



Go Beavers! The MIT Cheerleaders held a pep rally on the Student Center steps Friday afternoon to get MIT psyched for the Homecoming Game Saturday. Unfortunately, MIT lost the game 22-0. See story on back page.

Tech photo by Ronald E. Becker

Black frosh enrollment drops

By Anu Vedantham

Only 3.8 percent of MIT's freshman class is black — the lowest black percentage in 10 years, according to statistics from the MIT Office of Admissions. Black enrollment has dropped from 65 students last year to only 40 in the Class of 1989.

"There is a very dramatic drop this year in black enrollment; it's very disturbing," said Michael C. Behnke, director of admissions. "We have had relatively decent success recruiting students in other minorities."

Blacks, Mexican-Americans, Puerto Ricans and American Indians are still extremely underrepresented, he said. MIT considers only these groups to be minorities.

"Quite frankly, it seems to me that the Admissions Office is not spending enough time recruiting blacks," said Nate Whitmal '86, member of MIT's Black Students' Union. "Not enough blacks are interested in coming to MIT... They have comparable ability to other students."

"But black applicants think, 'I'm a black person and I'm applying to this prestigious institution that has been predominantly white for over a hundred years, and so they may not be interested

in me,'" he continued. "They don't bother applying to MIT because they don't think they'll get in."

MIT — with a 25 percent minority student body — has one of the highest total minority percentages in the country. But the

large number of minority students is caused mostly by Asian-Americans, he said.

The Office of Admissions employs an associate director to focus on minority recruitment, a higher post than at most universities. (Please turn to page 17)

Students discuss divestment

By Joe Killian

Students discussed MIT's investments in companies doing business in South Africa, the Sullivan principles, and the effectiveness of divestment at a forum on apartheid and divestment held in the Baker House dining hall Thursday.

About 35 people from the MIT community discussed the issues at the first in a series of meetings sponsored by the Undergraduate Association (UA) Council.

"The council every month is having a forum on a campus issue," said UA President Bryan Moser '87. The issue of apartheid and divestment was chosen for the first forum as a "precursor to the Institute Colloquium," he said.

Several documents were handed out at the forum, including a fact sheet on South Africa, copies of two articles from *The*

Tech concerning MIT and divestment, a questionnaire on apartheid drafted by the UA Council and a recent copy of *The Student* with an anti-apartheid button.

It was impossible to find a South African student who would talk about the apartheid issue, according to Lori Avirett '87, one of the organizers of the forum. South Africans who speak against apartheid while outside of their country "can be charged with treason when they return" she said.

MIT currently has \$150 million of a total of \$800 million invested in securities linked to businesses dealing with South Africa, Moser said.

"There is a financial case that can be made" for divestment, according to one student. The International Monetary Fund and US banks have already stopped making new loans to South Africa, he said.

Some students at the forum opposed divestment. "What right do we have to interfere in other countries' internal affairs?" asked one student. "I'm not sure this is the right means for ex-

Graduates petition to reform curricula

By Burt S. Kaliski

The role of graduate students in the review of the undergraduate curriculum is now under discussion following recent recommendations by the Undergraduate Association (UA), the Graduate Student Council (GSC) and the MIT administration.

The GSC approved a motion Oct. 16 supporting the participation of at least one graduate student on each of the four *ad hoc* committees that are considering reforms to the undergraduate curriculum.

A second resolution recommended that any graduate student be allowed to serve on any Institute committee, regardless of where the student conducted her or his undergraduate studies.

Without the measure, graduate students in departments that do not have undergraduate programs or that do not accept some MIT undergraduates into their graduate programs would be ineligible to serve on some committees, according to Janine M. Nell G,

GSC president.

The Committee on the Undergraduate Program (CUP) has considered involving only those graduate students who attended MIT as undergraduates, said Robin M. Wagner G at the GSC meeting. The other committees have not sought any graduate student membership, she said.

One of the CUP's major functions is to seek educational innovation and formulate proposals for change, Wagner said. The diversity provided by students who did their undergraduate work elsewhere might further the committee's goal, she continued.

Associate Provost for Educational Policy and Programs Samuel J. Keyser said he favors graduate student participation on the committees.

The counsel of graduate students who are MIT alumni would be "very valuable," he said, and students from other institutions "can also bring a perspective."

He stressed that the important issue is not representation, but "making sure that graduate student views are included." How these views would be included, he said, would be determined by the chairmen of the four committees. Keyser sits on the CUP, but not on any of the other four committees.

A graduate student who just completed an undergraduate edu-

(Please turn to page 19)



Members of the MIT and Simmons College Christian Fellowship Clubs display their carved pumpkins. The groups gathered Saturday in the Great Court to prepare for Halloween.

Tech photo by Steven H. Wheatman

David J. Rose

Professor David J. Rose Ph D '50 of the Department of Nuclear Engineering died Thursday, Oct. 24, at Mount Auburn Hospital. Rose had been a member of the MIT faculty since 1958.

Rose was the 1979-80 recipient of the James R. Killian Jr. Faculty Achievement Award. The citation accompanying the award read in part: "Rose's professional life has constituted three distinguished careers; that of scientist and engineer, that of the technology/policy analyst, and that of the bridge builder between the scientific and theological communities. He has authored over 150 articles ranging from high technology to high theology."

Rose worked for several years at Bell Laboratories, studying gaseous electronics and electron and plasma physics. After joining the MIT faculty, he played a leading role in organizing the Institute's thermonuclear fusion program.

Rose continued research in fusion at MIT until 1969 when he became founder and first director of the Office of Long Range Planning at Oak Ridge National Laboratory. During the two years at Oak Ridge he established the program from which originated the laboratory's research in energy conservation and the environmental sciences.

Upon his return to MIT, he studied nuclear waste disposal, acid rain, and the relationships between global energy options and the climate.

He became a member of the World Council of Churches' Working Party on the theological and ethical issues underlying the search for a just, participatory and sustainable society.

Rose retired from MIT in December 1984, and moved to Honolulu.

A funeral service will be held at 11 am Thursday in the Cathedral Church of St. Paul, Boston. A memorial service will be held 3:30 pm Friday, Nov. 8, in the MIT Chapel.

Ionson defends SDI program

By Steve Pao

First in a series on the Oct. 21 Strategic Defense Initiative forum.

Dr. James Ionson, director of science and technology for the Strategic Defense Initiative (SDI)

Office, predicted last Monday that there will be an 85 percent chance SDI systems can stop all but one Soviet missile from reaching the United States.

Ionson spoke at a forum sponsored by the MIT Technology and Culture Seminar, the MIT Disarmament Study Group and the Boston chapter of Computer Professionals for Social Responsibility.

A panel of respondents from the MIT community also appeared: Professor Vera Kistiakowsky of the Department of Physics; Professor Shaoul Ezekiel '68 of the Departments of Aero-

(Please turn to page 18)

MIT graduate student afflicted with AIDS dies

By Amy S. Gorin

An MIT graduate student who was diagnosed earlier this year as having Acquired Immune Deficiency Syndrome (AIDS) has died, according to Associate Dean Robert M. Randolph of the Office of the Dean for Student Affairs.

Randolph was unsure if the student, who he declined to identify, died in the MIT infirmary or at home.

MIT Associate Medical Director Dr. Michael A. Kane would not reveal if the patient had died in the infirmary, but said the in-

firmary was equipped to handle such a patient.

AIDS patients create a "two-way vulnerability," Kane explained. The patients themselves are very susceptible to disease and need to be protected from infectious persons. Health care workers also need to be protected from potentially dangerous contact with the patient's blood and secretions.

The precautions which are indicated in the care of an AIDS patient, according to Kane, are the same as precautions taken (Please turn to page 2)

Erratum

The *Tech* mistakenly reported that Strategic Defense Initiative research makes up approximately five percent of Lincoln Laboratory's \$300 million annual budget. The research in fact makes up twenty-five percent of the laboratory's budget.

Vonnegut: MIT needs oath

By Alison C. Morgan

Feature

Kurt Vonnegut, celebrated author of *Jailbird*, *Slaughterhouse Five*, and most recently *Galapagos*, spoke about everything from blue-footed boobies to nuclear war to Franz Kafka's *Metamorphosis* last Tuesday in Kresge Auditorium.

He correctly assumed that most of the MIT students gathered in Kresge were either engineers or scientists. Focusing on this, he warned them to be cautious as to "whose dreams they make come true." Vonnegut said that fascists such as Adolf Hitler couldn't have carried out their horrible realities without the cooperation and assistance of "chemists, architects and engineers."

An oath, similar to the Hippocratic oath for doctors, should be administered at MIT's graduation ceremonies, suggested Vonnegut. Such an oath would facilitate an awareness of the consequences that scientific research holds for civilization, he said.

"We might acknowledge that all modern sciences have their roots, if we go back far enough, in the wish to make people well again," he said. "I commend [the Hippocratic oath's] spirit, though not its particular content, to chemists, physicists, engineers and architects." Those who do not take the oath could be considered official "guns for hire," he added.

"If you, with your sacred knowledge, . . . were to take such an oath and mean it," Vonnegut said, "it would be a lasting, eaningful step towards safety and sanity."

Vonnegut's familial ties to MIT span three generations. His father and grandfather received degrees in architecture from the Institute. His brother received a doctorate in chemistry, and his uncle flunked out.

MIT accepted Vonnegut in 1940 with the condition that he

get rid of his deficiency in mathematics as soon as possible. He said, however, that his math deficiency "couldn't be remedied in a million years."

Vonnegut also discussed his latest work, *Galapagos*, during his 75-minute monologue. The novel is set in the Galapagos Islands, which were made somewhat of a tourist attraction by Charles Darwin's interpretation of habitation there.

Vonnegut described his role as author of *Galapagos* as a kind of prophetic Darwin, predicting humanity's predicament a million years from now.

He also characterized "survival of the fittest," or "Darwinism," as "the religion of our time." He said that both the Republican and Democratic political parties are Darwinistic, with the former the more extreme of the two.

He described World Wars I and II as Darwinistic, whose sole purposes were "killing people, to improve breeding stock." A pacifist, he said he owes this attribute to a his growing up in the 1930s, when pacifism was fashionable. Arms manufacturers were collectively referred to then as "Merchants of Death," he said.

Times have since changed and "we live in a much more militaristic society," he commented. But "war has lost its zing" with

the introduction of technology, he said. "War is no longer a European puberty ritual where boys become men."

He compared the prospect of nuclear war to "Jim Jones Kool-Aid" which Americans can choose not to drink. Vonnegut encouraged his audience to take whatever action was possible to stop weaponry production. There are "no fates worse than death," he warned.

Vonnegut also explained several storylines through graphing the "good" and "ill fortunes" of the main characters of several narratives. Vonnegut plotted different plots as functions on a personalized two-dimensional axis using a blackboard near the podium.



Tech photo by Michael Klug

Kurt Vonnegut, in Kresge Tuesday.

MIT student with AIDS dies

with victims of Hepatitis B, and existed long before the AIDS outbreak.

The danger to health care workers is actually less with AIDS than with Hepatitis B, Kane added, because the AIDS virus is more fragile and therefore harder to transmit.

The Medical Department would do what was "clinically indicated" to care for an AIDS patient, Kane said. The AIDS pa-

tient is not at risk from the AIDS virus itself, but from infections and diseases which take advantage of the patient's weakened immune system. The care of an AIDS patient involves treating those diseases and infections. This is "not a new line of business," he explained.

Unless an AIDS patient needed care which the Medical Department could not provide, the patient would not be sent to an outside hospital, Kane said. A

patient with a disease or an opportunistic infection "will remain our patient" regardless of whether or not the patient was suffering from that disease or infection as the result of having AIDS.

The isolation of AIDS patients is the result of a growing unfounded fear of and discrimination against AIDS patients, Kane said. "The last thing we want to do is feed into that discrimination."

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opinion

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Columns and *editorial cartoons* are written by individuals and represent the opinion of the author, not necessarily that of the newspaper.

Letters to the Editor are welcome. They should be addressed to **The Tech**, PO Box 29, MIT Branch, Cambridge MA 02139, or by interdepartmental mail to Room W20-483. Letters should be typed and bear the authors' signatures, addresses, and phone numbers. Unsigned letters will not be accepted. **The Tech** reserves the right to edit or condense letters. We regret we cannot publish all of the letters we receive.

The Tech

Volume 105, Number 45 Tuesday, October 29, 1985

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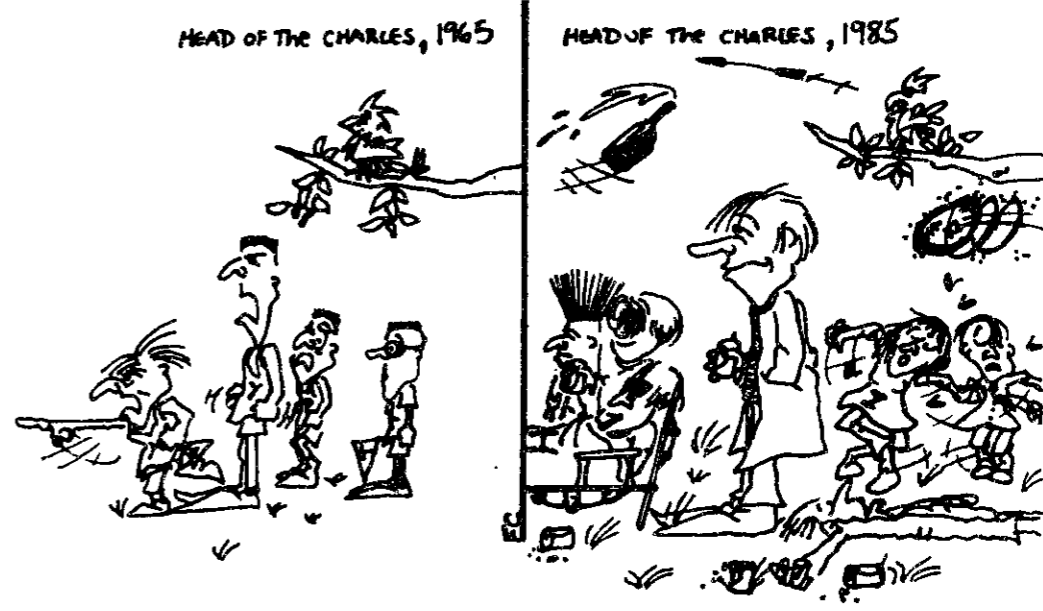
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The Tech (ISSN 0148-9807) is published Tuesdays and Fridays during the academic year (except during MIT vacations), Wednesdays during January, and monthly during the summer for \$13.00 per year. Third Class by The Tech, 84 Massachusetts Ave. Room W20-483, Cambridge, MA 02139. Third Class postage paid at Boston, MA. Non-Profit Org. Permit No. 59720. POSTMASTER: Please send all address changes to our mailing address: The Tech, PO Box 29, MIT Branch, Cambridge, MA 02139. Telephone: (617) 253-1541. Advertising, subscription, and typesetting rates available. Entire contents © 1985 The Tech. Your mileage may vary. Printed by Charles River Publishing, Inc.



Column/Scott Saleska

SDI: consider consequences...

(Editor's note: The following is half of the text of Scott Saleska's reply to the Oct. 21 address of Dr. James Ionson, director of the Innovative Science and Technology office (IST) of the Reagan administration's Strategic Defense Initiative (SDI). The concluding half will appear in Friday's The Tech.)

I don't want to trouble you all too much at this time with arguments about the technical or strategic feasibility of the Strategic Defense Initiative (SDI). It is not that they are particularly difficult or obscure — it is just that I would prefer simply to express my concerns about your program, Dr. Ionson, from the point of view of a student of science.

You speak a good deal about progress, and say that what you are trying to do with the SDI program is aid the cause of progress and the development of new technology.

And that is something few people here would argue with — after all, we are, most of us, very interested in technology, and we have a lot of fun with it. That is why most of us are here.

But, we must also concern ourselves with more than just our own fun, and our own personal intellectual challenges in technology. We also have the responsibility

to do some thinking about the consequences of our work.

So, progress, Dr. Ionson? Of course. But that alone is not enough. We must also ask, progress towards what? What kind of progress? Progress for whom? What are the likely consequences of this particular technology — not just technology in the abstract. What are the human and social costs, the potential for greater or less security?

If the societal "progress" that SDI gives us is a greater danger of nuclear annihilation, that is not the sort of progress I think we want — and it's not technology we should waste valuable resources developing — no matter how technically challenging or exciting it is.

Now, before I am accused of being a luddite, or of wanting to "hold back progress," let me simply point out that technological development can, at any given moment, proceed in a virtually infinite number of directions. But because our technical resources are not infinite, we are constantly required to make decisions. Therefore, the research that is being done — and that which is not — reflects where our societal priorities lie.

Which leads one to question: where are our priorities now?

Let me begin answering that by reading something I came across recently in the *Careers Handbook*. It's available in the Career Placement Office, for those of you who are interested. As a student of physics, I took special notice:

Two majors in which the defense sector is hard to avoid are Aeronautics & Astronautics and Physics. This will not come as a surprise to Course 16 majors because most major aerospace manufacturers are deeply involved in building military systems. Anyone choosing Aero & Astro knows this from the beginning.

If you are in Physics, on the other hand, you may have started out dreaming only of contributing your bit to the stock of human knowledge. Later, with the Ph D under your belt, you may decide to leave the academic life for industry and then you discover that many of the most exciting places to apply your background in lasers, or cryogenics, or in computer modelling are in the defense sector.

Indeed, approximately one-third of all scientists and engineers in this country are employed working on military-

(Please turn to page 11)

Guest Column/Rich Cowan

...technical, political flaws

While collecting signatures on the pledge against Star Wars research in Lobby 10, I am continuously confronted with the question: "How can you oppose Star Wars without doing the research first to find out if it's feasible?"

Pressed for time at the booth by students rushing to class, I'm inclined to give the short answer:

"The entire Star Wars (SDI) research program neglects defense against cruise missiles, which evade radar detection by following the terrain at low altitudes. Even if SDI accomplished its goal, the Soviets could deploy more threatening submarine-launched cruise missiles only a few seconds from our coast."

Though I believe this short answer is an adequate rebuttal, some students don't like it. Some of them insist that the government would not be stupid enough to spend \$2.7 billion on half a defense.

But remember who's in the White House. Back in California when Reagan was governor, nearby defense contractors such as Lawrence Livermore Laboratory, Lockheed, and Rockwell suffered the blow of Nixon's 1972 Anti-Ballistic Missile (ABM) treaty with the Soviet Union and Great Britain. Despite the treaty, these companies continued to receive hundreds of million dollars of

ballistic missile defense contracts — even during the Carter administration. Reagan never fails to outdo Carter.

Other MIT students believe we'll eventually discover a way to stop cruise missiles even though SDI doesn't try right now. This is a natural reaction for MIT students; after all, why would anyone come here unless they believed in the potential of technology?

Such problems certainly present a technical challenge. But technical solutions usually have political consequences, and therefore they are political actions.

Sometimes the political consequences are so arbitrarily or remotely related they can be ignored. For example, you might discover a promising alternative energy source that required a mineral from Zambia. This discovery might prompt the United States to increase aid to Zambia, and to help its mining industry. Military aid might allow an oppressive Zambian leader to stay in power against the wishes of his people. But this result is unlikely, compared to potential direct benefits of your new fuel.

Technological effort is rarely politically neutral. Basic research in theoretical mathematics is a notable exception. Before 1945, so was basic research in physics.

Research in other fields, such

as applied math, often has political consequences. A friend of mine trained in game theory recently worked on the Strategic Defense Initiative, until he realized that the results of his narrowly focused efforts could only be used to justify a program with which he did not agree.

In computer science, the political consequences are becoming so direct they may be embedded within the software itself as capabilities advance. Robot control systems and space shuttles are placed under software control. Projected "advances" include autonomous fighting robots, battle management, and missile targeting. As computer software advances through this spectrum of politicization, where do we draw the line? Should a computer program be permitted to make the ultimate political decision: whether to launch the missiles?

Unfortunately, Star Wars is often debated on purely technical grounds. But political arguments must be considered because even the software may have to make political decisions. For the software to be "correct," we must fully consider the Soviet response to our technological initiative.

In the near term, since the Soviets will not permit the United States to have a unilateral SDI

(Please turn to page 10)

opinion

feedback

Graduate students: get involved

To the Editor:

The Graduate Student Council recently advertised in *The Tech* for graduate students to serve on faculty standing committees and committees appointed by the president, but there was no mention of the mandates of these committees. We would like to let graduate students know what is involved and why we should be interested in Institute policy. The GSC will be interviewing interested students this Thursday, Oct. 31.

Faculty standing and residential committees are concerned with policy formation and review of all aspects of MIT from the quality of life for students to laboratory safety to the academic programs offered at MIT. As students, we can make a significant impact by offering our perspectives to the administration and ensuring that the decisions made will be in our best interests. Without student input, the administration would be making major decisions without consulting the student body.

For instance, MIT decided that graduate student housing would be a low priority item and did not include it in the current capital funds campaign. The administration perceived — without any real proof — that graduate students were attracted to MIT for the rigorous academic program only and were willing to put up with the exorbitant costs of living in Boston. Unless we let the administration know our concerns, this situation will not change.

This is but one example of issues that need to be addressed and are being addressed in standing committees. If we care about the quality of life at MIT, about how the library acquisitions system works (or doesn't), about

policy concerning our academic programs and a *myriad of other concerns* vital to graduate student life at MIT, we should all consider serving on a faculty standing committee.

The current faculty standing committees which accept graduate students are listed below together with a brief description of their mandate. Some of these committees have already had their graduate student positions filled in this year. You should check with the GSC if a particular committee interests you.

The Faculty Policy Committee (accepts one graduate student). This newly formed committee, in conjunction with the new Committee on the Undergraduate Program (described below) has inherited the duties of the now dissolved Committee on Educational Policy. The Faculty Policy Committee:

a. formulates policy on matters of concern to the faculty, for approval by the faculty; interprets and implements policy as approved by the faculty;

b. coordinates the work of the other Committees of the Faculty, establishing liaison with them, providing guidance and direction, and referring issues to particular committees or establishing *ad hoc* committees as appropriate;

c. maintains a broad overview of the Institute's academic programs, coordinating and reviewing proposals from the standing and *ad hoc* committees for presentation to faculty meeting;

d. communicates with the faculty as a whole on important matters of policy, reporting regularly at faculty meetings;

e. meets periodically with the president, academic deans, and others to enhance the interchange between the faculty and the administration on matters of con-

cern to the faculty.

f. establishes the manner in which the academic program is presented in official Institute publications, delegating to other standing committees such parts of the responsibility as deemed desirable; and

g. performs such other duties and responsibilities as may be delegated to it by the faculty;

Each of the standing committees described below is in addition to the specific duties listed, responsible for (1) formulating and reviewing educational policies and other policies which relate to its work, (2) requesting any needed clarification of such policies from the Faculty Policy Committee, (3) recommending to the Faculty Policy Committee any changes of such policies which it deems to be advisable, and (4) performing such other duties as may be delegated to it by the Faculty Policy Committee or by the chairman of the faculty.

The Committee on Graduate School Policy (accepts 2 graduate students).

The committee exercises general overview of graduate programs and of students working for advanced degrees.

The committee:

a. provides guidance with respect to graduate admissions policies and procedures; the granting of graduate scholarship and fellowship awards; and the conditions of appointment of the graduate student staff;

b. evaluates proposals for the adoption of new graduate degree programs and for the discontinuation of existing programs, and makes recommendations to the faculty concerning these programs; and

c. cooperates with the Committee on Academic Performance (Please turn to page 7)

THE MIT WRITING PROGRAM

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opinion



feedback

Writers ought to have more depth, sensitivity

To the Editor:
 What was the point of Steve Wheatman's column on meeting a Playboy Bunny who is also (incredibly?) a Mensan ["Meeting a Mensan — who is also a Playboy model," Oct. 18]? It made MIT students, who supposedly have a hard time meeting members of the opposite sex, seem like frustrated baboons in heat, titillated by *Playboy* magazine in the solitude of their rooms.
 The "reporter's" implicit astonishment that brains and beauty could be combined in an MIT student is insulting to the community. The thought of Wheatman drooling all over Valerie-the-bunny is embarrassing (if that's "getting lucky," as he put it, he really is in sad shape).
 I suggest that you help your writers to report their experiences with more sensitivity and depth. The woman Wheatman described was completely one-dimensional. In an attempt at humor, he declared that her superficial attributes were all that mattered and that anybody who liked Valerie for her mind (or personality) was a "poor deluded person." *The Tech* has some serious problems with consistency if it prints this low-level drivel beside analyses of the proposed pornography amendment to Cambridge's Human Rights Ordinance.
 Bublu Thakur '87

feedback

Humanities forum called for

To the Editor:
 When I was a freshman I met my first writing major at MIT and I noticed something odd in my attitude. I thought he had made some sort of mistake. When he told me that he actually knew someone who had come to MIT to major in writing, I was even more amazed. Even after the explanation that the writing applicant had wanted a good science background and liked MIT, I thought "what a poor sod."
 Two years later, I was talking to some first-year students in my German class. When I told them I was taking only "humanities" classes that term they were shocked. One even explained to

me that I had come to the wrong school. Another student later asked me if I was fulfilling requirements?
 The question is why do people feel that studying humanities is not a good reason to be at MIT? The typical answer from people at home, people at other colleges, MIT students, MIT faculty and some advisors (!) is that MIT is an institute of technology and people know of its scientific and engineering emphasis before they arrive here.
 What happens when a student comes to MIT thinking that she or he wants to be an engineer and then decides that she or he doesn't want this? Should the

student transfer?
 I want to point out that there are people at MIT interested in music, writing, economics, political science, linguistics, philosophy, urban studies, visual arts, etc. The attitude that those kind
 (Please turn to page 9)

The Tech

Production Staff

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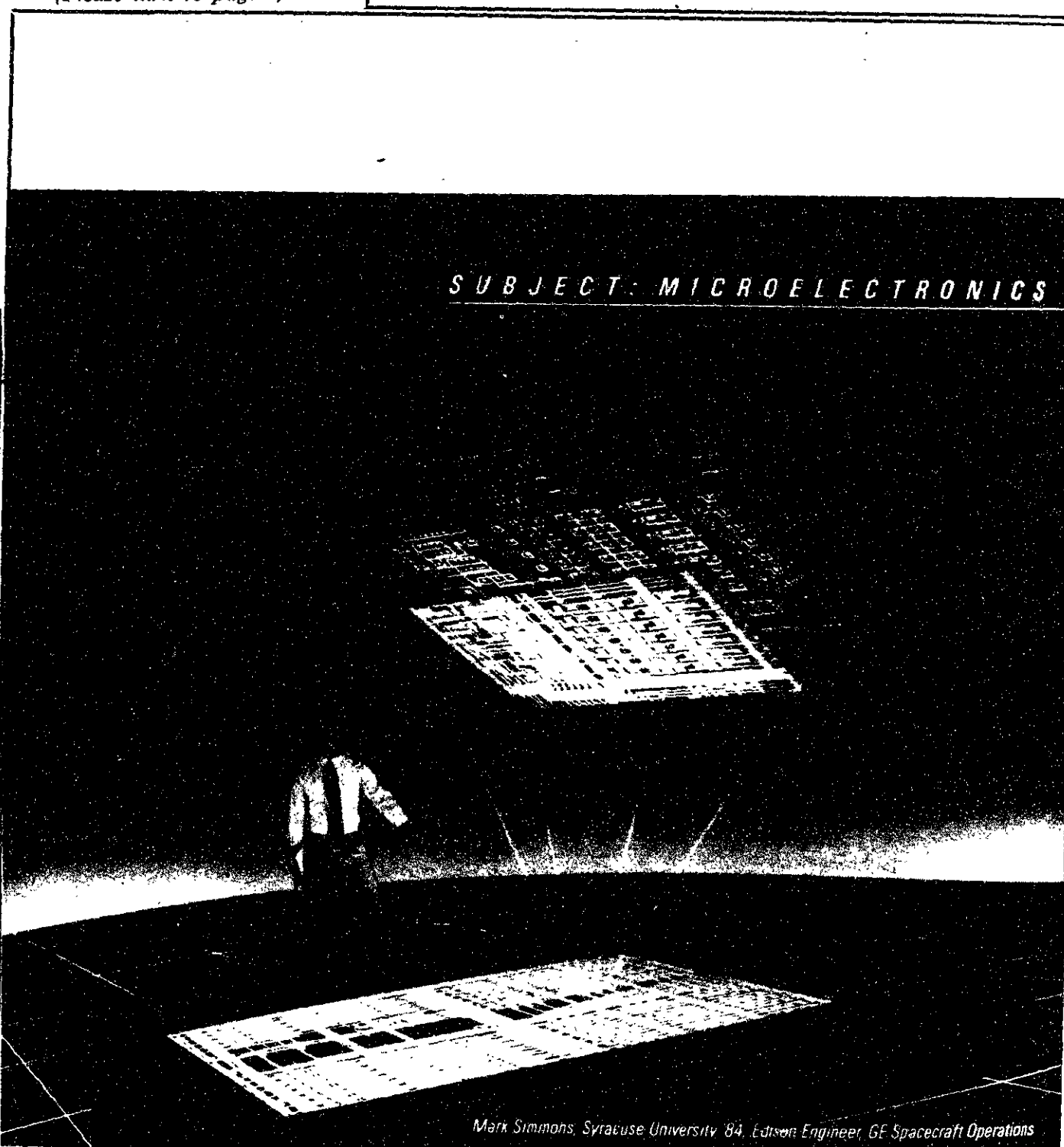
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Mark Simmons, Syracuse University '84, Edison Engineer, GE Spacecraft Operations

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opinion

feedback

It is your turn to get involved in MIT

(Continued from page 5)

in making recommendations to the faculty on such matters as calendar changes, examinations, and grading.

The committee acts with power on proposals for changes in graduate level subjects of instruction and reports all approved changes to the faculty.

The committee also acts with power upon requests from graduate students for approval of minor departures from general requirements for advanced degrees.

Finally, the committee acts with power in evaluating the academic performance of graduate students, including the issuance of formal warnings and denials of further registration in the Graduate School.

At the conclusion of the two regular terms and of the summer session, the committee makes recommendations to the Faculty for the awarding of advanced degrees.

The Committee on the Undergraduate Program (accepts 1 graduate student who attended MIT as an undergraduate student). This new committee:

a. encourages experimental innovation in undergraduate education and formulates proposals for changes and modifications in undergraduate educational policy;

b. exercises oversight responsibility for undergraduate education, including the freshman year and other interdepartmental programs, giving attention to both short-term and long-term trends and directions;

c. interprets and implements undergraduate educational policy as approved by the faculty;

d. exercises authority to approve and supervise limited educational experiments and to grant exceptions to allow any experiment to depart from specific faculty regulations and MIT administrative procedures. Descriptions of experiments and reports on their progress and outcome are circulated to the faculty. Experiments (such as Concourse) that show enduring value are incorporated in the usual ways into the faculty regulations and administrative practices; and

e. interacts with other faculty committees and with the schools, departments, and programs on important issues in undergraduate education and communicates with the MIT community as a whole about such issues.

The Committee on Student Affairs (accepts 2 graduate students).

Because successful education depends on social and effective, as well as cognitive, aspects of the student's experience, the committee is concerned with student life and the quality of the learning and living environment at MIT. The committee is concerned with the range, availability, and effectiveness of Institute-wide support services to students, and with the formal and informal relationship between the Institute and the student. The committee is expected to meet regularly with representatives of support services to students, and to undertake study and research specific issues. The committee serves as the standing faculty advisory body to the Office of the Dean for Student Affairs, offering policy consideration and advice.

The Committee on Discipline (accepts 2 graduate students).

The committee considers cases of alleged misconduct by students brought to its attention by the Dean for Student Affairs or by any member of the MIT community. An accused student is given an opportunity to appear in person to a meeting of the committee. If the findings of the committee include a recommendation that a student be required to withdraw from the Institute, the recommendation with the findings shall be reported to the president for approval or disapproval; otherwise, the committee shall act with power.

The Committee on the Library System (accepts 2 graduates).

This committee, with the advice of the Director of Libraries formulates policy for the administration of the libraries consistent with the objectives of the Institute. It serves as liaison between the libraries and their users. The committee reviews budget allocations prepared annually by the Director of Libraries.

There are also 16 presidential committees which also accept graduate students:

- The Commencement Committee (1 graduate student)
- The Community Service Fund Board (2 graduate students)
- The Dining Advisory Board (1 graduate student)
- The Equal Opportunity Committee (2 graduate students)
- The Committee on Foreign Scholarships (1 graduate student)
- The IAP Policy Committee (1 graduate student)
- The International Institutional Commitments (1 graduate student)
- The Prelaw Advisory Council (1 graduate student)
- The Medical Advisory Board (2 graduate students)
- The Radiation Protection Committee (1 graduate student)
- The Committee on Safety (1 graduate student)
- The Student Activities Development Board (1 graduate student)
- The Toxic Chemicals (1 graduate student)
- The Use of Humans as Experimental Subjects (2 graduate students)
- The Committee on the Visual Arts (2 graduate students)
- The Committee on Womens Students Interests (3 graduate students)

We won't describe the responsibilities of the presidential committees here. But we urge you to contact the GSC for their descriptions, if any of their names intrigue you.

In addition to these committees, there are also *ad hoc* committees which accept students such as the current committee established to examine the military influence on MIT. The GSC has recently asked for graduate student representatives on the four new *ad hoc* committees formed to consider major reforms in the undergraduate curriculum. These committees promise to offer exciting and challenging opportunities to explore fundamental issues in educational policies and programs. We expect that graduate students will be permitted on these committees, and hope you will stay tuned for announcements to this effect.

We intend to get involved. Now it's your turn.

Robin Wagner G
Carolyn Lee G

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opinion

Guest Column/Lukas Ruecker

Reagan played Rambo in hijacker interception

Not much more than three weeks ago, another hostage drama, the seajacking of the Italian cruise ship "Achille Lauro," had a relatively lucky ending. This alone would not be anything new, but there was a surprising conclusion. After the Palestinian seajackers left Egypt by air for a PLO trial in Tunisia, the US Air Force intercepted the Egyptian airplane and forced it to land in Sicily.

What could have been the motive for the hijacking of the Egyptian civilian airliner? The "Achille Lauro" affair was basically over. Due to the efforts of both Italy and Egypt, all but one of the hostages were released safely. The four Palestinian terrorists as well as PLO Secretary-General Mohammad Abbas were on their way to a PLO tribunal in Tunis where the four hijackers were supposed to be tried.

There is only one possible explanation: tough President Reagan, who had recently lost face in the TWA-crisis, strongly needed some action to touch up his fragile ego. Most Americans seem to simply love a leader who shows the world how "strong" and "firm" the United States is.

Moreover, there was the thirst for the blood of terrorists and the disturbing feeling of total helplessness left behind by the TWA-hijacking. An action in "Rambo"-style was just the right thing to generate a new wave of pro-Reaganism and euphoria in the United States.

If the four terrorists had ever reached US territory, they would have had to pay for every terrorist act in the last decade in the name of just vengeance. A fair trial as intended by the Reagan administration would have been a farce — just like the PLO tribunal in Tunis might have been. We should be thankful to Italian Prime Minister Bettino Craxi for having prevented another questionable outcome of America's morality and self-righteousness.

Do not misunderstand me: the hijacking of the "Achille Lauro" was a condemnable crime. But this does not give the Reagan administration a title to give lessons in firmness or to take "justice" into its own hands.

Is the jailing of four Palestinian terrorists at least some achievement in the fight against international terrorism? Definitely not. Terrorism is a disease just as the measles is. There is no sense in trying to get rid of each red spot separately; one should not even scratch them, no matter how much the itch. The right thing to do is to fight the disease at the right place, inside the body.

Terrorism and terrorists are symptoms, indications that there is something wrong somewhere. There is no sense in trying to get rid of each terrorist separately either — the only outcome will be a nasty scar on society's moral skin. To stop terrorism, we must look to its cause and straighten out what has to be straightened out — in our case the Middle East situation.

For the time being, let us forget that there are "professional" terrorists — that Palestinian terrorism against innocent American civilians might be, if not justifiable, at least an understandable answer to CIA or official US-supported terrorism against innocent Palestinian civilians; that modern mass media are centered around sensations, indirectly provoking international terrorism.

The four terrorists were cap-

tured after they had been released by Egyptian authorities as a part of the agreement that saved the lives of the passengers on the "Achille Lauro." The unavoidable and horrifying result of the interception will be an increase of violence on part of terrorists. Fruitful compromises will become rare. The world will soon have to lament even more Leon Klinghoffers, many of whom will have died unnecessarily.

The sudden outburst of American self-righteousness destroyed in one stroke all credibility in any American commitment to the rule of law, the respect for a nation's sovereignty, and the concern for allies. What remains is the barbaric "might makes right."

Egypt, because of its moderate-ness, is the best starting point for

a peaceful solution for the Middle East. Italy is a member of NATO — "a valued ally" according to White House Spokesman Larry Speakes. Both nations have been made to look like fools.

The skyjacking itself was a violation of the terms of the compromise that ended the seajacking without bloodshed. The operation violated Italian airspace, territorial rights, and sovereignty. Delta Force units and Italian military were very close to killing each other over four Palestinian terrorists.

Italy released Abbul Abbas according to its long-term Middle East foreign policy of recognition of the PLO, despite the urgent pleas from Washington to hold Abbas.

Suddenly, Italy's strongly pro-American defense minister Gio-

vanni Spadolini decided that what has been the most stable government Italy has ever had is no longer worth supporting. Craxi was forced to resign, reiterating his position that the Reagan administration had offered insufficient legal ground for detaining Abbas.

The Italian press' complaints about Italy being treated like a "banana republic" certainly seem justified.

Egypt's President Hosni Mubarak, seeking an apology from Reagan, heard only one word: "Never." Deputy Secretary John C. Whitehead was sent out instead on a fence-mending mission with a Big-Brother smile. He has been as successful as expected. This is an obvious outcome of something we call economic and political imperialism.

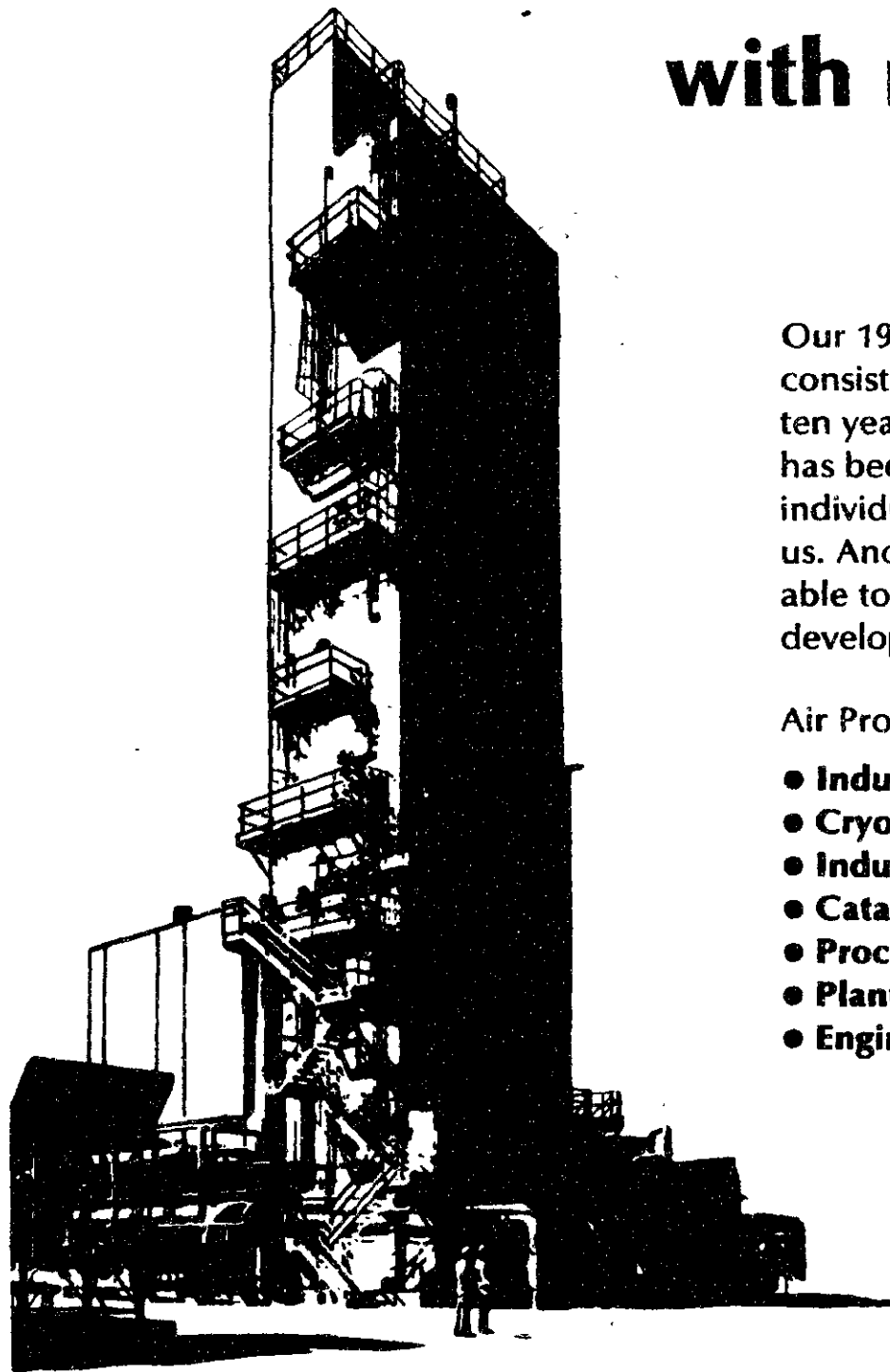
The tensions and the suspicions within NATO continue to increase. International terrorism will seek revenge, one way or another. Israel is taking its chance to deal with Jordan directly, omitting the PLO and provoking a new era of terrorism. The big loser is the Middle East.

But who wants to have peace in the Middle East? Certainly not Israel. Its recent familiar act of state terrorism was bound to throw back all peace efforts for years. Certainly not the United States. Its blind support of whatever has the "Made in Israel" label makes all commitments to a peaceful Middle East and the end of PLO terrorism look ridiculous.

Anyway, Reagan is as popular as before, and that is what counts. Right?

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AIR PRODUCTS

opinion



→ feedback

Amendment not meant to suppress sex activity

To the Editor:
I have mixed feelings about the pornography bill currently under debate, but my reaction to Adam Dershowitz's letter ["Porn measure violates rights," Oct. 18] is fairly unequivocal. He either hasn't thought very clearly about the intention of the bill or he has pretty warped ideas about sex.

The bill is not intended to suppress all sexual activity or the representation thereof. It seeks to eliminate the portrayal of sexual subordination or humiliation of women. These are not elements of a normal, healthy sexual relationship.

And while some men may not

protest being referred to as objects or animals, I think most of them would. This seems to be Dershowitz's implication when he says that sex can be described as the penetration of a woman by objects or animals.

One of the worst aspects of pornography is its portrayal of sex as an act of brutality or mindless physical gratification. This attitude seems to have been absorbed by Dershowitz. I wonder if his female friends find his comments about certain body parts as "casual" as he does.

Lisa H. Hiley
Development Office

→ feedback

Humanities needs equal role

(Continued from page 6)

of people don't belong here must change to meet this fact. Students need to feel better about and more comfortable with studying humanities at MIT. Poetry profs need to stop feeling compelled to say, "look at writing your poem the way you do a problem set."

One way to deal with this discrimination is to change the policies and curriculum at MIT. There are committees looking into such changes. Even though any changes that the *ad hoc* Committee on Humanities, Arts and Social Sciences decide upon will occur far down the road, the entire school is affected just by the fact that the issue is receiving so much attention.

A second way to promote greater enthusiasm for the "humanities" is to generate the excitement from within the student body. I don't mean we should manufacture humanities psyche, but rather collect all the individual blocks of enthusiasm and build a self-supporting structure. I propose that students and faculty members who feel their interest for the liberal arts impinged upon should gather together, meet other people who feel similarly, talk and share views and experiences. I think students, particularly at MIT, need to be told, by their peers and professors that what they are interested in is important be it literature, history, economics, anything.

I don't want to create a division or imply that science and engineering aren't important. I feel, however, that at MIT (and in the world) students get positive feedback for studying in these fields. How many people, for instance, are questioned about the practicality of an engineering degree?

So, I am calling for a Forum on the Appreciation of Humanities to meet on Wednesday, Oct. 30 in room 4-149 at 7 pm. Everyone in the MIT community, including engineering and science students, faculty members, students in HASS and first-year students, is invited to attend and informally discuss the appreciation of humanities at MIT. The only goal we have for now is for people to share experiences and realize that there is a community within MIT that is supportive of humanities. Who knows, maybe

we'll discover that Humanities doesn't need to sit behind engineering and science. My hope is that someday humanities at MIT

will sit beside engineering and science and perhaps get to drive every now and then.

Philip Koebel '87

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opinion

SDI control could be harder than arms control

(Continued from page 4)

edge, they will respond with countermeasures, decoys, and more missiles. In short, they build more weapons.

What does the United States do when our SDI system designed to knock out 10,000 warheads faces 100,000? Calling upon technology, we upgrade our Star Wars defense to Version 2.0. We build more weapons.

Eventually, the Soviets will figure out how to build their own SDI. If, then, we could negotiate a treaty insuring both SDI's would only be used defensively, we might have a successful counter to one type of nuclear threat. Unfortunately, it is impossible to imagine a SDI system that could not be easily software-upgraded to knock out the other country's SDI. SDI satellites are sitting ducks compared to missiles.

Charles Zraket SM '53, executive vice president of the Mitre Corporation, describes multiple SDIs as, "The worst crisis-instability situation. It'd be like having two gunfighters in space armed to the teeth with quick-fire capabilities."

The cause of the instability is simple. It would be unacceptable for one country's SDI to "go down," because that would leave the other country free to launch a first strike under its protective SDI umbrella.

An SDI vs. SDI attack would thus be perceived as the opening move to a first strike, and would thus require instant SDI vs. SDI retaliation. An SDI vs. SDI attack would also be required in

the event of enemy missile launch, to preserve the ability to retaliate.

Even a software upgrade could be perceived as an opening maneuver leading to a first strike.

Even worse, true SDI software would have to be programmed to react to situations where things go wrong, even if the problems are with the other country's SDI.

A human decision of how to respond to a mistake would undoubtedly consider political circumstances on the ground — even statements in Pravda! But time requirements would preclude human involvement; the software would have to decide whether to attack using incomplete information in situations for which it was not tested.

To be "safe," each country would need an "SDSDI" to protect its SDI. But then, all the arguments of the previous paragraphs would still apply, at a higher defensive level.

Boeing, Rockwell, Lockheed, and McDonnell Douglas might be content to build SDSDI's and SDSDSDI's, but the result would be decreasing stability, not increasing deterrence. Technological development unbridled by political concern would cause the complexity of retaliatory policy to surpass the capabilities of policy makers, and certainly make "SDI control" an even more difficult problem than arms control is today. Why not solve the easier problem?

(Editor's note: Rich Cowan is a member of MIT Student Pugwash.)

Attention Graduate Students!

STANDING COMMITTEES OF THE FACULTY:

- Committee on the Undergraduate Program (1)*
- *(The prerequisite for this seat is that the student must have attended MIT as an undergraduate)
- Faculty Policy Committee (1)
- Committee on the Library System (2)

COMMITTEES APPOINTED BY THE PRESIDENT:

- Commencement Committee (1)
- Community Service Fund Board (2)
- Dining Advisory Board (1)
- Equal Opportunity Committee (2)
- Committee on Foreign Scholarships (1)
- IAP Policy Committee (1)
- International Institutional Commitments (1)
- Prelaw Advisory Council (1)
- Medical Advisory Board (2)
- Radiation Protection Committee (1)
- Committee on Safety (1)
- Student Activities Development Board (1)
- Toxic Chemicals (1)
- Use of Humans as Experimental Subjects (2)
- Committee on the Visual Arts (2)
- Committee on Women Students Interests (3)

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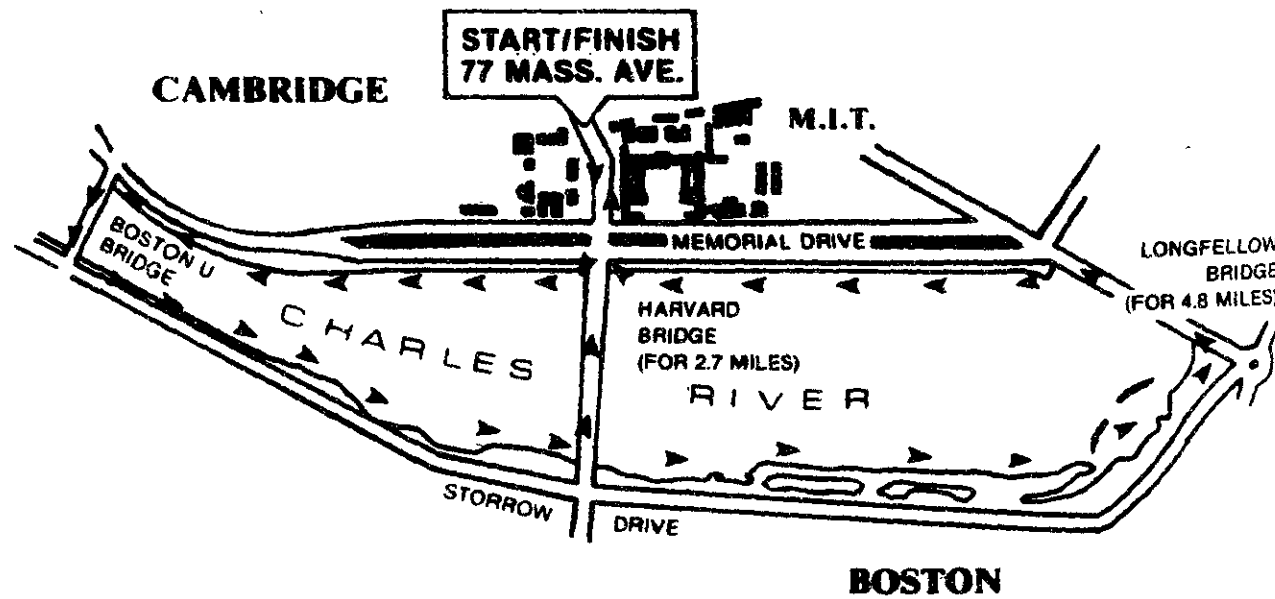
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Our Technical Recruiters would like you to join them for an afternoon jog on Monday, November 4th. We'll begin at 77 Massachusetts Avenue at 5:30 p.m., jog down Memorial Drive to the Boston U. Bridge, cross over to Storrow Drive and head down to the Longfellow Bridge, cross back over to Memorial Drive and finish up our 4.8 mile jog back at 77 Massachusetts Avenue. Some of our managers will turn back up Massachusetts Avenue at the Harvard Bridge for a 2.7 mile run.



GENERAL  ELECTRIC

opinion

Think about results of Star Wars program

(Continued from page 4)

related projects (200,000 out of 500,000, according to NSF figures). With SDI, this trend is only likely to increase — especially when one realizes that almost forty percent of all new research and development (R&D) money in this country will be for SDI.

That worries me — and it should also worry the fifty-seven percent of MIT undergraduates who, according to a recent Student Pugwash survey, expressed an aversion to working for the military industry.

You might wonder, Dr. Ineson, why that prospect worries us. After all, you seem to think that this work is very important, and imply that we should really be excited about the opportunity to do it.

Our reason for being worried is not because we are not interested in science or technological advancement, or because we are against progress. It is because we do not like the priorities that people like you are giving us.

Proponents of SDI often ask, "What harm can there be in trying?"

Well, I'll tell you what harm there is. Every time we engage in a massive spending program like this that is wasteful and dangerous, it means less money, and fewer resources for other programs that are important, or socially useful, or truly scientifically interesting.

It means, in the present context, that we, as a nation, are essentially ignoring the problem of acid rain. This at a time when fifteen percent of the forests of New England are dying, when the Black Forest of Germany is being decimated, and the deforestation of the Alps has begun. It is a problem of world-wide proportions with potentially devastating effects on the world environment and its inhabitants, yet your boss, President Reagan ignores the urgent recommendations of his own panel on acid rain and spends hardly a cent on research in that area.

Or, what about alternative sources of energy? That will be a very pressing problem some day soon, yet where is the money for that?

Federal money being spent in just these two areas — the environment, and alternative energy — is, according to one professor here who is an expert on these issues, less than one-third of what it was five years ago.

Or — if it is glossy, hi-tech challenges you want — what about an effective mass transportation system? And by that I don't mean just improvements on the T. I'm talking about something big like high-speed transcontinental trains. But no, we leave that to the Japanese, with all the implications that carries for our international competitiveness.

Or, what about space exploration? If this administration is so concerned about the advancement of basic knowledge, where are all NASA's exploration programs? Programs like the International Solar Polar Expedition, the Venus Orbiter, or the Grand Tour of the four outer planets — which we now, because of the alignment of the planets, will not have the chance to do again for decades. Comet Halley is coming this spring. Several other countries are sending probes to intercept it — but not the US. Why not the US, Dr. Ineson?

In this context, I would like to quote Dr. Ineson's remarks to Science and Government Reports

last April 2. That journal asked whether Ineson's "basic" science was different from NSF's traditional approach towards basic research. James Ineson's response:

"That is not our mode at all. This is mission-oriented basic science. The luxury to go off and sit in an ivory tower and do wonderful good science — what's in your own mind good science — that's a luxury this country may not be able to afford for awhile. But it still has to be done. That's why NSF is there, but that's not why we are here. . . . [For us] the mission is central."

And the mission, after all the oxymorons about "weapons of life," and the paradox of research that is both "mission-oriented" and "basic," is an outrageously expensive weapons program which, according to most scientists and engineers in this country, simply won't work.

That is where the Reagan administration's and Dr. Ineson's priorities are now.

Is that where we want ours at MIT to be?



feedback

Be mindful of tone in speeches

To the Editor:

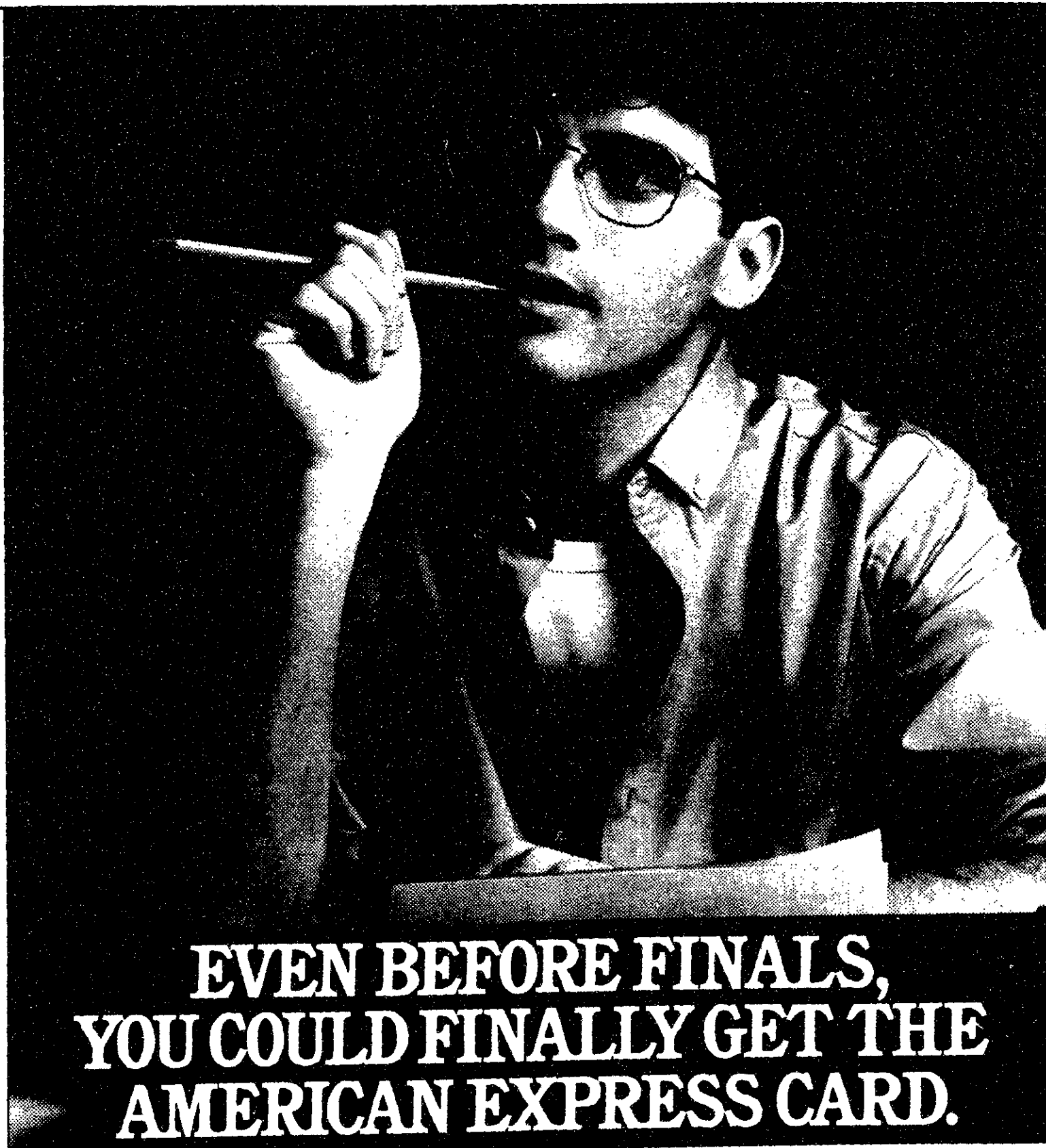
I would like to commend you for your effort in reporting on the 13th Annual MIT Black Students' Conference on Science and Technology; however, I was disappointed with your coverage of the speech given by Professor James H. Williams Jr. '67. Your edited

narration ["Williams gives own view," Oct. 22] did not capture the full intensity of Williams's speech, diminished its clarity, and failed to reflect the emotion with which it was delivered. It is unfortunate that the reporter neglected to mention the thoughtful tone that was present throughout

the speech, because tone is so important in interpreting the written word.

I hope that in the future you will be mindful of intensity, clarity, and tone as you edit and recount speeches.

Simone C. Peterson G



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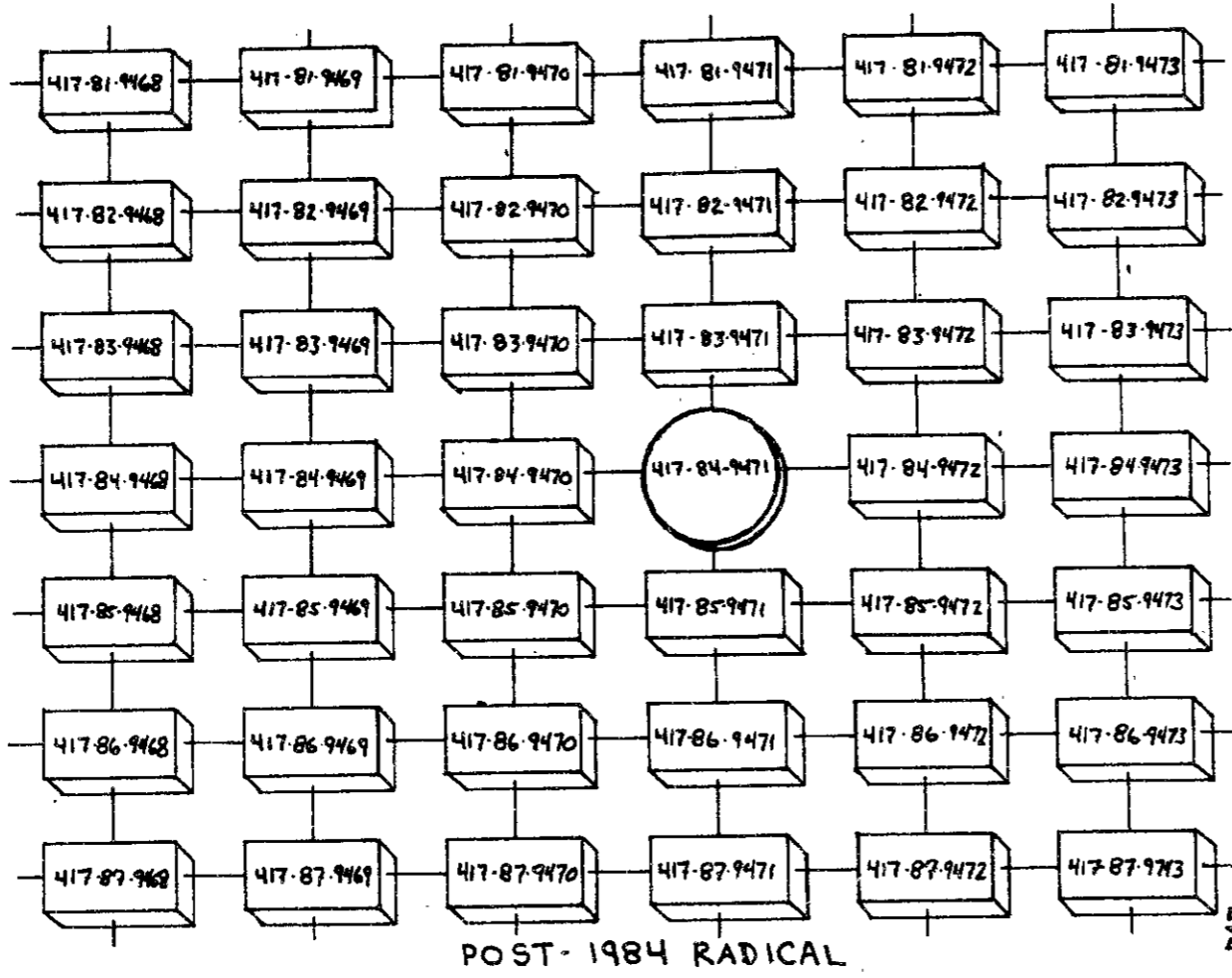
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opinion

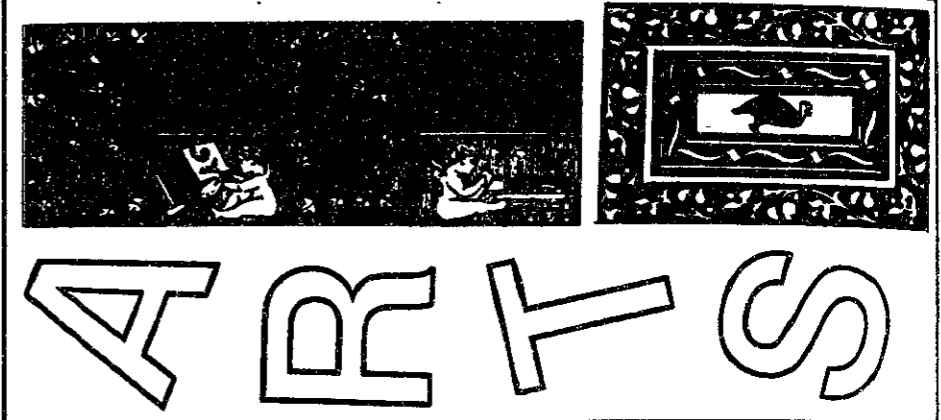


feedback

Dissenting against ideas behind protests

To the Editor:
 Rich Cowan ["Dissent is a large part of freedom," Oct. 25] claims to be responding to our letter ["Action opposes individual freedom," Oct. 18]. It is obvious to anyone who has read both letters that Cowan has not read our letter. In the first paragraph we state that people have a right to protest SDI and the CIA. Our letter is merely a letter of dissent against the ideas behind these protests. Does Cowan contend that we don't have the right to

support our government?
 Rephrasing a quote by Cowan: We should feel proud — not threatened — that Professor Shaoul Ezekiel (one of the respondents at the talk by Dr. James Ionson on Oct. 21) and others have stood up for their beliefs. We hope that other professors will follow their example, and only work on projects in which they believe.
 Perry Lee Anthony G
 Jennifer Wiseman '87



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- For more information on these programs and the major business areas available refer to the General Electric file located in your placement office.

When and Where? Tuesday, November 5th and Wednesday, November 6th at the Ashdown House.

What else? Sign-ups will commence Tuesday, October 15th

The future is working at General Electric



An equal opportunity employer

A holds meetings on apartheid, divestment

(Continued from page 1)

gh to pay taxes in South Africa," said one student. Another said it was to make the cost of doing business in South Africa less than the profit.

Investment is an expression of international solidarity" with companies in South Africa, said Aron Contreras '84, a member of the Student.

One student said, "This is one step along the path to hopefully equal rights in South Africa." Another student noted that Columbia University was "saying the same thing as Paul Gray was" not long ago, but agreed to divest within two years because of student pressure.

Several students criticized the Sullivan principles, a set of guidelines for companies doing business in South Africa.

A lot of people believe this is to provide good publicity for companies," said one student, criticizing the Sullivan principles. "As long as companies are in South Africa, they pay taxes and support the government."

Another student said that the South African government reserves the right to take over corporations' facilities in that country during times of civil unrest.

The South African government endorsed the Sullivan principles, said Omar S. Valerio '85, a member of the MIT Coalition Against Apartheid. Valerio noted that there is no neutral third party evaluation of company compliance; rather, "companies look up on themselves."

Leon Sullivan, chairman of General Motors, said "the Sullivan Principles are no longer binding," and supports "divestment as an ultimatum," according to another student.

Moser raised the issue of why attention has been focused on South Africa instead of other oppressive countries. He noted that South Africa was the only country to base its oppression "solely on the basis of race."

Contreras said that it was "hypocritical" to only consider cor-

porations' actions toward South Africa while ignoring their activities in other countries. "It's important to look at their role all over."

Moser also questioned: "How does the apartheid issue affect us at home?"

The Institute is "returning back to the middle 50s," said Contreras, citing the firing of Dean Mary Hope, the recent assignment of the Office of Minority Education to the Office of the Dean for Student Affairs and rises in the cost of education. Those cost increases make it "virtually impossible for poor kids to go to school here today."

Another student criticized proposals for tuition tax credits as "supporting private education instead of improving public education."

Associate Professor of Mathematics Frank E. Morgan '74, chairman of the Institute Colloquium Committee, discussed the upcoming program on apartheid and divestment sponsored by the committee. "Is this the way to get students and faculty together?" he asked.

One student criticized the scheduling of some activities during the late afternoon, which conflicted with their classes. Morgan replied that holding the activities at a later time would discourage faculty participation.

"It will be interesting to see how the [student/faculty mix] will change from late afternoon to evening," he said.

Contreras questioned the underlying purpose of the colloquium, citing a recent meeting in Washington, DC, in which school administrators discussed how to stop campus demonstrations.

"I don't think I could be chairman of the Institute Colloquium Committee if I was a member of the administration," Morgan replied.

The next UA Council forum will be Nov. 14, Moser said. The discussion topic has not been decided yet, but "educational policy" is a possibility, he said.

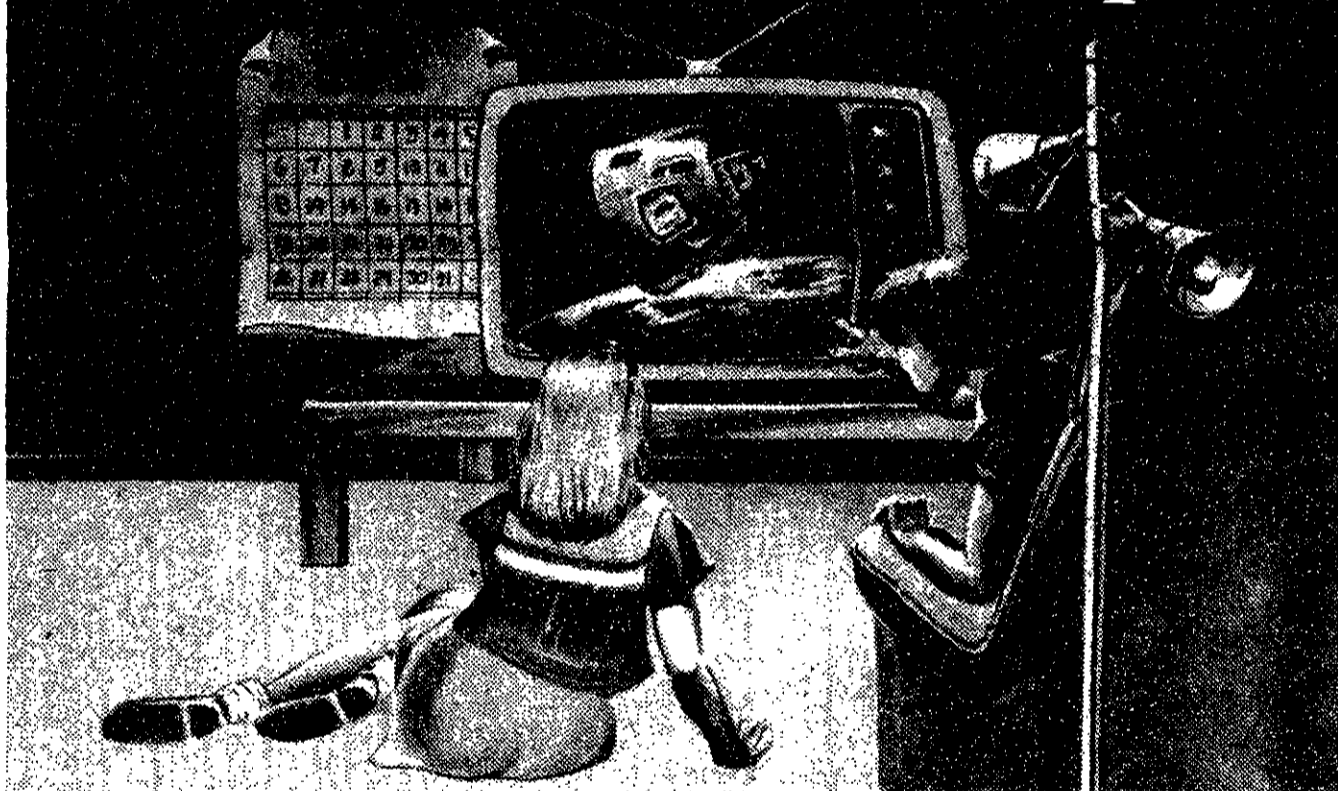


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Listings

Student activities, administrative offices, academic departments and other groups — both on and off the MIT campus — can list meetings, activities, and other announcements in *The Tech's* "Notes" section. Send items of interest (typed and double spaced) via Institute mail to "News Notes, *The Tech*, room W20-483," or via US mail to "News Notes, *The Tech*, PO Box 29, MIT Branch, Cambridge, MA 02139." Notes run on a space-available basis only; priority is given to official Institute announcements and MIT student activities. *The Tech* reserves the right to edit all listings, and makes no endorsement of groups or activities listed.

Wednesday, Oct. 30

Tom Brokaw, anchor of "NBC Nightly News," will be a speaker in Cambridge Forum's new luncheon series. He will speak at the Harvard Club in downtown Boston at noon on "Does TV news encourage terrorism?" First in a series of downtown events. Luncheon reservation info at 876-9644.

Friday, Nov. 1

Black Rose Lectures presents an evening with **Rock against sexism** at 8 pm in Room 9-150. Free lecture and discussion. Live and recorded music and video all oriented around the issues of sexuality, sexism and violence in popular music. For more info, call 491-3668 or 734-1672.

Law School Forum to feature over 100 law schools. All are welcome. Also held the following day. The Boston Park Plaza Hotel, 50 Park Plaza, Boston. For more info, call x3-4737, or come by 12-170, Preprofessional Advising.

Wednesday, Nov. 6

"Are criminals made or born?" is the topic for this week's Cambridge Forum. Richard Herrstein and James Q. Wilson, professors of psychology and government respectively at Harvard, will explore the sources of criminal behavior: is it biologically based or a result of the social environment? 8 pm at 3 Church Street, Harvard Square. Free and open to the public.

Tuesday, Nov. 12

Lecture on "The challenges to feminist theory from global feminism," by Charlotte Bunch of the International Women's Tribune Center at 8 pm at Northeastern University, Frost Lounge, Huntington Ave., Boston. Free and open to the public. For more info, call 437-2686

Friday, Nov. 15

"Underwater discovery of the side-wheel steamer, **MOLSON**" by Drs. Andre Lepine and Jean Belisle, members of the *Comite d'Histoire et d'Archeologie Sub-aquatique du Quebec*. 7:30-8:30 pm, room 4-402. Drs. Lepine and Belisle will describe their excavation in the St. Laurence river of a 19th century side-wheel steamer.

Ongoing

The professional tutor staff of the MIT Writing and Communication Center (14N-317) will be glad to consult with you on any writing or oral presentation project (papers, theses, letters, etc.) from 10 am to 4 pm Monday thru Friday. You may either phone for an appointment (253-3090) or just drop in. In addition workshops for those for whom English is a second language are held in the Center on Thursdays from 4:15 to 5:15 pm. All services are free.

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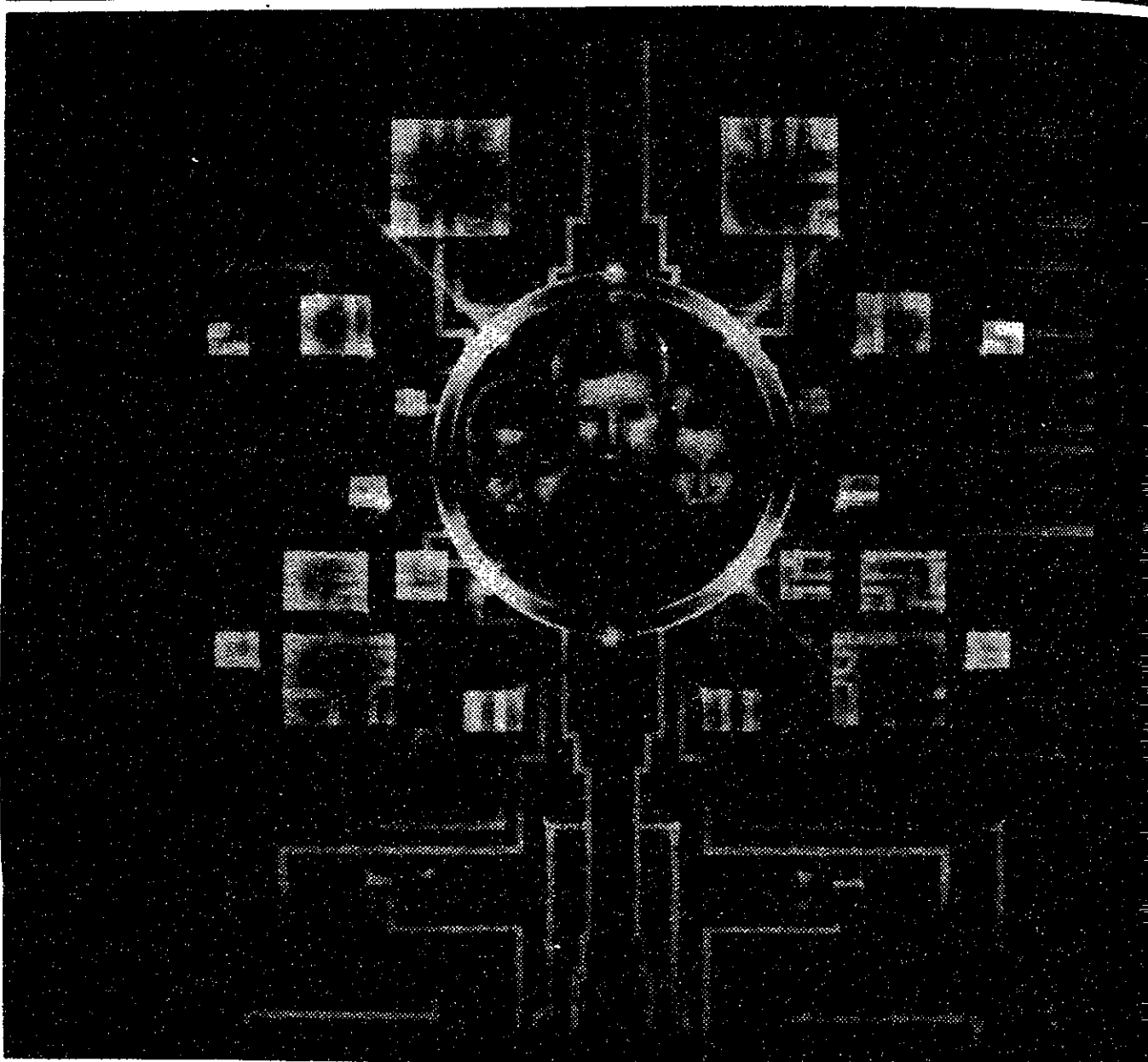
Getting High? or Getting Desperate? If drugs are becoming a problem, call or write: Narcotics Anonymous, PO Box 142, New Town Branch, Boston 02258, (617) 569-8792.

Local meetings held at the MIT Medical Department, E23-364, on Mondays from 1-2 pm.

The Departments of Materials Science and Engineering and Humanities and Social Sciences are announcing the **Kathlyn Langford Wolfe Awards**: two \$1,000 prizes to be awarded each year, one to an undergraduate student and one to a graduate student,

upon completion of an imaginative and significant project combining research in materials and humanities or in materials and the arts. Preliminary project proposal due Feb. 4, 1986. Final submission on April 25, 1986.

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Career Planning & Placement Room 7-111
CAMPUS INTERVIEWS
November 5, 1985

Black enrollment still below national averages

(Continued from page 1)

ties, according to Behnke. Recruiters give presentations at high schools with significant minority or women enrollment whenever possible.

MIT uses an affirmative action program in judging applications, Behnke said. "We don't admit anyone who is not a good candidate. But given the pool of strong applicants, we try to admit minority students."

"The goal is to admit as many as possible," he added. "The pool of black applicants was not as good as it has been in past years. Also, nationally, the numbers of black students going on to college declined" from 32 percent in 1977 to 28 percent in 1984, he explained. "And less blacks took the PSAT, from which we base our recruitment... There has been a drop from 1973 to 1984 in black applicants into the Ivy group."

No Puerto Rican students were enrolled at the Institute 25 years ago, according to the Admissions Office. But enrollment in that minority group, unlike black enrollment, has been increasing steadily over the past 25 years. Puerto Rican enrollment at MIT currently stands at above the national average — nearly two percent of the Class of 1989 are Puerto Rican, more than twice the figures provided by the 1980 national census. American Indian enrollment has been holding steady over the past 8 years.

Blacks composed 11.9 percent of the US population in 1982, according to that year's census. Blacks only compose 3.8 percent of the Class of '89. Harvard University has seven percent black enrollment in its incoming freshman class, while Wellesley College has 6.4 percent.

"I don't think MIT recruits anywhere south of San Antonio, or in southern California and Texas where there's a high concentration of Chicanos," said Armando Bernal '88, president of La Union Chicana por Atlan. "They don't know that MIT exists; no one's telling them to come here."

"There are only about two percent Chicano students when there should be six percent by national average," he said. "We're planning our own student recruitment program to change things but that's not our job."

Minority students have many difficulties even after enrollment. "It's never very clear why a person is here... The student never knows whether he's here on merit or affirmative action," Whitmal explained. "Self-confidence is the key to success at MIT. If you think you're not going to do well, you're probably not going to." He added that "the low visibil-

ity of black administrators and professors makes black students feel alienated and alone. You think you're going to have a harder time getting through here because you're black."

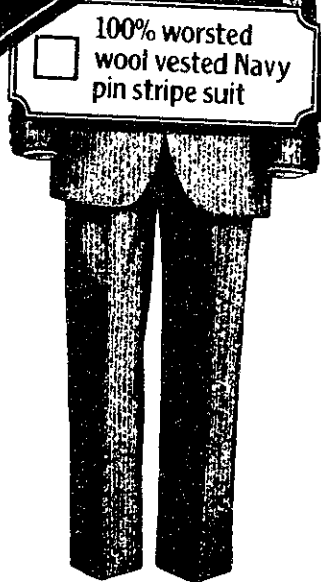
Another major problem is lack of finances. "MIT is not recruiting poor Chicanos," Bernal said, "and it is not helping those enrolled to pay. Chicanos haven't been graduating for financial reasons. Only one Chicano graduated last year [out of 20 enrolled in the original class]."



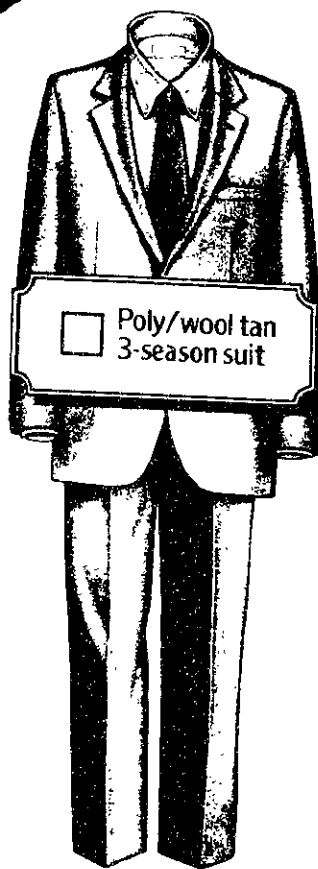
Freshmen and Sophomores line up in Lobdell Wednesday for the annual Ice Cream Orgy. This and other events were part of the Autumn Weekend celebration which culminated in MIT Football's Homecoming game Saturday.

Tech photo by Kyle Peltonen

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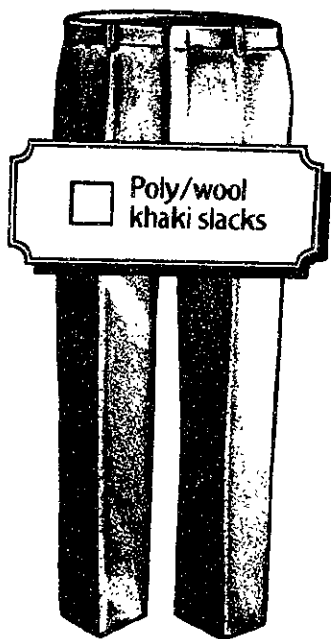
100% worsted wool vested Navy pin stripe suit



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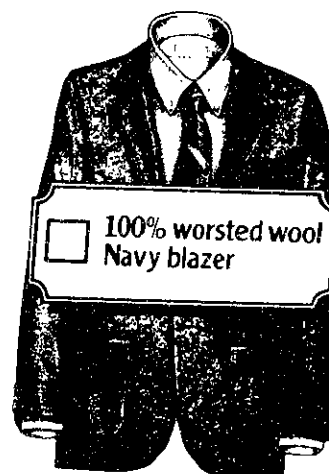
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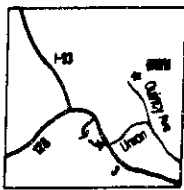
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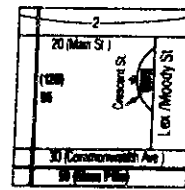


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Try the "buddy system," and ask a friend to quit too.

AMERICAN CANCER SOCIETY

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Director predicts SDI effectiveness

(Continued from page 1)

nautics and Astronautics and Electrical Engineering and Computer Science; and Scott Saleska '86 of MIT Student Pugwash.

Ionson said he began travelling around the country to clear up "SDI misunderstandings," addressing "audiences from liberal to radical."

He said he would not try to change the minds of listeners, but rather to provide information. "I will not even attempt to convey an illusion of objectivity," Ionson explained.

Ionson initiated his 45-minute presentation with a defense for the foundation of SDI.

"We all believe in peace through law and negotiation," he said. He asserted that offensive deterrence is currently necessary to back-up the negotiation process. Reducing arms can at best reduce the costs of the reliance, he said.

"Defensive deterrence could be a more moral alternative, and it should be investigated," said Ionson. "Defensive deterrence, remember, is non-nuclear and incapable of destruction." He stated the intent of SDI was to make nuclear weapons uneconomical and obsolete.

Ionson emphasized that "nothing is in the deployment scenario. We are only doing research . . . The US is engaging in open research of political, economic and technical issues."

To demonstrate his confidence in the feasibility of SDI, Ionson explained that the effectiveness will lie in the layering of defense shields along missiles' trajectories:

- The first layer covers the five-minute boost phase in which the rocket's flame is on and easy to detect. Ionson claimed this layer is 90 percent effective; only 140 of 1400 missiles would get through the first layer.

- The second layer, the five-minute bussing phase of the missile, can be covered with 80 percent efficiency. The 140 rockets escaping the first phase, Ionson explained, would mean that 1400 warheads would escape that layer. Only 280 warheads would escape the bussing phase, he said.

- In the midcourse phase of 30 minutes, Ionson claimed that SDI's 70 percent effectiveness would allow only 84 warheads to escape.

- The three minute exoatmospheric phase in which the missile reenters the atmosphere could be covered with 80 percent efficiency, Ionson claimed, allowing only 17 warheads to survive.

- In the endoatmospheric phase, Ionson estimated a 95 percent effectiveness rate. The end result is an 85 percent chance that only one of the 17 remaining warheads would ultimately escape the defenses.

Ionson cautioned that the effectiveness depends on the number of missiles in the attack.

Kistiakowsky was the first to respond following Ionson's presentation. She opened by arguing that Ionson's numbers on SDI effectiveness were purely hypothetical. "Their charming presentation does not make them real," she said.

SDI is technically infeasible, Kistiakowsky continued; it encompasses "no new ideas by and large." SDI is instead "based on stretching existing things to technological limits." She cited a

study which stated that at least 42 warheads could escape SDI defenses, killing 25 to 30 percent of the US population.

Kistiakowsky also addressed the fact that a retaliatory posture would still have to be maintained. Relying on SDI would be analogous to relying on a large fortress.

She also said the satellites are highly vulnerable relative to launch and reentry vehicles.

Kistiakowsky also quoted SDI Director General James A. Abrahamson '55, who stated, "A perfect astrodome defense is not a realizable thing."

Responding to Kistiakowsky, Ezekiel stated, "Research should be done even though on paper things look impossible."

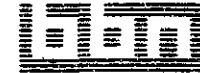
Saleska concluded by stating "if you believe in SDI, then go ahead . . . If you do not believe in SDI or you believe it will lead to the annihilation of the planet, then don't take the money . . . Educate yourselves."

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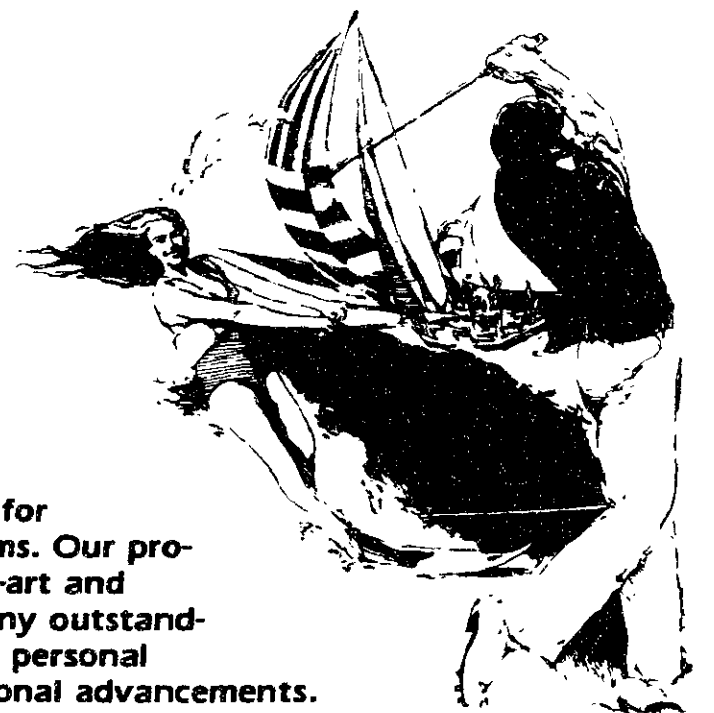
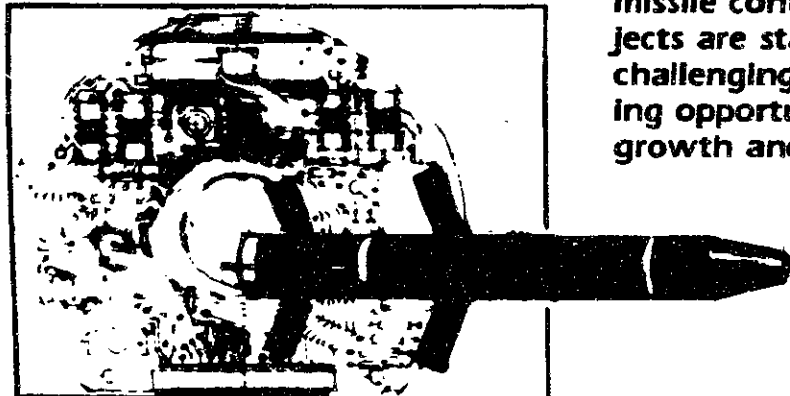


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MARTIN MARIETTA

Faculty opinions differ on student involvement

(Continued from page 1)
 cation is "a valuable resource," said UA President Bryan R. Moser '87. Such a resource is vital in answering "fundamental, philosophical questions about what MIT as a university should be."

Participation in educational policy decisions should be "more than a vote," Moser said. It should involve "being prepared ahead of time [and] knowing what the issues are."

"There should be an avenue available for graduate students if there is interest" in advising educational policy, Nell said. Whether there would be continued interest, she said, is "difficult to predict."

The GSC made its recommendation for three reasons, Nell explained. First, certain MIT graduate departments do not accept MIT undergraduates. Second, diversity encourages "innovation." Third, "enthusiasm and interest" are more appropriate criteria than the undergraduate institution which they attended.

Chairmen's opinions vary

Jack L. Kerrebrock, head of the Department of Aeronautics and Astronautics, and Dean of Engineering Gerald L. Wilson '61 co-chair a committee reviewing engineering education. That committee is likely to include only faculty members, Kerrebrock said. Students would participate in smaller meetings in each of the eight engineering departments.

Leo Marx, professor of science, technology and society, heads a committee studying an integrated liberal arts and technology program. While "certainly not closed to the idea," he said he is concerned that new members may have difficulty catching up with eight weeks of activity.

Robert J. Silbey, professor of chemistry, chairs a committee studying mathematics and science requirements. The members "would all welcome the counsel of students in our deliberation," whether undergraduate or graduate, he said. "Choosing the right people is still hard."

Pauline R. Maier, professor of history, heads a committee studying the humanities, arts and social sciences requirement. The perspective of undergraduates is "more desperately needed" than that of graduate students, in part due to the undergraduate emphasis of the humanities programs, she said.

Lack of student involvement cited

Wagner, once a student member of the former Committee on Educational Policy, is also co-founder of MIT Student Pugwash. She has been active in rais-

ing the issue of graduate student participation, and claims the faculty has been reluctant to seek student input.

She cites "seven months worth of lack of student involvement" up to and following the Woodstock, VT, meeting in May which initiated the curriculum review. Another example, which Moser noted, was a *New York Times* article on MIT's curriculum reform published on Sept. 29 — before MIT announced the review to students.

The issue of graduate student participation in undergraduate educational policy decisions is seen as an example of a larger problem. Wagner characterized the difficulty as a "lack of student input."

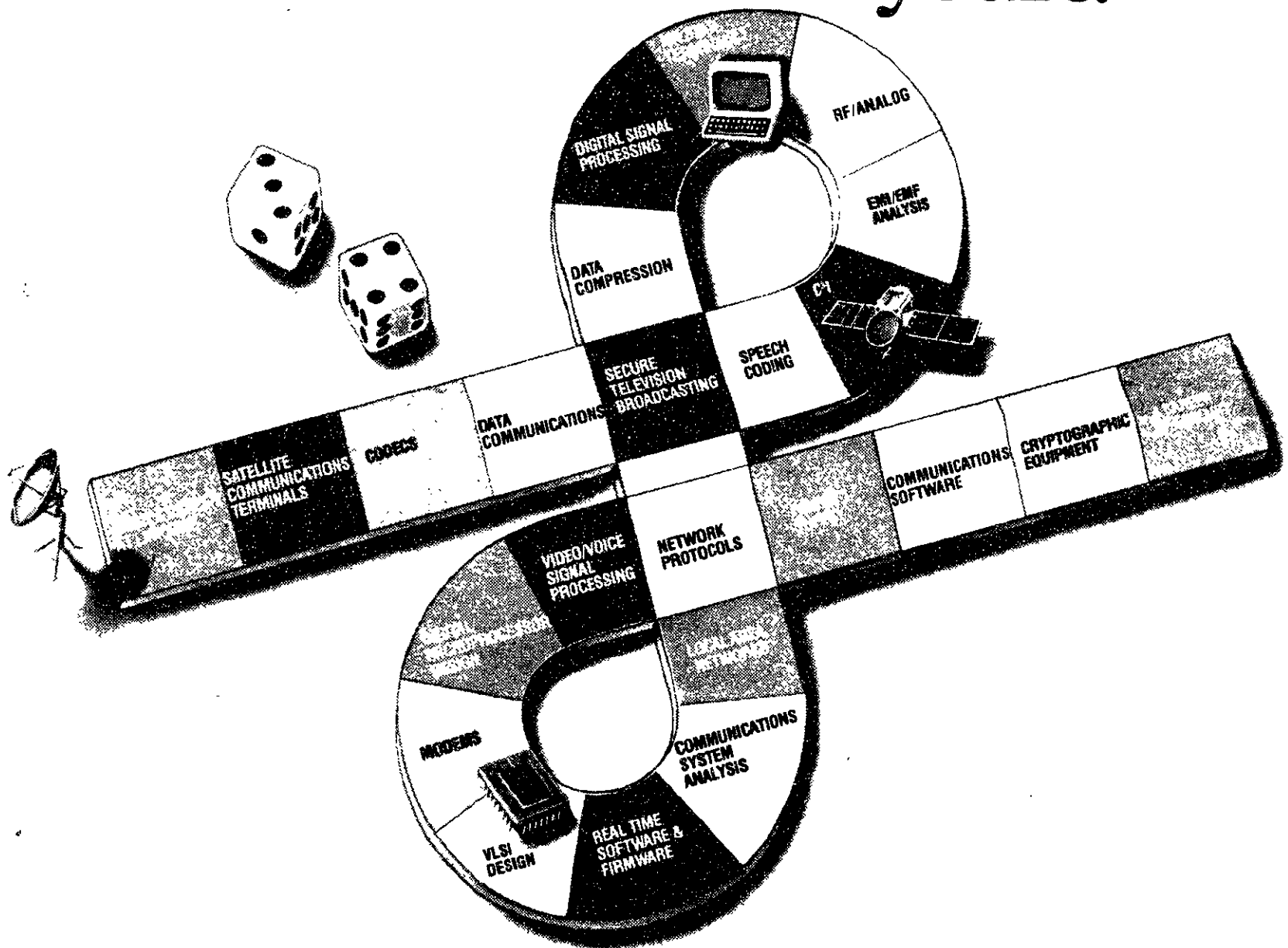
Moser's thoughts are similar: "Graduate students need to be understood a lot better around here."



Edward Savard '87 dribbles the ball in Saturday's match against the Coast Guard Academy Saturday. The final score: a 1-1 tie. Tech photo by Steven Y. Kishi

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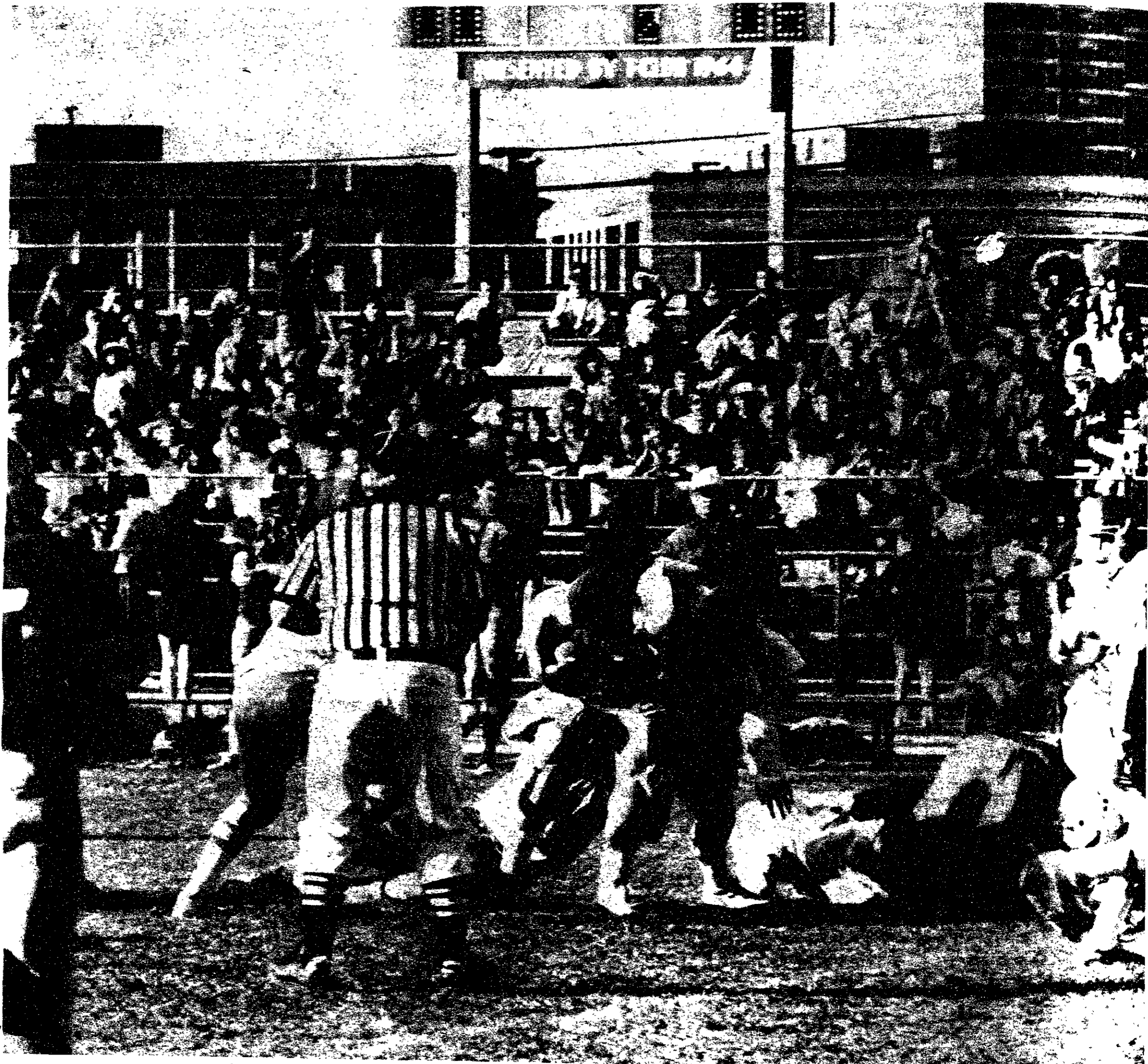
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Offense still out of town as Bentley whitewashes Beavers 22-0



Hugh Ekberg '88 plows through Bentley College defense in Saturday's Homecoming game. Despite a large, enthusiastic crowd of fans, the Engineers were defeated 22-0.

Tech photo by Steven H. Wheatman

By Jerome Braunstein

An estimated crowd of 1000 people witnessed the MIT Beavers lose their homecoming game 22-0 to the Bentley College Falcons in Steinbrenner Stadium Saturday.

"We played our worst game of the year," said an upset Dwight Smith, MIT head coach. Bentley Coach Peter Yetten earned his 50th career win.

Bentley 22, MIT 0

Bentley	0	6	0	16	-	22
MIT	0	0	0	0	-	0

Bentley—Paul Wessal 8 pass from Jonathan Heffin (pass failed).
 Bentley—John Copponi 25 run (rush failed).
 Bentley—Dan Campbell 37 FG.
 Bentley—Sean Collins 26 interception return (Campbell kick).
 Attendance—1000

	Bentley	MIT
First downs	17	7
Rushes-net yards	55-227	37-96
Passing yards	52	34
Passes	8-18-1	4-13-1
Return yards	30	52
Fumbles	2-85	7-274
Fumbles-lost	1-0	5-2
Penalties-yards	1-15	4-35

Individual Leaders

Rushing—Bentley, Copponi 17-98, Sinkewicz 23-139, Heffin 10-16, Cokorogianis 5-15. MIT, Ekberg 17-67, Adams 11-39, Gasparini 8-12, Maeda 1-8, Black 1-1.
 Passing—Bentley, Heffin 8-18-1-52. MIT, Gasparini, 4-13-1-34.
 Receiving—Bentley, Wessal 4-31, Copponi 3-19, O'Toole 1-2. MIT, Rice 2-28, Corless 1-5, Ekberg 1-1.

The defense, usually the strong part of the team, did not help the Beavers' injury-ridden offense. "We came out flat," said defensive co-captain Nicholas S. Nowak '86. Defensive co-captain Larry S. Monroe G explained that the team "considered [itself] to have a good running defense, but they still moved the ball. The defensive line wasn't getting off the ball."

Five-foot six 145 lb. defensive back Hong M. Yang '87 made the Beavers' only interception of the game. He recovered the errant Heffin pass in the end zone to stop a Bentley touchdown drive in the second quarter.

"I thought that I played well against the pass, but got beat on the outside run," Yang said. The Falcon ground attack was effective, gaining 261 yards rushing. The Beavers held their opponents to only 52 yards passing.

Defensive end Christopher P. Moreno '88, who left the game due to an aggravated groin injury, summed up the game saying, "We were mentally prepared, but not physically." Team prac-

tices were uninspired all week preceding the game, he added.

Because of injuries and academic demands, players either came late or missed practices entirely. Hugh B. Ekberg '88 started as center for John F. Ryan '89, who was away at a wedding. Later Ekberg substituted at quarterback for Peter J. Gasparini '88. Gasparini went out for a series after being hit in the head.

Ekberg last played quarterback when he was a sophomore in high school. As a result, the Falcons knew that MIT planned to run the ball. The usually strong MIT running game, which gained over 300 yards two weeks ago, was limited to 124 yards. Ekberg led the attack with 67 yards in 17 attempts. Christopher J. Adams '87 provided support, gaining 39 yards in 11 carries.

Gasparini returned later in the game and should be playing next week.

The score was relatively close during the first half. The Bentley Falcons first scored with an eight yard touchdown pass early in the second quarter. The point after

touchdown (PAT) attempt failed due to a bad snap.

MIT's lack of offensive punch was best demonstrated early in the first half. On two consecutive Bentley possessions the Beavers' defense shut down the Falcons deep in their own end, giving the MIT offense the ball inside the Bentley 30. On neither occasion was MIT able to gain even a first down, as their best scoring opportunities of the afternoon were wasted. This typified the offense's performance; MIT gained a total of only 130 net yards on the day.

The score remained 6-0 until

the fourth quarter, when Bentley scored again on a 25-yard run.

The PAT attempt again failed. After a Bentley field goal, the scoring concluded when Gasparini threw an interception which was taken for a touchdown. Gasparini ended the day with only four completions, for a total of 34 yards passing.

The Beavers play their last home game of the season against UMass-Boston at 1 pm Saturday. There are two games left in the season, and the Beavers need to win them both to avoid a losing record.

Erratum

Due to an editing error, a subscription coupon on Friday carried the incorrect prices. The correct prices are:
 US Mail — First Class: \$65 for two years, \$35 for one year.
 Third Class: \$24 for two years, \$13 for one year.
 Foreign — Canada/Mexico via air mail: \$38 for one year.
 Overseas via surface mail: \$38 for one year.
 Institute Mail — \$12 for two years, \$7 for one year.
 Prepayment is required.