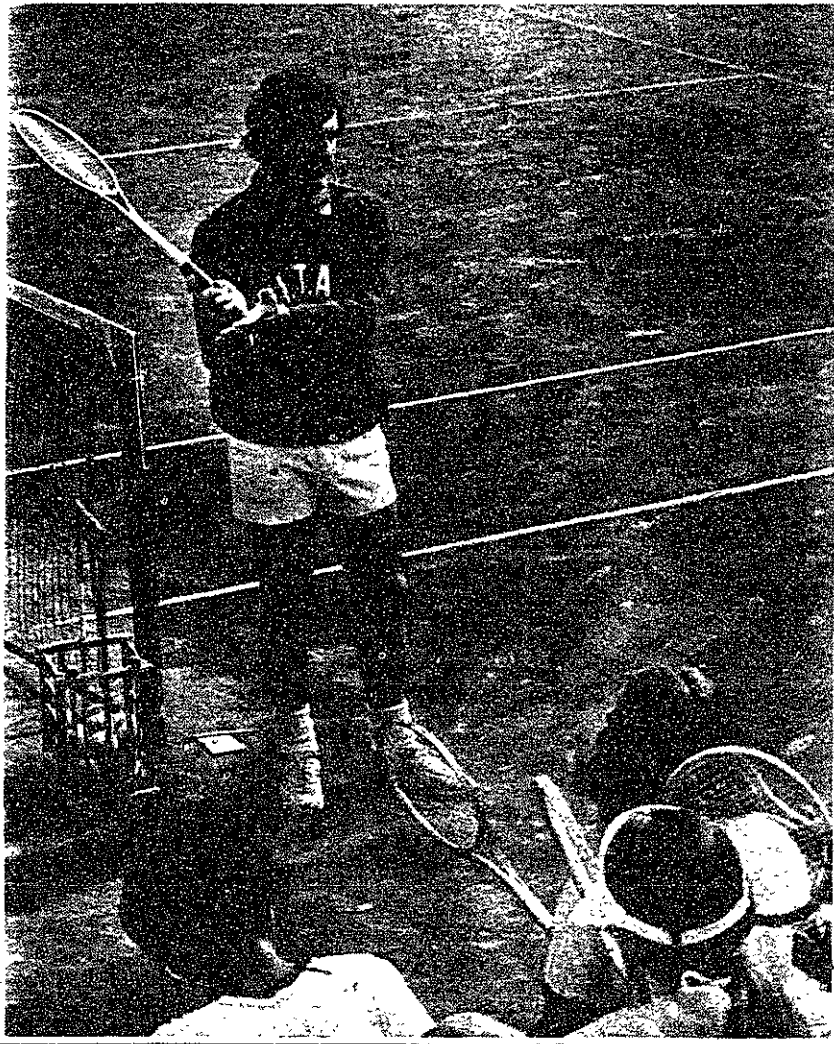
The Program of the Year isn't on TV. It's in the Air Force ROTC.

Look into Air Force ROTC. And there are 4-year, 3-year, or 2-year programs to choose from. Whichever you select, you'll leave college with a commission as an Air Force officer. With opportunities for a position with responsibility... challenge... and, of course, financial rewards and security. The courses themselves prepare you for leadership positions ahead. Positions as a member of an aircrew... or as a missile launch officer... positions using mathematics... sciences... engineering. Look out for yourself. Look into the Air Force ROTC programs on campus.

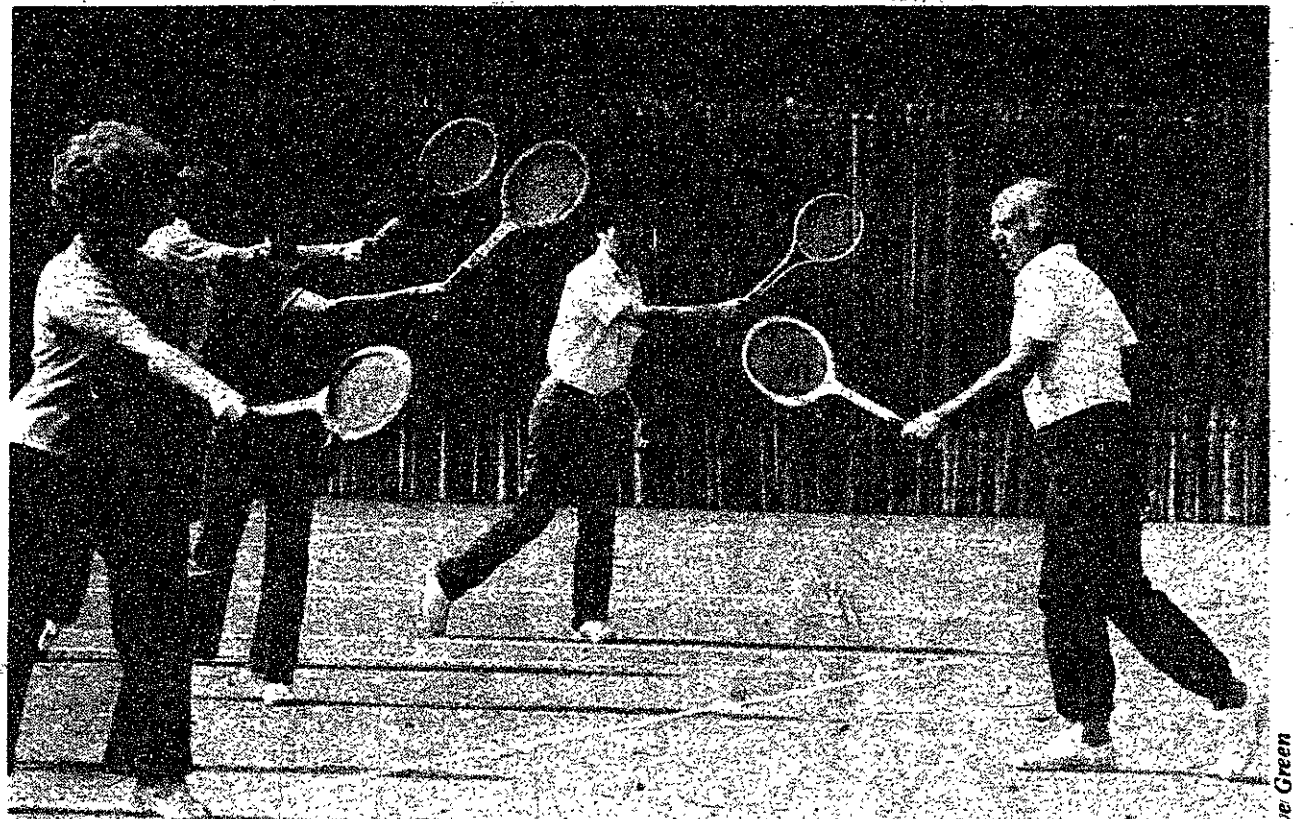
CONTACT CAPT. VRTIAK AT MIT
253-4472

Put it all together in Air Force ROTC.

Sports



Dave Green



Dave Green

Tennis, a fast-growing sport throughout the US, is the largest single Physical Education activity at MIT. Instructors Manuel Weiss (left) and Charles Batterman (above) demonstrate strokes to some of the many students enrolled in the course this quarter.

MIT sports insight

Back to the hills of Vermont

By Dave Dobos

(Dave Dobos '77 is a member of the MIT cross country team and a The Tech sportswriter covering that sport. The team travelled to Vermont a few weeks ago and this is his account of the story.)

We thought that we knew what to expect, having been the same route before. But we soon

realized that preparation was futile, both mentally and physically.

Thus came to an end our second cross country team training trip to Vermont. This year our trip had been a 48 hour stay at Talbot House. We were hoping against hope that we would be able to relax after an unusually sleepless Rush Week.

For the second year hope was all that we could do.

Talbot House is an eighty year old resort home for MIT located just a couple miles outside of Woodstock, Vermont. This village's clean, well-kept houses, narrow streets, and abbreviated downtown area seem to come right out of a tourist guide to typical New England small towns. As we proceeded to Talbot House from Woodstock and saw the hills and trees pass by, we could sense the hint of autumn in the air.

From the farmhouse, one can easily see the steep slopes of a ski resort called Suicide Six. The assignment for our first run was to scale the hill across from it, find the trail at the top leading down to the other side, and run home. Simple enough, right?

Wrong. If there was a trail descending from the top, we never found it. In fact, only seven of us made it up through the thorny weeds, assorted underbrush, and the cowpiles which, much to our dismay, none of us could avoid. However, the hard part was getting back down via a nonexistent trail. We literally slid down a steep, wooded slope with only the trees to slow our descent. Suicide Six's neighbor has been appropriately named: Suicide Seven.

The next morning brought with it the clincher, an 11.6 mile run. The terrain and distance burned just about everyone out for the remainder of the trip. The following afternoon's six and subsequent morning's 7½-mile jaunts proved to be anticlimactic. We had logged thirty miles in 48 hours.

The training camp definitely had its lighter and more enjoyable moments, though, like the humorous conversation around the table of an eight-course, homecooked dinner and an evening game of "dictionary" that produced some of the most unique and unheard of definitions imaginable. We laughed until we hurt — and did we hurt.

We'll go back to Vermont again next year, and despite our disaffection for these hills of infamy, we'll remember only the good times, and be looking forward to another illustrious encounter.

Foul Shots

By Glenn Brownstein

Are the Red Sox really going to win the American League East, or will Baltimore (as Earl Weaver says) win its last eight games and nose out Boston on the final day?

Something tells me that Baltimore's tight grip on the Eastern Division title (in six years, Detroit's half-game triumph over Boston in the 1972 strike-shortened season is the only non-Baltimore win) will be loosened this year.

The Sox did have an eight-game lead September 5, and have seen the bulge shrink to a mere 3½ games going into the Yankee series yesterday morning — but Boston hasn't played that badly. To check the figures, Boston has gone 11-8 since September 5, while the Orioles have won 15 of 18. To extrapolate these percentages to the end of the season, that gives the Sox a 96-66 record, and Baltimore a 95-67 mark (unfortunately these calculations mean almost nothing, as who could have predicted the Phillie fold in 1964, which would outdo the Red Sox effort even if Baltimore wins).

Ironically, the disposition of the Eastern Division title will be primarily up to the team picked by many to win the division — the Yankees, this season's disappointment.

All of New York's remaining games are at home against the contenders. Boston came in last night for a three-day stand, to be followed by the Birds Friday (a twi-nighter), Saturday, and Sunday.

While Baltimore's other contests are against Detroit, the team with the worst record in the majors, the Sox wind up against Cleveland, who has stopped Boston nine of 14 times this year. The schedule appears to favor the Orioles, but there is that matter of the 3½ game lead.

My pick is for Boston to clinch on Saturday, as the Sox take two of three from the Yankees, and two of three from Cleveland to be 96-65 at that point. The Orioles will sweep Detroit and lose Saturday to New York and Catfish Hunter, putting them at 93-67 and out of it.

As for the playoffs, if Boston gets in (Red Sox fans are usually very cautious in making assumptions about their team's fortunes), I'll make that prediction next week.

For those of you not familiar with Philadelphia's collapse in 1964, the Phillies led the National League by 6½ games with ten left to play. As the second-place Cardinals won nine of their final eleven games, Philly lost all ten. Strangely enough, St. Louis' two losses were to the lowly Mets, who won only 51 games all year.

The Cards clinched the pennant on the final day of the season with a 9-5 win over New York after losing the Friday and Saturday contests to the Mets (in Saturday's game, New York's Al Jackson outdueled Bob Gibson, 1-0, to keep the race alive.) The Phillies wound up in third place, two games out of first (Cincinnati, with a late surge, also passed them).

do not need the PE credit.

The classes have become so popular that the athletic department is having difficulty accommodating all the people who want to take PE.

"There has been a very steady increase in the number of people taking Phys Ed for no credit," Associate Professor of Physical Education Edward Crocker told *The Tech*, adding that "the non-credit group is becoming more and more of a problem" because of space limitations in the PE classes.

There were 2653 PE registrations for non-credit last year, or about 39 per cent of the total 6882 registrations. This represents an increase of 486 over the previous year.

Crocker noted that the number of PE activities has been gradually increasing over recent years, and now numbers 110 a year.

"We're interested in developing new areas," Crocker said, pointing out that a number of the courses in existence are the result of student requests. Rock climbing is an example of such a

course, he said.

In addition to being taught during the regular term, Crocker said, PE courses are taught during IAP. About 600 people took courses during IAP, one half of them for credit.

Hockey was taught during the last IAP but could not be taught during the regular terms because of space limitations. "We'd offer it as a regular PE class if we had the covered rink" that is planned as part of a new athletic center.

This year, two activities, ping pong and modern jazz blues were added to the list of PE activities.

Crocker stated that tennis is now the largest single activity. Dance is "growing quite rapidly," he said, possibly due to an increasing number of women students at the Institute.

Among the other popular activities are sailing, rifle and pistol, and skating. Crocker noted that rifle and pistol enrollment is limited by the size of the ranges, and skating enrollment is limited by the fact that the rink can only be used during the second quarter, IAP, and part of the third quarter.

Each undergraduate is required to take the 8 points worth of PE classes (each regular class is worth two points) plus a swimming test. Students who transfer in as sophomores only need 4 points, and those who transfer in as junior need none.

Handicapped persons are excused from the requirements, Crocker said, but he noted that many of them want to be included in activities, and some have fulfilled the normal athletic requirement.

Sporting Notices

All those interested in forming an Ultimate Frisbee team to participate in this year's championships should meet this Friday in front of Kresge between 3-5pm. If unable to attend or desiring further information, contact John Kirkland at 782-1202.

HUMANITAS: AN EVOLVING PERSPECTIVE Ideas and Images of Humanity in the West

Thursday, September 25
Lecture Hall 9-150
4:00-6:00 p.m.

The Biblical View of Humanity

Nahum N. Glatzer, University Professor
and Professor of Judaic Studies
and of Religion, Boston University
Sponsored by the Technology and Culture
Seminar at MIT