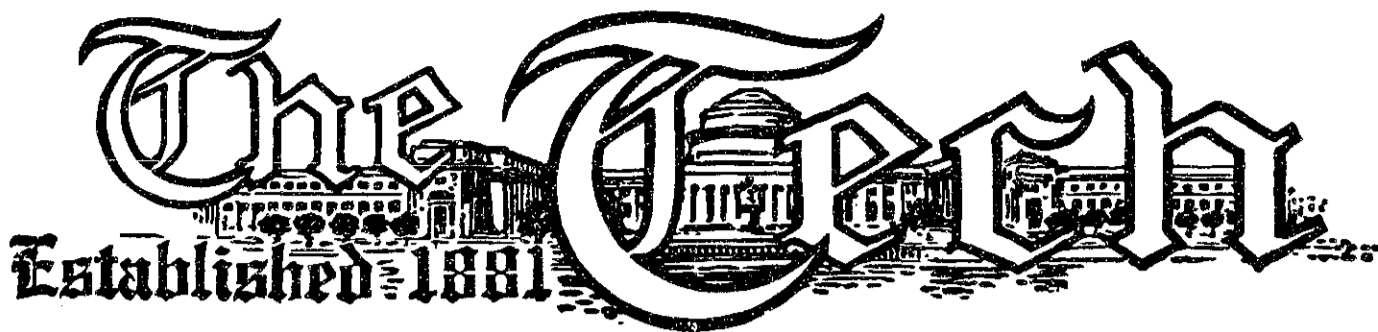


Commencement Today

MIT's
Oldest and Largest
Newspaper



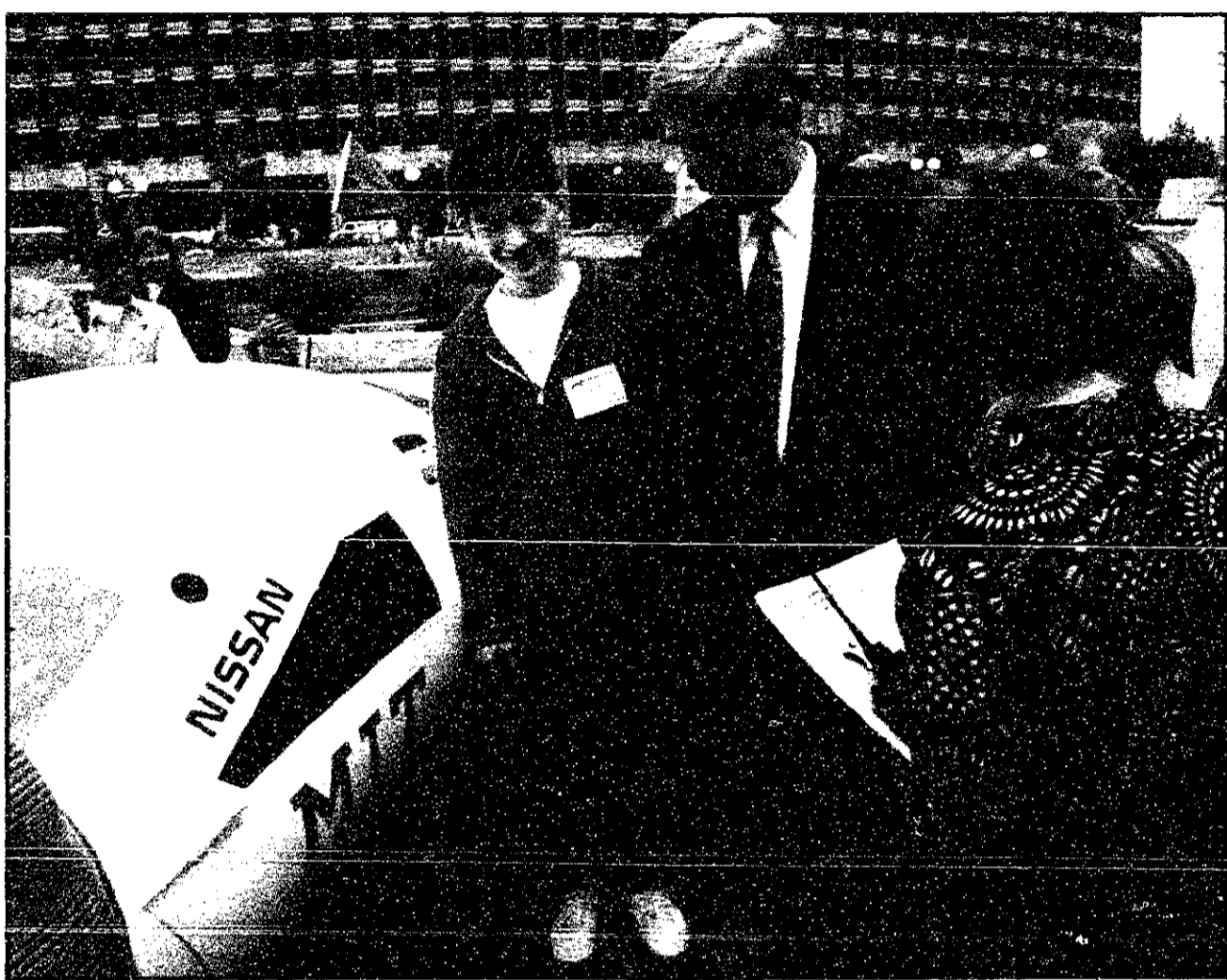
The Weather

Today: Chance of showers, 71°F (22°C)
Tonight: Cloudy, 56°F (13°C)
Tomorrow: Clearing, 68°F (20°C)
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Volume 113, Number 28

Cambridge, Massachusetts 02139

Friday, May 28, 1993



JOSH HARTMANN—THE TECH

Gov. William Weld (center) meets with Goro Tamal '93 of the MIT Solar Electric Vehicle Club at City Hall Plaza Monday for the start of the Tour del Sol solar car race through New England.

Faculty Approve Longer Calendar

By Jeremy Hylton
EDITOR IN CHIEF

The faculty voted last Wednesday to extend the Institute calendar year, passing a version of the Institute Calendar Committee's recommendations revised by Professor of Physics Robert L. Jaffe.

The new calendar will extend the length of each semester to 65 class days in most years, and lengthen Independent Activities Period to a full four weeks. The faculty also intends to allow departments to offer a single required course only during IAP.

The calendar, passed by an 83-13 vote, is a compromise between the current calendar and the calendar committee's original proposal, which called for a 67-day semester and would have shortened the summer by two weeks.

The length of the summer vacation remains largely the same under the new calendar because it does not extend the semester into weeks that are currently part of the vacation. Instead it eliminates vacation days at the beginning of the first week of fall classes and at the end of the last week of the spring term.

Beginning in the 1994-95 academic year, the fall term will begin on the first Wednesday after Labor Day

and the spring term will begin on the first Tuesday in February. Exam periods will run from Monday to Friday in both semesters.

Role of IAP debated

Jaffe argued that the new calendar is essentially as long as the calendar committee's original proposal because it adds teaching days during IAP in one of four years.

"The academic content of IAP would be increased significantly. This would have the effect of allowing departments to have students spend at least one intense IAP during their four academic years here," Jaffe said.

Increased flexibility and reduced pressure were the primary motivations behind the changes in IAP, Jaffe said. "There is no increase in the size of departmental programs, so hopefully [moving a class to IAP] will reduce the pressure on students," he said.

According to Jaffe, departments are given the option of offering a class only during IAP because of the difficulty of developing two versions of a course — one for a regular semester and one for IAP. Eliminating the need for a department to

Calendar, Page 8

5 Caught Stealing Computers

By Katherine Shim
NEWS EDITOR

Early last Friday, Campus Police caught five MIT students allegedly in the process of stealing \$20,000 worth of computer equipment from a computer facility in the basement of the Alfred P. Sloan Building (Building E52), said Campus Police Chief Anne P. Glavin.

According to the police report, the five students are Christopher B. Anderson G, John D. MacKenzie '93, Christopher B. Council '94, John K. Dorton Santiago '94, and Jose E. Ledesma '94.

Each is charged with "breaking and entering in the nighttime with intent to commit a felony, wanton destruction of \$250 worth of property, and possession of burglarious

tools," Glavin said.

Their cases will be heard in the Cambridge court system in late August, said Dean for Student Affairs Arthur C. Smith.

"We are also requesting internal disciplinary action" within MIT, Glavin said.

"These people will be tried through the normal court process. They have broken state laws — breaking and entering, destruction of property — these are all state laws," Glavin added.

Friday morning break-in

"On May 21 at 3:48 a.m., we received a call from Physical Plant," Glavin said. "A supervisor had noticed some suspicious activity by the computer cluster" in the base-

ment of the Sloan Building, she said.

Glavin refused to give the names of the officers who responded to the scene, the Physical Plant worker who alerted the police, or the names of any other potential witnesses.

"Since the case will go to court, I don't want to discuss who the officers are who were at the scene, or how many witnesses we have," Glavin said.

"When we got to the scene," Glavin said, "we found five students who were essentially in the process of stealing approximately \$20,000 worth of computer equipment," she said.

"We arrested one student immediately at the scene and have subse-

Theft, Page 8

HDTV Design Rivals Will Work Together

By Karen Kaplan
NEWS EDITOR

Members of the MIT Advanced Television Research Program have agreed to cooperate with their former rivals and jointly design a format for high definition television which will become the official U.S. standard for this revolutionary television technology.

Five years ago, the Federal Communications Commission invited proposals for a national standard for HDTV, which is expected to change the face of television the way color TV did when it was introduced in the 1950's. Only four systems, including one proposed by MIT,

HDTV, Page 14

COD Rules Slur Incident Occurred; No Blame Laid

By Brian Rosenberg
CONTRIBUTING EDITOR

The Committee on Discipline determined at a May 8 hearing that racial slurs were shouted from a

window in Phi Beta Epsilon on March 13. However, the committee "did not have enough evidence to implicate the students who had been charged," according to Dean for Student Affairs Arthur C. Smith.

"I'm happy those people were acquitted — I knew we were innocent," said Andrew T. J. Luan '93, PBE president.

COD Chair Nelson Y.-S. Kiang was out of the country and could not be reached for comment.

Smith said "there is nothing more to investigate" on the question of who made the remarks. "It still is possible that an individual may come forward" to claim responsibility for the shouts, he said.

Smith said he is "talking to [PBE] about what its responsibilities are and what might happen in the

PBE, Page 9



JOSH HARTMANN—THE TECH

Cliffs of Doonee performed in a concert sponsored by the Student Center Committee May 11 on the steps of the Student Center.

INSIDE

- 1,800 to graduate in Killian Court. Page 7
- Lawyers prepare for Overlap appeal. Page 7
- MIT projects larger budget shortfall. Page 9

WORLD & NATION

U.S. to Extend Favored Trading Status to China

THE WASHINGTON POST

WASHINGTON

President Clinton announced Thursday he will extend China's favored trade status for another year but will condition future extensions on human rights progress.

At the same time, Clinton declined to link two other issues with renewal of China's trading privileges. He said U.S. concerns about China's trade practices and foreign arms sales would be negotiated separately with Beijing.

The steps represent a retreat from Clinton's pledges during the presidential campaign, when he endorsed legislation that would tie renewal of China's most favored nation (MFN) status to its behavior on human rights, arms sales and trade with the United States. Clinton had accused President Bush of ignoring China's human rights record when Bush vetoed such legislation last year.

After months of review and unsuccessful diplomatic efforts to press China for cooperation, Clinton altered his approach. During a televised "town meeting" at the White House Thursday, he said the twin goals of supporting market reform in China and ensuring a significant share of Chinese trade for American business influenced his decision.

"But I want to make it clear to them that there has to be some progress on human rights," he added, making specific reference to China's use of prison labor. "Our trade disputes and our disputes about arms sales, I'm going to take out of this issue and negotiate with them directly."

Russian Court Backs Vote to Strip Yeltsin of Media Control

LOS ANGELES TIMES

MOSCOW

Russia's Constitutional Court dealt a sharp blow to President Boris N. Yeltsin Thursday by upholding the conservative-run Parliament's vote to strip him of control over state-owned television and news agencies. But whether the court's verdict actually means anything in the confusing turmoil of today's Russian politics became the topic of immediate debate.

The Itar-Tass news agency, the Russian Information Agency and Russian Television — the affected media — kept operating as before. Yeltsin's information czar, Mikhail Poltoranin, defiantly mocked the court as a "political tool" of the Congress of People's Deputies, which wholeheartedly opposes Yeltsin.

A more alarmist view came from the Izvestia newspaper, itself the target of an unsuccessful takeover bid by Parliament. The paper declared that Thursday's ruling spells the end of "the time of ephemeral openness, of semi-freedom of speech" in Russian media.

Ironically, the Constitutional Court had ruled in favor of Izvestia's independence last week.

The Congress also voted to shut down Poltoranin's Federal Information Center, which Yeltsin created to orchestrate a nationwide propaganda campaign for his reforms, the new constitution he wants for Russia and a pro-Yeltsin vote in April's referendum.

Mexico Offers \$5 Million Reward For Cardinal Killers

LOS ANGELES TIMES

GUADALAJARA, MEXICO

The Mexican government Wednesday offered an unprecedented \$5 million reward for information leading to the arrest of some of Mexico's top drug traffickers, including those allegedly responsible for the murders of a Roman Catholic cardinal and six other people.

The killings at Guadalajara's international airport Monday were a tremendous embarrassment to President Carlos Salinas de Gortari, who only recently renewed Mexico's diplomatic relations with the Vatican. The incident has unleashed a wave of criticism against the administration for failing to control Mexican mafias.

Deputy Attorney General Antonio Garcia Torres announced the reward at a press conference here and released sketches and descriptions of four of Mexico's mafia chiefs. One high-ranking official said the offer was "a call to society" for help.

"We know they move in and out of that area," said the official, who asked not to be identified. "People must see them. We want to try to get information to capture them."

Cardinal Juan Jesus Posadas Ocampo, his driver and five other people died in the airport parking lot Monday afternoon during what officials say was an attempt by one group of traffickers to assassinate leaders of a rival organization.

WEATHER

Cloudy but not much rain

By Yeh-Kai Tung
STAFF METEOROLOGIST

It seems like Commencement will be spared, after all. The bulk of the moisture associated with the low pressure cell will pass to the north, leaving us with just a few sprinkles. In addition, the highest chance of precipitation will be in the afternoon, so most of commencement will be dry. Behind this system is cooler, dry air, giving us a clear, sunny Memorial Day weekend.

Today: Cloudy with a few light showers possible, especially in the afternoon. Winds shifting from the northwest to the south 5-10 mph (8-16 kph). High 71°F (22°C).

Tonight: Continued cloudiness with scattered showers. Low 56°F (13°C).

Tomorrow: Cloudy start, then clearing. High 68°F (20°C). Low 54°F (12°C).

Sunday: Sunny. High 65°F (18°C).

U.S. Sailor Sentenced to Life Imprisonment in Murder

By Sam Jameson
LOS ANGELES TIMES

YOKOSUKA, JAPAN

A sailor who killed a gay shipmate was sentenced Thursday to life imprisonment after tearfully apologizing to the victim's mother and insisting he did not brutally beat her son to death because he was homosexual.

A jury of eight Navy and Marine officers imposed the sentence on Airman Apprentice Terry M. Helvey, 21, after deliberating only three hours.

Helvey showed no emotion as sentence was passed. The victim's mother, Dorothy Hajdys, said simply: "Thank you."

Wednesday, before the jury started its debate, Helvey faced Hajdys, the mother of Seaman Allen R. Schindler, 22, of Chicago Heights, Ill., and said, "I accept full responsibility for my actions. ... I wish your son were back. If I could redo this mess, I would. ..."

"What happened that night was horrible. But I am not a horrible person. I put my life in your hands," he added, sobbing.

Helvey, 21, made the plea in an attempt to persuade the jury to reduce his punishment. Under a court-approved bargain in exchange for his pleading guilty to "inflicting great bodily harm," the maximum penalty is lifetime imprisonment. Under the original charge, it was

death.

During Helvey's testimony, Navy Lt. Jacques Smith, a defense attorney, asked him directly, "Did you attack Schindler because he was homosexual?"

"No, I didn't. I did not attack him because he was homosexual," Helvey replied.

The apology contrasted sharply with testimony Tuesday by Kennon F. Privette, a Navy investigator. He told the jury of Helvey's admission to the slaying of Schindler during interrogation the day after the murder in a public toilet in Sasebo, Japan, last Oct. 27.

"He said he hated homosexuals. He was disgusted by them," Privette said. On killing Schindler, Privette quoted Helvey as saying: "I don't regret it. I'd do it again. ... He deserved it."

Wednesday, Helvey offered no direct explanation of why he killed Schindler, 22, a gay man who was awaiting discharge from the Navy. Nor did he disclose any details of what led up to the killing except to say that he and two other sailors from the amphibious assault ship Belleau Wood had purchased two large bottles of whiskey, a bottle of schnapps, a bottle of vodka, orange juice and a six-pack of beer and went drinking in a park.

Helvey said he had met Schindler before but did not explain how he knew his shipmate was a

homosexual.

"Why can't he just tell me why? What terrible thing did my son do to him that led him to kill my son?" Hajdys said during a recess.

Helvey's courtroom apology was the first time since pretrial hearings began in February that Helvey had shown any emotion.

When Hajdys described her sorrow in testimony Tuesday, Helvey avoided looking at her by keeping his head facing down, seemingly writing notes.

Defense attorneys showed the jury nearly two hours of videotaped interviews from Helvey's neighbors and friends in Fredericktown, Mo., where he spent most of his youth. Many of them described Helvey, who was born in Eloise, Mich., as "closer than a brother." One old girlfriend said the family dog "never barked at Terry."

It was part of a defense attempt to portray Helvey as a youth who had overcome child abuse and a broken home to become a model citizen but who murdered Schindler under the influence of alcohol and steroids.

The prosecutor countered with a witness given immunity from prosecution who testified that he and Helvey had set Helvey's 1984 Chrysler afire just two months before the murder in a scheme to collect insurance money as Helvey was about to sail for Japan.

House Leaders, Conservative Democrats Reach Agreement

By William J. Eaton
and David Lauter

LOS ANGELES TIMES

WASHINGTON

House leaders and conservative Democrats reached agreement early Thursday on a new procedure designed to curtail spending, raising hopes for passage of President Clinton's \$496 billion deficit reduction package in a major congressional showdown only hours away.

An elated Speaker Thomas S. Foley, joined by Rep. Charles W. Stenholm, D-Texas, and Rep. Timothy J. Penny, D-Minn., announced the agreement after days of negotiations.

"This is a very positive development," Foley said.

The outcome was expected to help pass the troubled bill by picking up crucial votes of wavering Democrats when the massive bill to raise taxes and trim spending comes to a vote later Thursday.

Foley said the agreement "does build momentum" toward gathering the votes Democrats will need.

"This is a major, significant change regarding the budget process," Stenholm said.

Penny, another top conservative, said, "We'll do what we can to get the votes" to pass the deficit-reduction bill.

The agreement does not guarantee that spending will be restrained, but it does put pressure on the president and lawmakers to do so. Under the mechanism, spending targets would be set each year for Social Security, Medicare and the rest of the government's rapidly expanding benefit programs, which together account for half of the federal budget.

If the target is exceeded, the president would have to propose paying for the excess with tax increases, spending cuts or both — or with borrowing, which drives up the deficit. Congress would then have to vote on his proposal, or one of its own, officials said.

Clinton worked the phones late into the day Wednesday to gain support for his budget plan.

White House officials conceded privately that failure to pass the budget bill in the House would deliver a devastating blow to an administration already staggering from a series of self-inflicted wounds.

"We realize the whole presidency is on the line now," said Rep. Charles B. Rangel, D-N.Y. "This presidency is going to be made or broken in the next couple of weeks, and I want to make certain it's not broken in the House of Representatives."

White House officials used less dramatic language in public but acknowledged privately that the vote is critical.

"We're finally starting to climb out of the toilet, and we've got our fingers up to the rim," one senior White House aide said.

Winning, on the other hand, could mark the beginning of another of Clinton's much-vaunted comebacks — or so his aides hope.

The bill in question would enact Clinton's budget plan, which is aimed at reducing the size of the federal deficit by \$496 billion over the next five years. It would raise taxes by a net \$250 billion during that period — one of the largest increases in U.S. history — and reduce spending for mandatory benefits and other direct-spending programs by a net \$87 billion.

Most of the political controversy over the bill has come from Clinton's proposed new energy tax, which would hit middle-class taxpayers. The tax would cost roughly \$17 per month for an average family once it is fully in place, according to Treasury estimates.

Although some House Democrats have called for a delay in the vote, White House officials repeatedly ruled out any such talk, arguing that a delay would merely make

Clinton look weaker and would not, in the end, rally any extra votes.

"We'd just get killed all weekend," one Clinton adviser said.

By the time he left his office for dinner Wednesday, Clinton had called some two dozen House members, aides said, adding that they expected him to call still more during the evening.

Clinton met Wednesday morning with members of the Congressional Black Caucus, some of whom have threatened to vote against the budget because it would cut benefit programs too deeply.

"Until it's done, there's a little bit of a problem everywhere," White House communications director George Stephanopoulos said. "It's all about balancing."

Administration vote counters said earlier Wednesday that of the 256 Democrats in the House, some 20 were certain to vote against the budget. Another 30 to 40 were considered wavering — including many House freshmen, who have not yet had to cast such a difficult vote.

Because two House seats are vacant, a majority in the chamber is currently 217 votes.

In the search for votes, Clinton went so far as to call at least three moderate Republicans asking for support. The effort seemed in vain. Rep. Christopher Shays of Connecticut, one of the Republicans called by Clinton, predicted House Republicans would be unanimous in opposing the budget, and most Democratic vote counters agreed.

In addition to reducing spending for mandatory benefits, the budget bill would freeze spending on other programs, thereby forcing a \$102 billion reduction in outlays for defense, foreign aid and domestic spending.

The remainder of the deficit reduction would be accomplished by lower interest rates leading to lower payments on the national debt.

Mexico Employing Extensive Lobbying Crusade for NAFTA

By James Gerstenzang
LOS ANGELES TIMES

WASHINGTON

The Mexican government has unleashed the most expensive and elaborate foreign lobbying campaign ever undertaken in this country, hoping to ensure passage of the trade agreement it wants with the United States and Canada, a non-profit research organization reported Thursday.

And as Mexico's lobbying for the North American Free Trade Agreement came under scrutiny, the White House was considering establishing a special unit to counter billionaire industrialist Ross Perot's efforts to defeat the agreement.

"There is significant concern" about Perot's anticipated campaign to defeat the agreement, a Democratic source close to the White House said. He said aides to President Clinton were contemplating a rapid-response effort similar to that employed by the Clinton presiden-

tial campaign.

Perot has purchased a half-hour of network television time on Sunday evening as part of his public crusade to defeat the agreement.

Meanwhile, in Canada — where the agreement is widely opposed — Prime Minister Brian Mulroney on Thursday used his strong majority in Parliament to ram ratification through the House of Commons.

The agreement now goes to the Canadian Senate, which also is controlled by Mulroney's Progressive Conservatives.

Mexico's U.S. effort to ensure approval by the U.S. Congress has cost more than the previous three largest foreign lobbying campaigns combined — one each by South Korea, Japan and Kuwait — in the past quarter-century, according to the Center for Public Integrity, an organization partly funded by labor unions that conducted a lengthy study of Justice Department records. Since 1989 Mexico has spent \$25

million in seeking the support of politicians and the American public for NAFTA and is likely to spend as much as \$10 million more as the issue comes to a vote in Congress later this year, the center found. The 1993 figure is similar to an estimate offered by Mexico's ambassador to the United States, Jorge Montano, in a recent interview with the Los Angeles Times.

The study presents a look at how the money is being spent and portrays a concerted effort to sign up former U.S. government officials to present Mexico's case. In addition, it found that others who have pressed in the past for approval of the treaty are now members of the Clinton administration.

While the director of the study, Charles Lewis, said that the lobbying campaign breaks no laws, it does highlight the extent to which the agreement's proponents are going to gain approval in what both sides concede will be a very close contest.

Bosnian Croat Leader Plans to Create, Protect His Own State

By Carol J. Williams
LOS ANGELES TIMES

GRUDE, BOSNIA-HERZEGOVINA

Encouraged by the Bosnian Serbs' purported independence and Western reluctance to preserve the republic, the Bosnian Croat leader said Thursday that he has no choice but to create and protect his own separate state.

Self-styled Croat president Mate Boban has adopted a ruthless pragmatism in laying claim to most Bosnian territory not yet under Serbian rebel control and abandoning the Muslim allies he blames for losing the rest of the republic.

Although Boban denied in an interview any formal deal with the Serbs to divide Bosnia, he acknowledged that the original adversaries in the bloody Balkans conflict have lately refrained from fighting each other and have more in common in their visions of the future than with the Muslims they are both now fighting.

"Everyone now has his own government, temporarily, on the freed territory he controls," Boban said of the Bosnian Serb, Muslim and Croat leaders. "Otherwise, there would be chaos. If you are left alone, you have to take care of yourself."

Boban and virtually all of the 750,000 Bosnian Croats he claims to represent insist that the government in Sarajevo now speaks only for Bosnia's Muslims, who are the largest of the republic's three major ethnic groups but have been herded into a handful of shell-shattered urban ghettos covering far less than 10 percent of republic land.

Boban's scathing remarks toward Bosnian President Alija Izetbegovic and other Muslim officials seemed to confirm a thorough collapse of the Croat-Muslim alliance formed at the start of the war, when Serbian rebels trained their guns on the other two ethnic groups in defiance of their vote for independence.

Top Serbian and Croatian officials have met periodically for the past two years in what Western diplomats believe has been a series of attempts to resolve their disputes by dividing Bosnia between them so that each would have an expanded, enriched and more easily defended new state.

Boban a year ago traveled to the Austrian city of Graz for a clandestine meeting with Bosnian Serb leader Radovan Karadzic, and the presidents of Serbia and Croatia are reported by their advisers to have

discussed a Bosnian carve-up as long as two years ago.

A top aide to Karadzic effectively confirmed a Serb-Croat division plan when asked about it earlier this month.

"The Croats wanted it this way," said Slavisa Rakovic, the Bosnian Serb publicity chief in the rebel stronghold of Pale.

Rakovic described the Croats as more suitable partners in negotiations to restore peace to Bosnia because, he said, they hold the "balance of power."

Boban's chief media adviser, Slobodan Lovrenovic, likewise described the Serbs as a more credible force to contend with.

"Serb forces are there and they are going to stay there," he said of the vast Bosnian territory the rebels occupy. "You have to be realistic Serbs are ready to make a peace plan based on the situation on the ground."

Suspicious of a Serb-Croat plot to carve up Bosnia were rekindled just last week when the Bosnian Serb commander, Gen. Ratko Mladic, and Boban's military chief, Gen. Milivoje Petkovic, signed a cease-fire that effectively accepted the territorial status quo.

Japan to Take Tough Opening Stance in Trade Talks With U.S.

By Paul Blustein
THE WASHINGTON POST

TOKYO

Here is what Japanese government officials will say at their first major trade negotiations with the Clinton administration: There can be "no discussions" of the U.S. side's central demand that Tokyo achieve specific targets for the importation of foreign products.

That is the message of an internal Japanese government document, which stakes out a tough opening position for talks on creating a new "framework" for resolving U.S.-Japan trade problems.

Foreign Ministry officials, who furnished the document Thursday night to a small group of American reporters, said it represents the consensus within the government of what Japan must say at the negotiations, which are scheduled to begin early next month in Washington.

The government document shows that Japanese negotiators intend to take an uncompromising position at the outset, raising the prospect that U.S.-Japan relations will become particularly strained

over the next several months.

Japanese Prime Minister Kiichi Miyazawa and other officials have warned that Tokyo will resist the approach apparently favored by the administration, in which Japan would increase its imports by agreeing to set government-mandated targets.

"Managed-trade approaches will be precluded," the document states in setting forth the underlying principles Japan feels must be understood at the outset of the talks. "In this regard, no discussions will be made for the purpose of setting a numerical target" for imports of specific products or the reduction of Japan's huge trade surplus.

With striking bravado, the Foreign Ministry officials said they fear U.S. trade sanctions against Japanese products significantly less than they used to.

One senior official said that in the past, Japan has bent to U.S. trade demands for two reasons — because "Japanese business was making money in the U.S. market," and because Japan's political establishment placed enormous importance on maintaining friendly rela-

tions with Washington.

But these days, he said, "Japanese businesses have begun to lose money on their investments in the U.S."

And Tokyo has concluded that if the Clinton administration imposes sanctions, Japan should respond not as if it has lost its best friend but with calm resolve, either by filing a complaint with the Geneva-based General Agreement on Tariffs and Trade or by imposing sanctions of its own against American exports.

Once both sides had acted against the other, they might find it politically easier to return to the negotiating table and reach a settlement, the official said.

The officials voiced some sympathy for the U.S. frustration with Tokyo's stubbornly high trade surplus and the difficulties foreign firms face in cracking the Japanese market.

"We recognize the need to launch some initiatives," one official said. "And we will do so — with measures to increase transparency (of government regulations) and increase competitive conditions in the Japanese market."

Design for HDTV Said Flawed

THE WASHINGTON POST

WASHINGTON

The debate seemed more fitting for a convention of electronics engineers: Should the microscopic lines that make up a video image change in unison as they simulate motion, or is it enough if only every other line changes at a time?

But the setting was a Capitol Hill hearing room, where lawmakers were evaluating a private-sector drive to give the United States the new video technology known as high-definition television.

Monday, four rival groups of HDTV developers announced they had joined forces. But at the hearing Thursday before the House subcommittee on telecommunications, a computer-industry representative and a researcher argued that the new consortium's proposed design is flawed, based on how the screen lines would interact.

"We're making a decision we'll have to live with for 50 years," said Nicholas Negroponce, head of the Media Lab at MIT.

The debate over picture technology stems from the fact that TV and computers are incompatible. Without special adaptive equipment, you can't use a television as a computer monitor, or see a TV show on a computer screen.

Computer screens, meant for close-up use, employ a "progressive" system of scanning. Each line is updated at once. That helps to create a non-shimmering screen, on which text can be read for long periods with ease.

HDTV is commonly seen as a key device for the information highway and a predicted merger of TV sets and computers. A person could use one unit to watch a football game, type a letter, balance the checkbook or tap into a distant database.

Jury Deliberations Begin in Retrial Of Suspended Miami Police Officer

THE WASHINGTON POST

ORLANDO, FLA.

Jury deliberations began late Thursday in the racially charged manslaughter retrial of William Lozano, a suspended police officer, while Miami held its breath and leaders there appealed for calm.

Roy Black, Lozano's lawyer, ended his defense by reading a poem about the life of a police officer. Lozano, charged with recklessly killing two black men, wept quietly, dabbing his eyes with a white handkerchief.

Lozano, a Colombian native, is accused in the deaths of two men fleeing police on a motorcycle Jan. 16, 1989, the Martin Luther King Jr. holiday. The driver was shot, and the passenger died in the ensuing crash. Their deaths sparked three nights of looting, gunfire and violence in Miami.

"No one wants to believe that William Lozano went out and killed these people," prosecutor John Hogan told jurors. "But I submit that's what happened."

Dade County Circuit Judge W. Thomas Spencer ordered a four-hour delay in announcing a verdict after Gov. Lawton Chiles, D, said Wednesday that police and National Guard troops first must be in place in Miami. The delaying tactic would be similar to that last month in Los Angeles where a jury trying four police officers finished deliberating in mid-afternoon but a judge withheld the verdict until the next morning.

Terrorist Bombing Kills Five, Destroys 17th Century Art

LOS ANGELES TIMES

ROME

A terrorist bomb that killed five people outside Florence's renowned Uffizi Palace early Thursday destroyed several minor 17th century works of Italian art, damaged some works by renowned artists but left the museum's most famous paintings and sculptures unharmed.

Italy's interior minister promptly called the bombing the work of "Mafia terrorism" at a time when Italian authorities are waging their most successful campaign ever against organized crime.

The bomb, planted in a parked car that had been stolen hours earlier, dug a crater 10 feet wide and 6 feet deep between the 16th century Uffizi Palace and an agricultural archive across the street. Police said they had a description of a man who walked away from the car shortly before the blast.

The explosion demolished a nearby four-story archive building, killing its custodian, her husband, her 8-year-old daughter and her 9-month-old baby. Police found an additional body, that of a 22-year-old architecture student who lived across an alley from the Uffizi's heavily damaged west wing. About 30 people were injured.

The Uffizi was less severely damaged than the archive, although most of its windows were blown out by the force of the blast. The museum houses Italy's most precious art collection, including Sandro Botticelli's "Birth of Venus," Leonardo da Vinci's "Adoration of the Magi" and Michelangelo's "Doni Tondo," his only completed oil painting. Also in the collection is the "Medici Venus," a 2,000-year-old marble sculpture that had been in the collection of Florence's ruling Medici family.

A Straight-A Recovery for Grad

LOS ANGELES TIMES

LOS ANGELES

The valedictorian at Thursday night's Los Angeles City College commencement ceremony will speak from experience when he urges his 550 classmates to look with optimism to the future.

Former cocaine addict William Alexander Jr. is happy to forget about the past.

"It's a miracle I'm here, actually," says the man who emerged from a series of rehabilitation centers to become a straight-A student. "I could never imagine this. Never."

On Tuesday, Alexander was among 23 psychology students who completed an unusual Alcohol/Drug Studies program at the Vermont Avenue campus. It turned out he wasn't the only one who had lived the curriculum — not just read about it in textbooks.

Classmate Paul Foucher, arrested more than 100 times on drug-related charges, now is headed for the University of California, Berkeley. Linda Young, a practicing alcoholic four years ago, is University of California, Los Angeles bound.

OPINION

Letters To The Editor



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Jeremy Hylton '94

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Benjamin A. Tao '93

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Wrighton Comments On Tewhey Distort Truth, Attack Nolan

We deplore the comment made by Provost Mark S. Wrighton, "Only one complaint was filed against former Associate Dean James R. Tewhey during his tenure here and that was without merit." ["Tewhey Complaint Was Without Merit," Apr. 27] This comment completely erases the complaint made by eight members of Tewhey's staff last spring. Wrighton's comment also erases the complaint brought forward by staff member Katherine M. Nolan. Unsuccessful in using MIT's system to stop Tewhey's harassment (she acquired a cease-and-desist order through MIT Campus Police against Tewhey on February 22), Nolan was evidently forced to take further action outside the system and obtain a restraining order on April 9th from the Newton District Court against former Dean Tewhey because of his continued harassment.

Such misinformation and distortion reported on the front page of MIT's student newspaper only compounds the problems emanating from the Residence and Campus Activities

Office. While Wrighton may only know of one complaint, we know there were others filed with Dean for Student Affairs Arthur Smith, the Personnel Office, and Campus Police. Wrighton's evident lack of knowledge only points out the problems inherent in a multi-access system and demonstrates the need to centralize the process of addressing sexual harassment complaints.

We also strongly deplore the attacks on Nolan and ask that she be given whatever supports and relief are possible. It is very disturbing that the provost felt compelled to defend Tewhey, rather than support Nolan, with his statement, "He [Tewhey] felt the time had come to resign... I agreed with his assessment and accepted his resignation without any pre-judgement on the harassment allegations involved in the court order." This statement veils the reality of Tewhey's known harassment, evidenced by Nolan's need to use MIT's system to acquire a cease-and-desist order which ultimately proved ineffective. It is a further distortion on the part of Wrighton to suggest that this specific case of harassment was reducible to a contest between two people, rather than associated with a larger pattern of power abuse by Tewhey, which is the defining characteristic of harassment and

stalking. Wrighton's comments and stance again substantially reduce confidence in MIT's ability to formulate, implement, and practice a credible sexual harassment policy and set of procedures.

We also deplore Tewhey's efforts to claim that he is the real victim of sexual harassment and present himself as a harmed person in need of protection ("fears continued harassment"). From the reports, it seems clear that Tewhey was the perpetrator, not the victim. To cite the discomfitures to him inherent in the process of redressing his abuse of others, as harassment, is a gross manipulation and further traumatizing to the individuals he victimized.

We urge the Institute to implement a credible harassment policy and procedures, to centralize the process of receiving and resolving sexual harassment cases in order to avoid the situation outlined above, and to create a system whereby victims of harassment may have their claims quickly and honorably addressed and resolved.

Ann Russo
Stephen Brophy
Selya F. R. Price '93
For the Ad Hoc Committee
Against Harassment at MIT

Don't Throw Away McHugh's Life

Column by Josh Hartmann

PHOTOGRAPHY EDITOR

Hanging in the balance of the court proceedings surrounding the September murder of Yngve K. Raustein '94 is a second life, one threatened by Tom Reilly, the Middlesex County district attorney, as he attempts to try Shon McHugh as an adult rather than a juvenile. Since the October 1993 night that Shon, a 16-year-old boy, was arrested for allegedly bludgeoning Raustein to death on Memorial Drive, the push has been on to see that Shon spends the rest of his life in jail.

In a fit of public posturing the morning after the murder, Reilly announced his intention to try Shon as an adult and released the alleged perpetrator's name. (Reilly's Suffolk County counterpart apparently doesn't do

business the same way; when a teenager was killed in an Orange Line station in Boston last week, the names of the teens arrested in the incident were withheld from the media.)

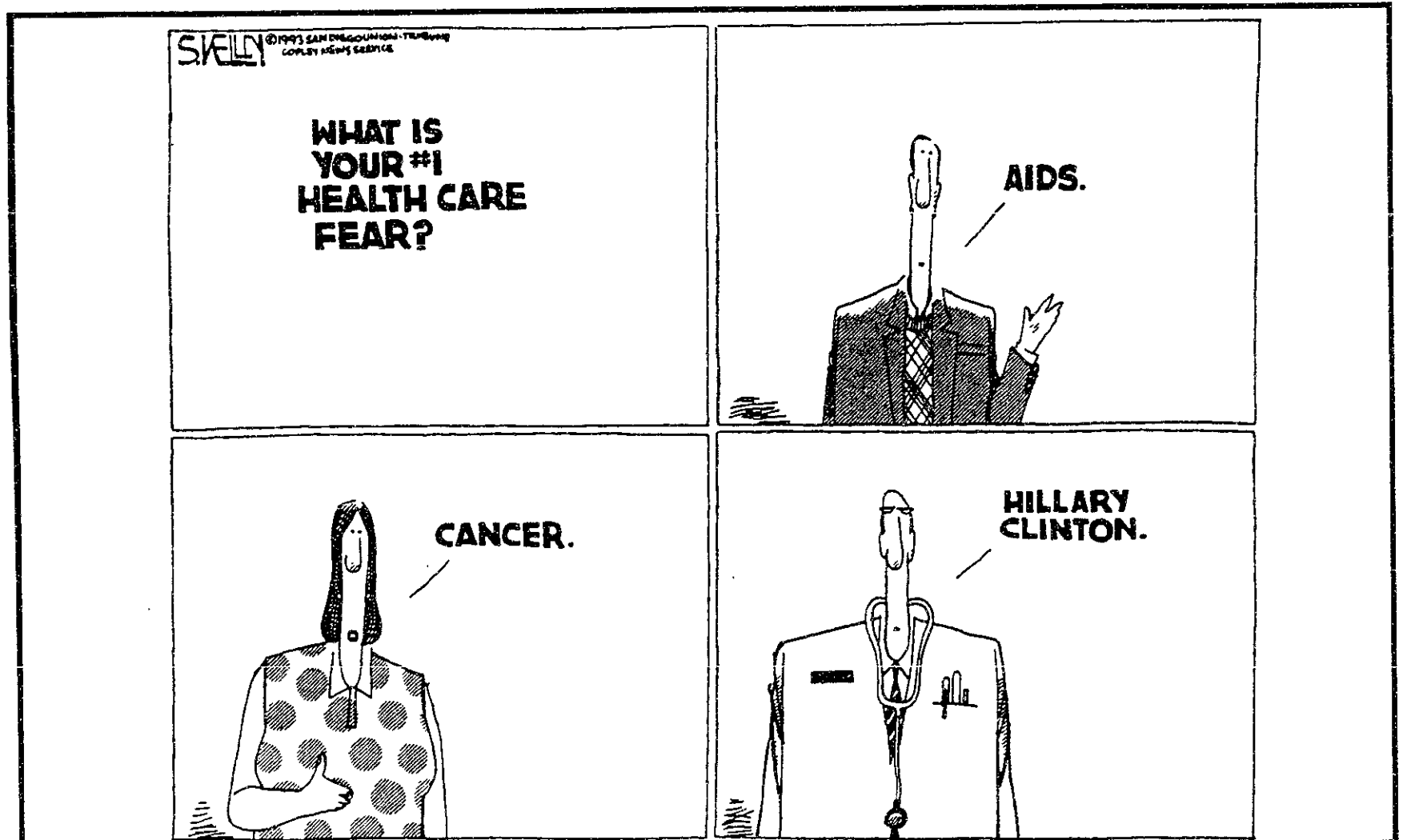
Granted, if you're looking through Webster's to find the best word to describe Raustein's murder, bludgeoning certainly fits the bill. The crime was a gross example of some of America's worst problems: teenage delinquency, lack of respect for human life, the crumbling of strong working class families. (Is the term family values in Webster's yet?) While we don't yet know the details of whether Shon was drunk, high, or insane at the time of the incident, Reilly's attempt to stick it to Shon certainly appeals to the vengeful side of human nature.

At some point, society has to take some of

the blame for such a tragedy. Unfortunately, Reilly would rather see two people die than just one. Let's pretend for a minute that Shon is guilty. Here's what this transfer hearing means: Convicted as an adult for murdering Raustein, Shon faces the rest of his life behind the bars of an adult prison, with adult murderers and rapists obstructing his view. No doubt he will be a victim of those rapists himself. And Reilly would say, "Serves him right."

But if Shon's attorney succeeds in demonstrating the appropriateness of a juvenile charge, Shon will probably face about 20 years' time, and will be in a juvenile facility — clearly a kinder, gentler place — until he is at least 21, and possibly 23, years old. He will

Hartmann, Page 5



Opinion Policy

Editorials, printed in a distinctive format, are the official opinion of *The Tech*. They are written by the editorial board, which consists of the chairman, editor in chief, managing editor, executive editor, news editors, and opinion editors.

Dissents, marked as such and printed in a distinctive format, are the opinions of the signed members of the editorial board choosing to publish their disagreement with the editorial.

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 must be typed, double-spaced and addressed to *The Tech*, P.O. Box 29, MIT Branch, Cambridge, Mass. 02139, or by interdepartmental mail to Room W20-483. Electronic submissions in plain text format may be mailed to letters@the-tech.mit.edu. All submissions are due by 4 p.m. two

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Letters and cartoons must bear the author's signatures, addresses, and phone numbers. Unsigned letters will not be accepted. No letter or cartoon will be printed anonymously without the express prior approval of *The Tech*. *The Tech* reserves the right to edit or condense letters; shorter letters will be given higher priority. Once submitted, all letters become property of *The Tech*, and will not be returned. We regret we cannot publish all of the letters we receive.

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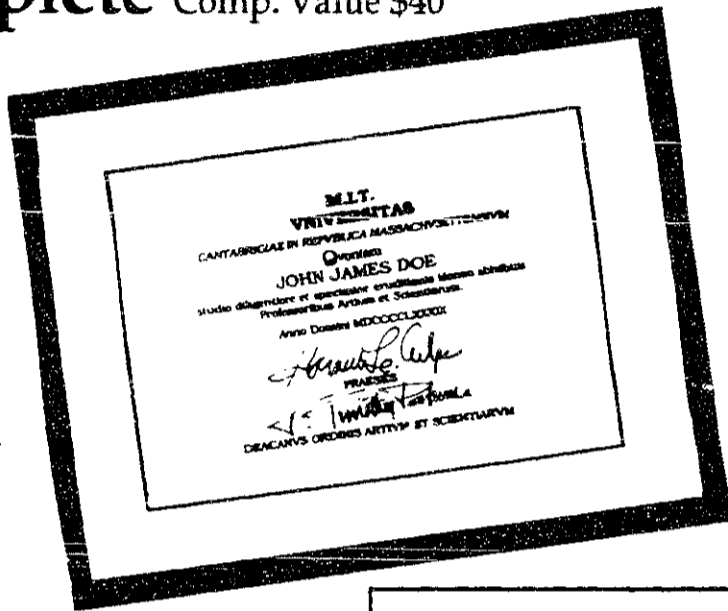
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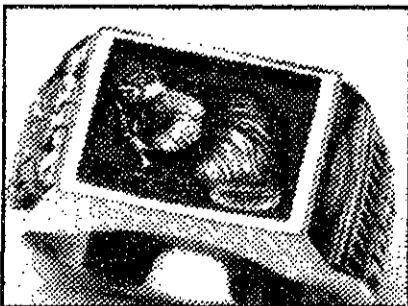
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THE VALUES ARE CLASSIC

MIT Hopeful for Appeal In Overlap Antitrust Case

By Karen Kaplan
NEWS EDITOR

President Charles M. Vest and attorneys for MIT are hopeful that a September ruling that MIT violated antitrust laws when it discussed financial aid awards with members of the Ivy Overlap Group will be reversed on appeal next month.

MIT was acting as a charity and not a business when it met with the Overlap Group to discuss the financial aid packages that would be offered to admitted students, and therefore antitrust laws do not apply, MIT's attorneys plan to argue to a panel of three judges who will convene in Philadelphia on June 22 to hear the appeal.

In September, U.S. District Court Judge Louis C. Bechtle ruled that MIT violated the Sherman Antitrust Act when it met with the eight Ivy League colleges and discussed the financial aid packages that would be offered to high school seniors admitted to more than

Overlap, Page 15

Over 1,800 to Graduate Today

By Brian Rosenberg
CONTRIBUTING EDITOR

Over 1,800 students will receive some 2,000 degrees at MIT's 127th Commencement exercises, to be held today in Killian Court.

Mexican President Carlos Salinas de Gortari will deliver the Commencement address to the graduates and nearly 8,000 relatives and guests expected to attend the ceremony. MIT President Charles M. Vest will deliver the charge to the graduates, and MIT Corporation Chairman Paul E. Gray '54 will preside over the exercises.

Formal commencement activities begin at 9:45 a.m. with the traditional academic procession from 77 Massachusetts Ave. to Killian

Court. Salinas will deliver his address after an invocation by Rabbi Daniel Shevitz and other speakers. Salinas played a key role in formulating the North American Free Trade Agreement linking Mexico, the United States, and Canada.

Following Salinas' speech, Anand Mehta G, outgoing president of the Graduate Student Council, will salute MIT on behalf of the graduate student body. Class of 1993 President Reshma P. Patel '93 will then present the senior class gift to President Vest, who will then give the charge.

Vest will present diplomas to students receiving bachelor of science degrees, some of whom will also receive master of science degrees. Provost Mark S. Wrighton will hand out advanced degrees. Students will approach the stage in two lines, with their names announced in an alternating pattern.

Following the commencement ceremony, Vest will host a reception for graduates, their guests, and members of the 50th reunion Class of 1943 and the 25th reunion Class of 1968 at several locations in or near McDermott Court.

In the event of severe weather, graduating students, faculty, and other participants will attend a ceremony in Rockwell Cage. Because of space limitations, relatives and other guests will not be able to attend this backup program. Closed-circuit television coverage of the ceremony will be available in 10-250, Lobby 7, and other locations. Last year was the first time in 14 years that a commencement ceremony had to be moved indoors due to severe weather.

Students receiving doctoral degrees were hooded yesterday at a special ceremony in Rockwell Cage. Departments and their representatives assisted school deans in hooding the degree recipients.

About 30 graduating cadets and midshipmen in MIT's Army, Air Force, and Navy Reserve Officer Training Corps units will be commissioned on the deck of the USS Constitution at 5 p.m. today. Navy Vice Admiral Richard C. Macke will speak.

Harvard-educated economist

In announcing the selection of Salinas as commencement speaker, Vest said, "As a world leader, and as president of our great neighboring nation to the south, his experiences and views on issues that will be of critical concern to the generation of professionals just beginning their careers are most suitable for this occasion."

The 44-year-old Salinas is currently in the third year of his six-year term. He studied at the National Autonomous University of Mexico before coming to Harvard University, where he received a master's degree in public administration in 1972. He went on to earn a second master's degree and a PhD in political economy and government, in 1974 and 1978, respectively.

Salinas's career as a public servant began in 1974 in the Mexican Secretariat of Finance. He spent five years in various positions there before becoming General Director of Economic and Social Policy at the Programming and Budget Secretariat. He became secretary of that office in 1982.

Security for commencement will be tighter than usual due to Salinas' presence. No access will be allowed to the areas behind and at the sides of the stage in Killian Court. In addition, all windows looking out onto Killian Court must be closed between 9 a.m. and noon. No champagne bottles or other containers will be allowed onstage during commencement.



VIPUL BHUSHAN—THE TECH

Kenneth D. Cameron SM '78, commander of the space shuttle Discovery, presents a Norwegian flag he carried with him into space to the family of Yngve K. Raustein '94, who was murdered last fall. Raustein's parents, Elmer and Inghild, and brother Dan-Jarle attended the presentation and reception on May 11.

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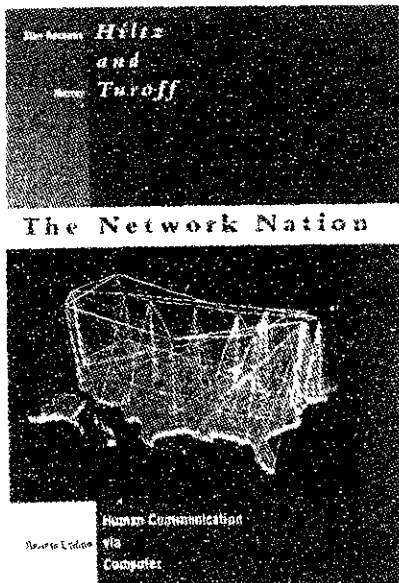
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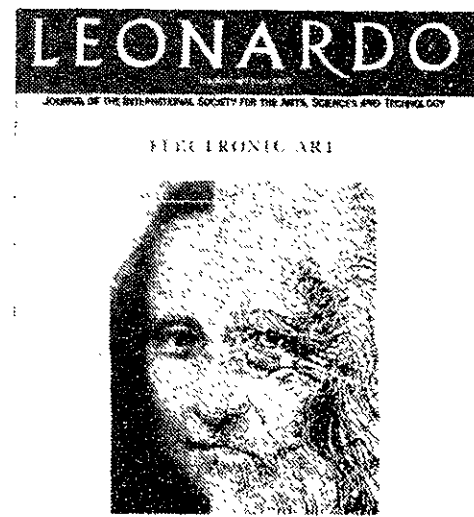


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New Calendar Includes 65-Day Terms, Full IAP

Calendar, from Page 1

teach a class during the semester would allow it to devote more time to IAP, he said.

Faculty members who spoke at the meeting gave the new IAP policy mixed reviews, but the majority seemed to agree with Hale V. Bradt PhD '61, professor of physics.

"I would imagine that focusing on one subject for a month could be one of the most productive, fun times of a career," Bradt said.

Critics of the proposal said that requiring students to pursue intense studies during IAP would greatly increase the pace and pressure of the academic year.

Associate Professor of Hispanic Studies Elizabeth J. Garrells, a member of the Institute Calendar Committee, said, "Students who are in majors with required courses during IAP, one out of their four undergraduate years would have a relentless experience where pace and pressure was exacerbated."

"This is of central importance to the students. Of course, one of the ways you increase pace and pressure is to eliminate those breaks between semesters," Garrells continued. Garrells did not support the revised calendar proposal.

Professor of Electrical Engineering Alvin W. Drake '57 supported the proposal while expressing the concern about the use of IAP. "I think that the free extension of courses into IAP is probably a terrible idea," he said.

The actual motion passed by the faculty made no mention of the use of IAP for required coursework. Instead, approval of courses offered during IAP will be handled by the faculty's IAP Policy Committee and Committee on Curricula.

The chair of the IAP Policy Committee, Professor of Urban Studies and Planning Lawrence Bacow, endorsed the proposal on behalf of the committee. "For a number of years, we have tried to increase the number of credit-bearing

classes during IAP," he said. "We think there are creative ways to use IAP so that it reduces pace and pressure."

Others criticized calendar

A handful of faculty members present spoke against the new calendar.

John V. Guttag, professor of computer science and engineering, speaking for himself and Barbara H. Liskov, professor of computer science and engineering, said, "We disagree with the basic premise that the length of the academic calendar should be increased. We also object to moving work into IAP."

"I'm quite confident that if offered an extra three class days, [professors] will not spread out the material over three more lectures, but increase the amount of material taught. The current calendar is superior even to the [Jaffe calendar]," Guttag said.

Professor of Psychology Steven Pinker said that MIT students already cover substantially more material than students at other institutions. The new calendar "is a significant reduction in the quality of life."

Vernon M. Ingram, professor of biology, offered much broader comment on the problems of the calendar. He congratulated Jaffe for improving the calendar proposal, but expressed concern about "end-of-semester crunch."

"I wonder whether there aren't some other alternative ways of dealing with the end-of-semester crunch within [the Jaffe calendar]. What I'm suggesting is an academic calendar whereby half the large undergraduate classes begin in January and end in April, finals and all, and the other half begin in February and end in May," Ingram said.

"This kind of overlapping scheme, which still requires only one registration day, would go a long way towards eliminating the end-of-semester crunch," Ingram continued. There was no discussion of Ingram's idea at the meeting.

5 Arrested for Computer Theft

Theft, from Page 1

quently arrested the other four," Glavin added.

The student who was arrested at the scene, whose name was not disclosed, was arraigned that night. His hearing will be sometime in late August, Smith said.

"Charges were brought against the other four on Tuesday," Smith added. "I don't know the date for their hearing, but my guess is that it will probably be sometime in late August as well."

The Institute is also considering what action to take against the accused students. MacKenzie, a senior, "will not graduate," Randolph said. "A hearing was made about that a few days ago."

"Institute policy is that if a serious disciplinary matter is under consideration, then a degree will be withheld," Smith added.

A decision on whether the other four students will be allowed to con-

tinue study at MIT will be made after their hearings in court, Randolph said.

Cluster contained Macs, PCs

Anne L. Drazen, director of the Sloan computer facility, refused to describe the security of the cluster or if additional security measures will be taken to secure the computers.

"I really do not want to talk to the press. It would violate the security of my labs if the MIT community found out that my labs exist and what they are about," Drazen said.

Oliver Chow '93, who uses the facility, said, "The computer cluster there has PCs, Macs — Quadras, Classics, IIsi's, Mac II's, IBM PS/2's, and older AT&T machines. There are a lot of computers there, about 30-40 Macs and 20-30 PCs."

"The facility is used by undergraduates and Sloan MBA students. It is accessed by a code that is made known to Sloan people, and the

Sloan building is kept open all night," Chow said. Computers in the cluster are secured down to the desks and "I would say that probably the computers are alarmed — it seems like there is a cord that if you cut it, an alarm would go off," Chow said.

Smith would not discuss whether any of the accused students have previous criminal records. But last November, then-Dean for Residence and Campus Activities James R. Tewhey asked six MacGregor residents to leave the dormitory to prevent the recurrence of a variety of "inappropriate behaviors" including harassment, intimidation, harassing phone calls, and throwing eggs and water balloons. These six students included Council, Ledesma, and Dorton Santiago.

In December, Tewhey ruled that Ledesma and Dorton Santiago must move out of MacGregor. Council was given a warning but was allowed to stay in the dormitory.



An MIT group tests out its two-man human-powered submarine in the Alumni Pool Tuesday. This submarine will be one of about fifty competing to be the fastest, most economical, and most innovative in Fort Lauderdale, Fla., next month.

GRADUATE STUDENT COUNCIL

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Yingying Li

for her continuing efforts on behalf of graduate students.

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Thomas Humphrey, Lecturer

and the students of 1.102, Transportation Laboratory,

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Travis Carpenter
Henning Colzman-Freyberger
Patrick Hylton
Eric Martin
Jimmy Shih
Albert Wong

for their assistance in creating a schedule for *A Safe Ride*.

Operating Gap Predicted to Grow to \$17.85M

By Brian Rosenberg
CONTRIBUTING EDITOR

Despite nearly \$3 million in net budgetary reductions, MIT's expenses for fiscal year 1994 are predicted to outstrip its revenues by nearly \$18 million, Provost Mark S. Wrighton reported in a letter to the community last week.

That prediction comes after several months of intense Institute-wide efforts to reduce the budgetary shortfall, or "operating gap," as it is known. MIT has had a similar gap for several years, and Wrighton has made closing it a high priority.

The predicted \$17.85 million shortfall represents an increase from the projected fiscal year 1993 gap of \$16 million, however. Wrighton explained this increase as "an investment in MIT's future."

"We've made conscious choices that will cost more now, but represent a commitment to larger policy goals," he said in an interview. One

example of this is that MIT gave raises this year. "We want to continue to attract and retain the highest quality people ... and to do that we need to offer competitive salaries," he said.

Wrighton cited several other large, policy-driven expenses, including MIT's commitment to maintaining need-blind admissions and slow growth in tuition, as contributors to the increased deficit. "We've moderated the growth in tuition, which is the one income stream we have direct control over," he said.

The Institute's total operating budget is expected to increase from \$1.11 billion to \$1.13 billion in fiscal year 1994, according to Wrighton's letter.

As part of the effort to reduce the operating gap, expenses in academic areas were cut by about \$1.6 million. Because of indirect cost billing, these cuts result in only a

\$1.2 million net savings. For the same reason, nearly \$4 million in reductions in the support areas result in only \$1.6 million in net savings.

In his letter, Wrighton said described the effect of the reductions in the academic areas as "lost flexibility." Departmental resources allocated to unfilled faculty positions were reduced, and 15 faculty openings were eliminated. No current faculty were affected by these changes, though, and Wrighton stressed that students would not feel the cuts. "Some students may have to plan ahead a bit more to ensure that their classes are available" at the right times, he said.

Eight positions in the library system were eliminated, Wrighton said. Those staff members were offered other positions within the system, he added.

Within the support areas, about 20 people will be laid off during fis-

cal year 1994, which begins July 1, Wrighton said. Though layoffs occur regularly as research grants dry up and projects are completed, Wrighton said these positions are being eliminated as part of the budget-trimming process. "The Institute will aid those individuals affected in finding placement opportunities," he said.

An additional 20 unfilled positions in the support areas will be eliminated. Wrighton stressed that most of the necessary reductions in staffing have been achieved through attrition, however.

A change in the distribution of income from one group of endowment accounts will save an additional \$2 million, Wrighton said. Some of the income from what are known as Pool C accounts will be directed to general Institute funds. Research groups and faculty members holding these accounts will immediately feel this change as reduced buying

power and flexibility.

The Undergraduate Research Opportunities Program will be affected by this change, but Wrighton expressed hope that that this could be turned to the Institute's advantage. "We may be able to focus some of our fundraising efforts by demonstrating a need [in UROP]... it's a high-profile activity," he said.

Wrighton stressed that the Institute still has much to do to eliminate the operating gap. He plans to continue to ask department heads to reduce their budgets by 2 percent each year.

Even these reductions will not be enough to close the gap, however. Other, more specific cuts will also be necessary, he said. Many areas are currently being reviewed by the four budget reduction task forces appointed early this year, including the interdepartmental mail system and MIT publications.

No Blame Laid in Slur Incident

PBE, from Page 1

future." He would not say whether any action would be taken against the fraternity as a whole.

Luan said he hopes any further investigation of the incident is "just and will follow due process."

Smith has also met with the students who filed that complaint. At the May 14 meeting, about 100 students gathered outside Smith's office in a rally organized by the Black Student Union. "The purpose was to make [Smith] aware of the feelings we as black people have in regard to the incident. ... Every black person on this campus was offended by the comments made, and we wanted [Smith] to know that," explained Rondell L. Milton '93, a former co-chair of the BSU.

BSU member Dale L. LeFebvre

'93 said PBE took "more responsibility than was inherent to them as a living group [for the incident]. Since the verdict is that it really happened, they should be sanctioned."

Smith stressed that his handling of the incident is not over. "We're proceeding to try to sort out some of

the larger problems of which this incident is a piece, and that process will continue through the summer and fall," he said.

Milton said the BSU plans to "keep pressure on the administration throughout the summer to see that the whole thing doesn't die."

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THE ARTS

Satisfying *Technique* falls short of excellence

TECHNIQUE 1993

5 pp.

by **Deborah A. Levinson**
ADVISORY BOARD

A successful yearbook provides a unique balance between photography and feature journalism, chronicling the events of the past year with witty phrases and moving images. Posed photos of seniors sporting plastic grins must mesh seamlessly with color shots of the landscape, the classroom, and the lacrosse team.

This year's *Technique* comes close to achieving that balance, but ultimately falls a bit short. Not a lot, mind you — there's more than enough written and pictorial information in the 1993 volume to satisfy — but in enough small and significant ways that, if fixed, could bring it much closer to perfection.

First, let me applaud the long list of things that are right about *Technique*. The first two signatures are printed on a heavy, glossy stock that brings vibrancy to the duotones and four-color photos. *Technique* always cultivates the best photographers on campus, and this year's model is no exception. Page three showcases a moody photograph by Benson Wen '93 of a woman, starkly dressed in black and white, her face half-averted from the camera, her body leaning against the dusty rails of an old iron gate. Matthew D. Barnhart '94 captures eight shadowy birds roosting on an abandoned canoe, stranded mid-water.

The color photos are as well-composed as the black and whites. My favorites are a lush, atmospheric picture of Boston at night by editor Stephen S. Hau '94 — a neon blue and fuchsia sky breathes new life into what is otherwise a standard shot; and a close-up by Michael Mermelstein '94 of autumn leaves bedecked with dew, a single leaf at the center the color of a Red Delicious apple. The photo, run on a full page, would lose its impact at any smaller size.

Curiously, there are no images of MIT in the wintertime within the artsy first two signatures (unless the sun glinting off the Charles River shots on pages 26 and 27 is really icy glare). MIT acquires a certain beauty in the snow — as well as a certain extra gloom in the beige concrete of the formidable main building — and given *Technique's* ability to make shots of the same parts of Boston and campus look different almost every time, they surely could have done the same to the snow.

The first section after the opening signatures is the journal, a timeline stretching from February 1992 to February 1993. The timeline provides just about enough information to

piece together the events of the past year, and black-and-whites fill in the holes. The timeline photos are well-chosen and give a clear summary of 1992, from Toni Morrison's electrifying Abramowitz lecture, to Aerosmith's funding of the Corporal Politics exhibit, to the final, chilling image of a young woman, her back to the camera, walking in the open space between Walker Memorial and Building 14. A copy of *The Tech* bearing the headline "Student Slain on Memorial Drive," with a grim photo of Yngve Raustein '94, tumbles in the wind along the concrete.

The "Life in Hell" section is particularly good this year, and features essays from five students and four professors. Perhaps the most poignant entry is an anonymous two paragraphs about the mixed elation and repulsion felt in receiving a brass rat. "It blows my mind to think I have two years left," writes the author. "I'm half done. I feel so old, yet I'm so young."

This section contains more candids than the earlier part of the book, and scores with Wen's magnified print of a woman's scream, Barnhart's man rubbing George Eastman's nose (does anyone still do that?), and another Wen photo, this one of a woman and her acoustic guitar, closely cropped so that only her torso frames the instrument.

Sports photos, though not my cup of tea, are generally composed well and show lots of action. The activities pictures are more innovative, as in a shot by Ivana Markovic '93 of three jugglers shot from the ground up, and a photo of a rock-climber suspended from an outcrop, shot by POR. (POR's full name does not appear in the credits, but I have my doubts as to his or her existence, given that the photo on the previous page is credited to HRH Grogg, *Technique's* gorilla mascot.)

Now for the criticism, and it is twofold. First, many photos are printed too dark. *Technique* has sacrificed levels of gray in favor of high contrast, but even the best-composed photo won't survive if too much of it is black, and not enough white.

Second, photos, like fine wines, need to breathe. I understand that *Technique* has literally thousands of photos from which to choose, but better to let a few good ones slip than to crowd too many too close. Why four photos butting together over the page 26-27 spread, with the Technicolor oranges of page 26 forced to battle the brilliant yellow and blue of page 27? Another spread, pages 22 and 23, shows that a one-pica (1/6 of an inch) border is simply inadequate between photos of this size and quality. With only a two-pica gutter running between the pages, the photos

slide into the black hole of the binding. It's a picky point, but an important one given that *Technique* is meant not just as a record of 1992, but also as a work of art.

As yearbooks go, *Technique* has always

provided an exemplary level of photography, news, and design. The 1993 edition carries on this grand tradition; it is a little blemished, but in the end, shines as clearly as the chapel moat on a summer day.



STEPHEN S. HAU—TECHNIQUE

Sunlight streams through the "stained glass" window of Lobby 7's Cathedral of Our Lady the All-Night Tool. The hack appeared in Lobby 7 on Halloween, and hosted a real wedding at 12:01 am on the morning of November 1.



YUEH Z. LEE—THE TECH

Muses Jeannie Tian '96, Annlisa Wiegel '94, and Marianne Larios '94 perform Simon and Garfunkel's "Cecilia" on May 8 before a packed 6-120. This was the Muses' last concert of the term.

Symphony achieves new heights

MIT SYMPHONY ORCHESTRA

Conducted by David Epstein.
Works by Hindemith, Copland, and Brahms.
Kresge Auditorium.
May 8.

By Jonathan Richmond
ADVISORY BOARD

The MIT Symphony Orchestra has never sounded better. This wasn't just as good as an average night at the BSO. This was as powerfully engaging and enlightening as a professional orchestra at its best.

Hindemith's music is not easy to play. But David Epstein got the complex textures of *Three Pieces for String Orchestra* from Op. 44 just right. There's a penetratingly pure string sound at the heart of this music, and it came through disarmingly. If the first piece was doleful, the second was darker yet, with excellent, disciplined bowing powerfully pro-

Symphony, Page 13

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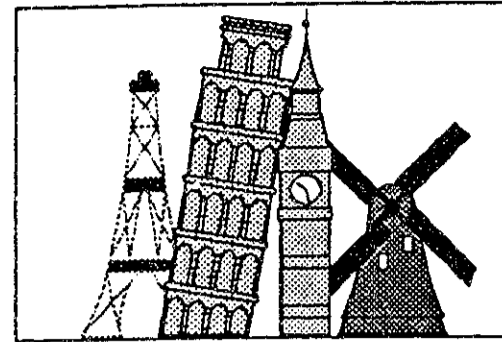
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City Days: A Two-Way Street

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Jee Ahn '93 and Professor Frank Levy
for their IAP experiential seminar "Doing Science/Math With City Kids"

Paula Lee '93, Professor Ole S. Madsen, and Courses 1E and 1C
for their involvement in LINKS: Environmental Science

David Harris '94, the Educational Studies Program, and all the volunteers
involved in MIT Science Day

We would also like to congratulate the PSC Summer Fellows
Anup Bagaria '94
Ross Crowley '95
Bryn Mowry '95

The fellows will be engaged in intensive work with the Science Coordinator and the Coordinator of Educational Technology of the Cambridge School Department throughout the summer.

The year-long *City Days* program is sponsored and supported by: • The MIT Public Service Center • The Lord Foundation • Undergraduate Academic Affairs Office • the Cambridge Public Schools • Office of Community Relations • the Athletic Department • Departments of Political Science, Urban Studies and Planning, Civil and Environmental Engineering, and Architecture • members of the MIT Council on Primary and Secondary Education •

Ambitious program strains Concert Choir to its limits

MIT CONCERT CHOIR

Conducted by John Oliver.
Program of works by Bright Sheng, Norman Dello Joio, and Stravinsky.
Kresge Auditorium.
May 5.

By Jonathan Richmond
ADVISORY BOARD

The music's atonal, so if it sounds good we're doing something wrong," said a member of the concert choir of Wednesday's program in Kresge Auditorium. I beg to differ: there was some wonderfully evocative music on offer. A more salient complaint was that the music was too hard. True, it was hard, and the concert choir did at times sound under strain. Many of those who initially joined the choir to participate in this performance dropped out, finding the task of attacking music of such complexity too much for them to take. Under the illumination of John Oliver's tutelage this repertory must have nonetheless made for a rich learning experience, even if the end result was less than professional.

Bright Sheng's *Two Folk Songs from Chinhai* simply didn't make it. This piece received the least rehearsal time, and it showed. The music sounded as if it could be wonderfully characterful if done properly, but the diffused sounds of confusion emanating from the stage suggested that as far as the concert choir was concerned, they might as well have been singing in Chinese.

In fact, they were singing in Chinese, and perhaps having them attempt to master both Chinese and Russian for one program was unrealistic.

Proud Music of the Storm by Norman Dello Joio fared better. For one thing, it was

done in collaboration with the brass ensemble, and they were in splendid form. Brass crescendos were nicely shaped, powerfully projected, and deeply penetrating. In addition to agile, colorful playing on brass, organist Susan Armstrong played with much spirit. The concert choir had its moments in this evocation of the storm, its wild qualities emerging from the singing. For too much of the piece, however, they sounded oppressed by the sheer difficulty of their music.

This problem continued into Stravinsky's *Les Noces*, but there were sufficient good points to this performance to make it of interest. Soprano Margaret O'Keefe was terrific, and mezzo Mary Westbrook-Geha's dark-toned voice lent spirit to the performance. The strong solo performances seemed to help the women choristers come together, and they came together in harmony. The women choir members sang with lyricism and captured many elements of the spirit of the piece. Many of the interchanges between women soloists and choristers were very successful, too.

Before complaining about the men, it would be fair to point out that their task was less glamorous and — some would say — more difficult. The women got all the best tunes, while the men played more of a *continuo* role, and a horribly tough one, too. This said, the men did sound on the sludgy side and, while soloist Richard Clement did add color, baritone Mark Aliapoulos did at times sound on the sleepy side, as did the male members of the Concert Choir as a whole. One can only admire the audacity of John Oliver for dragging his concert choir across such perilous territory, but suggest that next time round he might select at least one piece on the program pitched at his singers' ability range, so as to enable them to shine.

MIT Symphony concludes year with graceful triumph

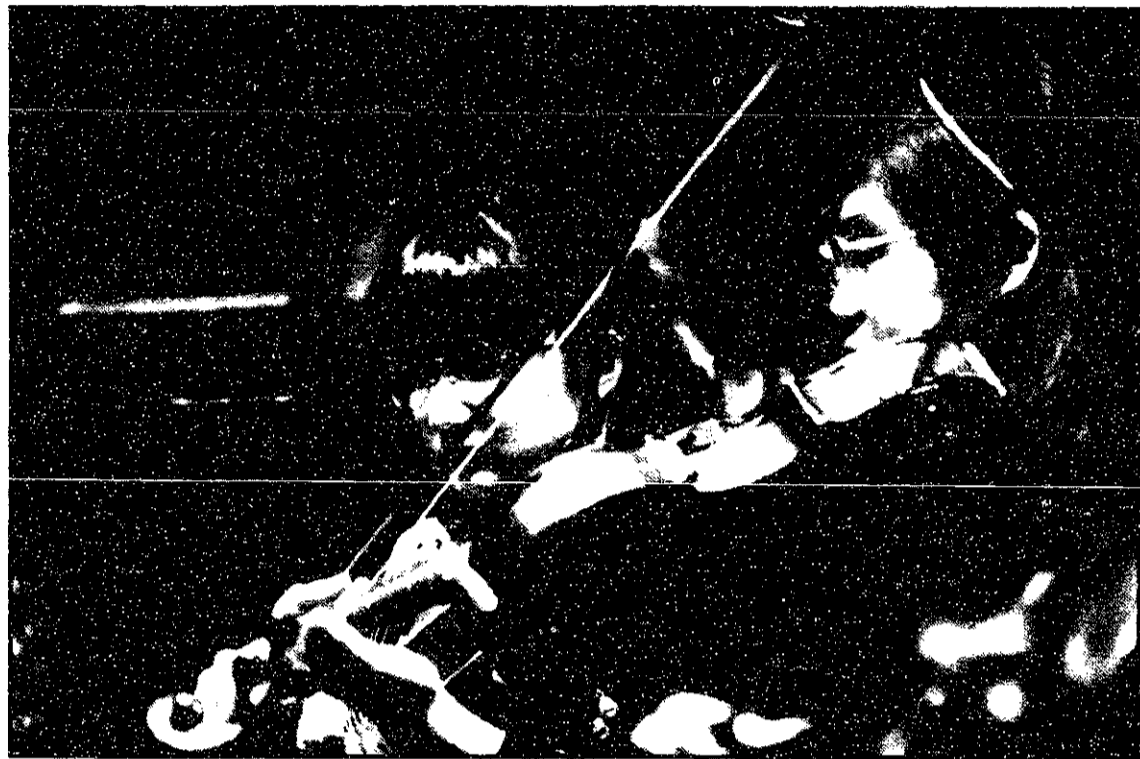
Symphony, from Page 11

ducing a plethora of subtle effects. There were some minute problems holding everything together at the opening of the third piece, but they were quickly dispelled, leading to a resplendent conclusion.

What a splendid contrast to go from Hindemith to Bernstein — and dance episodes — from *On The Town* at that. Epstein's band packed a good rhythm, with lots of color and oomph from the brass, humor circulating among the winds, and smiles to be had two-apenny from each and every string. This was Bernstein to a tee — every second suave, pol-

ished, yet carefree and wholly delectable.

The flowing, lyrical delivery of the opening of Brahms' *Symphony No. 4* spoke of more good things to come. The clarity of playing was at its most valuable here, the climactic ending of the first movement extraordinary and gripping. From the gently flows of the *Andante moderato* through the splendor of the *Allegro giocoso* (marred just a tad by a few brief moments where some players ran ahead of the pack) to the excitement of the conclusion, this was a performance of illumination and depth. And this was an evening to remember, displaying MIT at its creative best.



The MIT Symphony Orchestra performed at Kresge Auditorium on May 8.

JOSH HARTMANN—THE TECH

The Tech congratulates
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Karen Kaplan

Sarah Wheeler

*Thanks for all of your help,
and good luck in your future endeavors.*

MIT to Develop HDTV Standard with Design Rivals

HDTV, from Page 1

have withstood years of rigorous testing. The FCC encouraged the designers of these systems to cooperate on developing one standard that would incorporate the best features of all four, said Jae S. Lim '74, a professor of electrical engineering and computer science who heads the MIT research group that developed one HDTV system.

In addition to MIT, the finalists included proposals made by General Instrument Corporation; Zenith Electronics and the American Telephone and Telegraph Company; and the Advanced Television Research Consortium, which includes companies such as Philips Electronics, Thomson Consumer Electronics, NBC and the David Sarnoff Research Center.

"By working together, we're combining the best components of all the systems," Lim said. "I think

we will have a better system than any one single system. If we had continued on the path of competition, there would have been a significant delay" in bringing the technology to the market, Lim said.

Federal regulators, who had encouraged but not forced the alliance, also hailed the decision to cooperate on the system's design, saying the agreement eliminated technical disagreements and legal wrangling that could potentially have lasted for years. Now, high definition television could be widely available as early as 1995.

In all four of the final proposals, television signals are transmitted in the same digital language used by computers. This allows for crisper pictures than today's televisions, which use the less precise technique of transmitting signals through electromagnetic waves that are analogous to light and sound waves. In addition to increased picture clarity,

HDTV's advantages include smoother motion, a better aspect ratio, and a sound system of compact disc quality.

The incorporation of digital technology also means that high definition television will be able to interact with computers to provide a variety of services.

Scanning format disputed

Most aspects of the final design have been agreed upon, but one technical disagreement has surfaced regarding scanning format, Lim said. There are two ways to scan a picture. The "progressive" scanning technique uses an electron gun to scan each row of pixels on the television screen from top to bottom 60 times each second. The "interlaced" scanning method scans all odd-numbered rows and then completes the picture by scanning the even-numbered rows, repeating this process 30 times each second. The inter-

laced method is used in traditional television sets to insure uniform picture brightness, but Lim says it is an outdated method for insuring picture quality.

The four research groups have agreed to use six scanning formats, five of which were proposed by MIT and utilize a progressive technique. The sixth format is based on interlaced scanning technology, and MIT objects to it.

"Interlaced scan transmission is based on the old way of doing things, and really has no place in the new television system standard," Lim said. "MIT will continue to work towards the elimination of that scanning format," which he says is responsible for the bulk of the system's technical problems.

The six proposed formats are of varying levels of quality, allowing some programs, such as television movies, to be broadcast with the highest resolution, while other pro-

grams, such as afternoon reruns, could use a lower quality format at less cost to the broadcaster.

Lim suspects that the interlaced format was included in the proposal because "television manufacturers, like Philips and Thomson, have invested a great deal of money in the technology for that kind of format. That's in the interest of those companies. We are interested in the nation's interests, and that sixth transmission format has got to go."

In all written agreements on the matter, MIT scientists have included a footnote expressing their objection to the interlaced format. Lim predicted that even if the interlaced format were included in the final system proposal to the FCC, it would be eliminated by federal regulators. "My guess is that when the FCC looks at it from our country's national interest point of view, the

HDTV, Page 15

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MIT Optimistic About Appeal of Overlap Group Antitrust Suit

Overlap, from Page 7

one Overlap school.

"The Justice Department view of higher education as an industry conspiring to offer discounts to unmeritorious students is simply wrong," Vest said this week. "We are disbursing charitable funds to assist the students who most need financial help. All of our students are meritorious."

Michael Gass, an attorney with Palmer and Dodge, the Boston law firm representing MIT, estimated that a decision on the appeal would be announced this September.

David Seidman, who is representing the government in the appeal, refused to comment on the case. Spokesmen from the Justice Department did not return repeated phone calls.

Better chance in higher courts

Gass said MIT's prospects will improve as the case moves to higher

HDTV Money May Help Lower Tuition

HDTV, from Page 7

decision will be obvious," he said.

Because of the work done in Lim's television research laboratory, MIT will receive a portion of the overall royalties stemming from HDTV. The value of those royalties is highly speculative, since it is difficult to predict how many high definition televisions will be sold, Lim said. However, he estimated that as a result, "students' tuition might go down by \$50 for some number of years."

courts. "We're optimistic. The higher up we go, the more optimistic we get," he said.

Vest agreed: "I am optimistic that we ultimately will prevail in this case. The higher one goes in the appellate process, the more likely the court is to examine the social policy implications of the case."

Gass said Bechtle applied standard antitrust principles to this case without addressing the larger question of whether those laws were applicable to financial aid transactions. In contrast, appellate court judges are more willing to "really roll up their sleeves and dig into what the real purpose of the statute is," and this should be to MIT's advantage, he said.

Three briefs were filed on MIT's behalf for the appeal, Gass said. One is signed by the American Council on Education, the American Negro College Fund, and other educational groups. Another was filed by a number of minority associations, and supports the Overlap Group meetings because they allow colleges to remain accessible to underprivileged students.

A third brief was filed by a group of charitable foundations headed by members of the Rockefeller family, which might be subject to antitrust laws if the appellate court upholds Bechtle's decision. "The theme of that brief is in trying to apply the Sherman Act to [financial aid], the government is really misconstruing the function of educational institutions in society," Gass said.

No independent briefs were filed on behalf of the Justice Department.

If MIT loses this appeal, Vest said he would definitely consider appealing again to the Supreme Court. "It is very important to stand up for the principles and implementation of need-based financial aid and the independence of universities

from unreasonable government interference," he said.

Vest said the legal costs of the suit have been "substantial," but did not give a specific figure.

Suit is now two years old

The suit was announced in May 1991 by then-Attorney General Richard Thornburgh and originally included the eight Ivy League schools as well as MIT. The Ivy League schools signed a consent decree, agreeing not to continue Overlap meetings but admitting no liability. MIT refused to settle and was the only defendant in last year's trial.

"The issues in the appeal will be the same issues that have been alive in this case since the beginning — that is, whether the Sherman Act, a

statute which was designed to regulate commercial activity driven by profit motives, can be applied to essentially charitable activities, like deciding how much charity money to allocate to students based on need," Gass said.

Normally, each side has 15 minutes to argue its case in an appeal, but MIT's lawyers have requested 30 minutes for each side to allow for a more complete hearing of all the issues in the case. Lawyers for the government have backed this proposal, but the court has not decided whether to accept it.

In the trial, Bechtle ruled that the Overlap Group's financial aid decisions constituted price-fixing and were therefore illegal, regardless of whether they raised prices for students or increased revenues for

MIT.

"Few aspects of higher education are more commercial than the price charged to students," Bechtle wrote in a 49-page decision. The Overlap Group meetings "interfered with the natural functioning of the marketplace by eliminating students' ability to consider price differences when choosing a school," and the economic impact on students was "not germane to the resolution of this case," he wrote.

In the trial, MIT's lawyers argued that Overlap meetings allowed member schools to maintain need-blind admissions. Without an agreement not to offer merit-based scholarships, schools would engage in bidding wars over particular students, leaving less money available for students with demon-

980 Accept Admission to Class of 1997; Financial Aid Keeps 100 Others Waiting

By Eva Moy
NEWS EDITOR

Four weeks after the deadline for accepting or declining admission to MIT, 980 of the 2,120 students admitted to the Class of 1997 have decided to enroll here in the fall. Another 100 students are expected to accept offers of admission to MIT. Most of the delay in these students' decisions is due to financial considerations facing the incoming freshmen.

"The main thing affecting admissions at MIT is the combination of a continuing poor economy and a declining interest in engineering as a career," said Director of Admissions Michael C. Behnke. The decline in interest was reflected in the nationwide pre-Scholastic Aptitude Test questionnaires administered to the incoming Class of 1997, he said.

Although the percentage of admitted students eligible for aid remained about the same, there was "an incredible increase in the number of appeals" to the financial aid packages MIT offered, according to Stanley G. Hudson, director of student financial aid.

Hudson added that the average need of students was about 6 percent higher than last year. But this was on par with the targeted increase, based on inflation and MIT's budget deficit.

Hudson said that although MIT is "committed to meeting the full needs of the class, "it is still difficult for the Institute to compete against other top schools which may offer merit scholarships. "It's a heavier decision for students to make," he said.

Although the deadline for accepting or declining admission to MIT was May 1, 45 admitted students have been given extensions until their financial aid packages are settled, Behnke said. Extensions were given to

Admission, Page 16

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GSC Elects Brown, Gittins to President, VP Positions



incoming GSC Treasurer Brett D. Granger G, President Caryl B. Brown G, Vice President Christopher M. Gittins G, and Secretary John F. Olson G

By Vipul Bhushan
NIGHT EDITOR

The Graduate Student Council elected new officers at its April and May meetings. President Caryl B. Brown G, Vice President Christopher M. Gittins G, Secretary John F. Olson G, and Treasurer Brett D. Granger G will lead next year's council.

All the officers but Granger were elected unanimously by the council on April 15. A treasurer could not be elected at that time because no one had been nominated for the position. Granger was elected treasurer on May 11. He, Gittins, and Olson took office at that time. Brown will assume office today because he has been out of town. Outgoing President Anand Mehta G has continued in that position in Brown's absence.

GSC officers are elected to one-

year terms by the council, which is made up of departmental, living group, and at-large representatives. Each department is represented by one member for every one hundred graduate students, with a minimum of two and a maximum of five representatives per department. Each living group selects one representative, and there are five positions held at-large.

The GSC also maintains several committees whose members are not necessarily council representatives and fills graduate student appointments to Institute committees.

New officers look ahead

Brown hopes to involve more people in student government next year. He also hopes the GSC will "continue to be a strong advocate for graduate students, not only for special interest groups."

An important role for the GSC is to "create a community" where students can work, said Gittins. "People are here to do research, [and they] should be able to do that without interference." He said this should be done through a code of conduct which reflects a "basic concern for others." He advocated "more open" policies and procedures and avoiding giving power to "pockets of people... who will scrap with others." He hoped to avoid the "unnecessarily adversarial" attitude which he said had plagued the GSC in previous years. Gittins wanted to be open to all concerns and invited students to bring their concerns to the GSC.

Mehta reflects on past year

Mehta expressed satisfaction with his term of office and cited effective work with the administra-

tion on issues such as campus safety as his foremost achievement. The council has also made a push toward greater exposure to its constituents by offering more activities and services to benefit graduate students, he said.

He also said that though graduate students are more departmentally focused than undergraduates, there were nevertheless issues common to all of them which the GSC could emphasize.

Graduate students are underserved by the administration in comparison to undergraduates, said Mehta, but the GSC has "made the administration realize that graduate students' needs need to be addressed." He recalled that the recently approved change to the Institute calendar was first proposed in the Committee on Undergraduate Policy and the GSC only found out about it through the Undergraduate Association. He quoted Robert J. Silbey, chairman of the Institute Calendar Committee, as saying "we didn't worry about graduate students... we didn't even think about them," when formulating the changes.

The "mark of Anand's tenure" has been laying the groundwork for the establishment of an effective student lobbying group, said Gittins, who is the outgoing secretary. He said the most pressing need was to get more students involved, and the council's success in doing this will be the way to judge next year's GSC leadership. He observed that only a small number of the Council's seats are filled and some departments are not even represented. Gittins also stressed the importance of maintaining graduate student representation on Institute committees.

SAT Math Scores Up for Class of 1997

Admission, from Page 15

students in the middle of financial aid appeals and to students who experienced delays in obtaining additional documentation.

Although these students' decisions will be coming in within the next few weeks, the financial aid office will not run its final data analysis until after Registration Day in the fall, Hudson added.

Class demographics within norm

Despite an incomplete class, the College Board test score statistics

and demographics of the incoming class have already taken shape. The addition of another 100 students will not greatly affect the current calculations, according to Behnke.

The average Scholastic Aptitude Test Math score increased from last year's 738 out of 800 to 742 for the incoming class. The SAT Verbal average fell from 624 out of 800 to 617. The average of both Math Achievement test scores was 750 out of 800, down from 752 last year.

Among students whose high schools provided a class ranking, 32 percent ranked number one, down

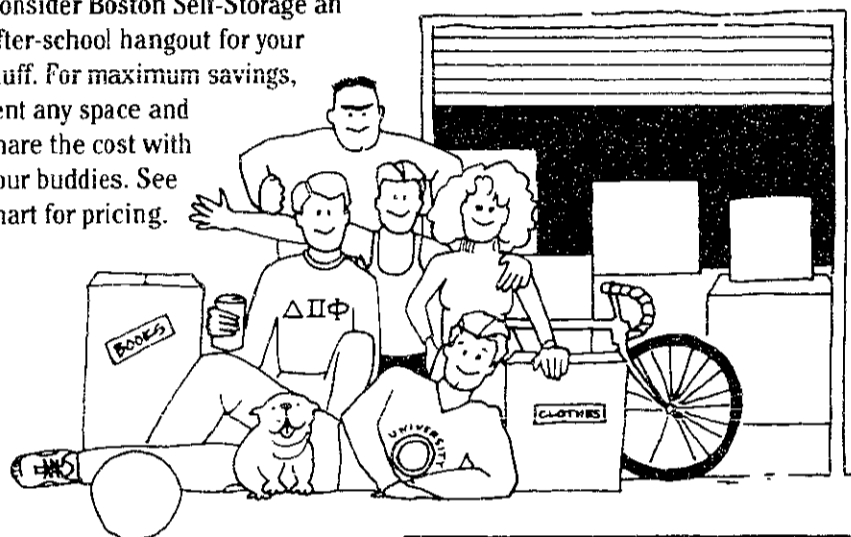
from 35 percent. Fully 88 percent of the Class of 1997 ranked within the top 5 percent.

The proportion of females fell slightly, from 37 percent to 36 percent. The class is broken by race as follows: one percent Native American, two percent Puerto Rican, five percent African-American, six percent Mexican-American, two percent of other Spanish descent, thirty percent Asian, and 45 percent white or no-entry. Also, eight percent will be international students, whose race is not reported.

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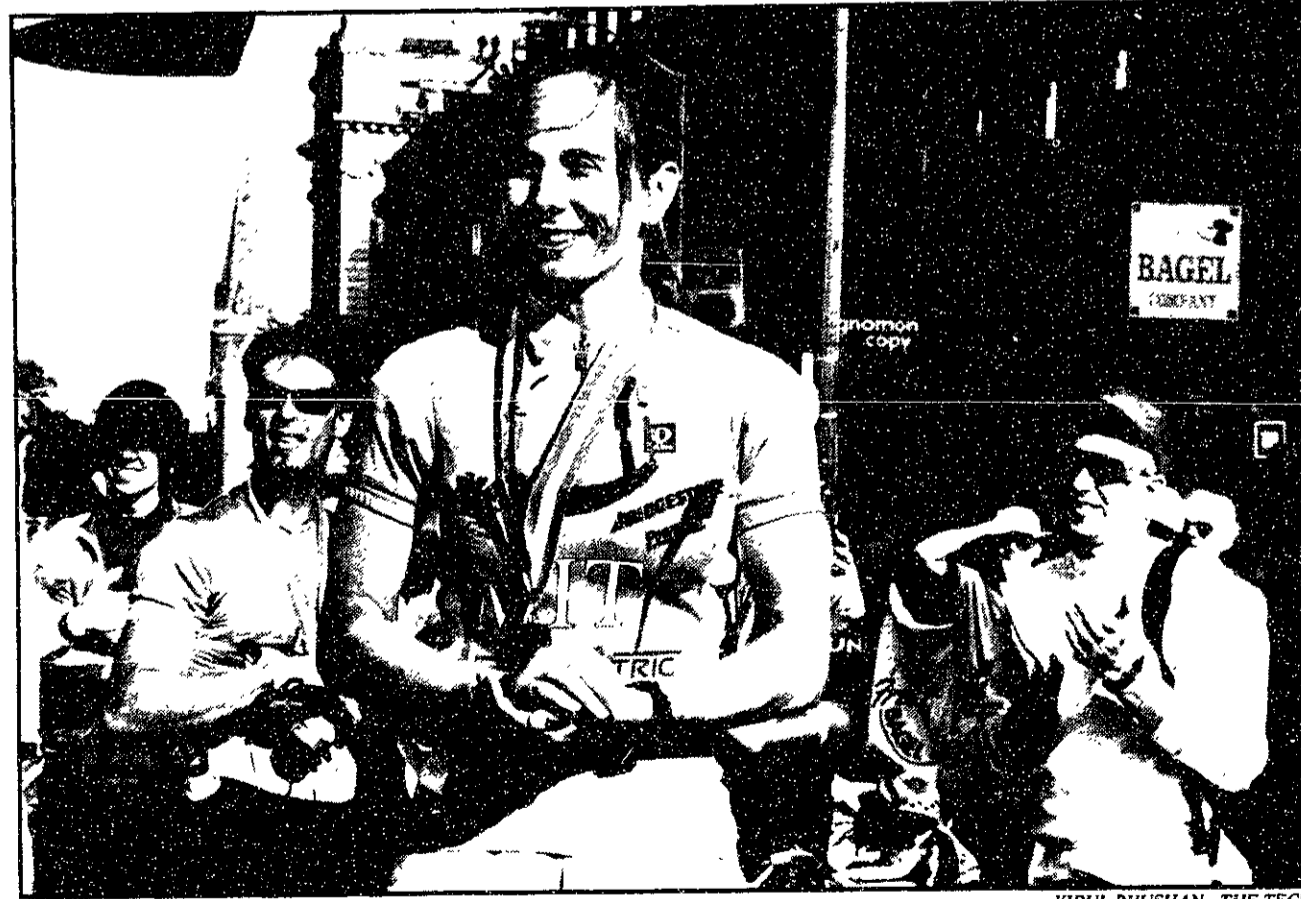
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Cyclist Kijrste Carlson PhD '93 is the Toscanini's Athlete of the Week. See story, page 17, and related cycling story, page 20.

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Three Water Polo Players Are All-Americans

By Roger Crosley
DIRECTOR OF SPORTS INFORMATION

Three MIT water polo players have been named to the American Water Polo Coaches Association All-America Team as honorable mentions. Jim Lee '93, Chad Gunlaugsson '93, and Greg Shank '94 were all chosen.

NEW8 All-Conference Teams

Two more athletes have been named to the New England Women's 8 (NEW8) All-Conference teams. Susie Ward G was chosen from the lacrosse team. Ward, a co-captain, played center and tallied nine goals and eight assists in NEW8 play. Softball player Coleen Kaiser '94 was also selected. She was the team's top pitcher (1.75 earned run average) and leading hitter (.333) in conference play.

Women's tennis

The MIT women's tennis team finished in eleventh place in last week's NCAA Division III National Championships at Carleton College in Minnesota. The Engineers lost a

first round match to the University of California at San Diego 0-9, and then were beaten in their next match 3-6 by St. Thomas college. The women rallied in their final match to defeat Smith College 6-3 and end the season with a 14-7 record.

Men's tennis

MIT tennis players Alan Walpole '93 and Jay Muelhoefer '94 returned from the recent National Collegiate Athletic Association Division III Championships after receiving All-America recognition for their play. Walpole and Muelhoefer advanced to the semifinal round of the tournament, where they lost to a tandem from Claremont College by a score of 6-3, 6-4. The Claremont team was seeded third in the tournament, while Walpole and Muelhoefer had been the top seed.

Fencing

Three MIT fencers have qualified to fence in the U.S. Fencing Association's National Championships. Held in Fort Myers, Florida, in June, the championships will feature the talents of the U.S. Olympic team, which competed in Barcelona last summer. MIT varsity

member Keith H. Lichten '95, team captain Mark P. Hurst '94, and team alumnus Joseph Harrington G will present a threat to the Olympic powerhouses in the Division I competition. Epeeist Lichten qualified for nationals by winning a silver medal at the 1993 Junior Olympics. Hurst and Harrington qualified at the North Atlantic Sectional Championships on May 8th and 9th; Hurst won the sabre event and Harrington placed fourth in the epee. Hurst and Lichten look forward to returning to the MIT fencing room next fall to lead the team to its best year in recent history.

Baseball

MIT baseball coach Fran O'Brien has been named the New England Intercollegiate Baseball Association Division III Coach of the Year. O'Brien, in his 25th season, led the Engineers to a best-ever 22-11 record. By being selected, O'Brien will coach in the New England Collegiate All-Star game, to be held Monday June 7 at Fenway Park. Peter Hinteregger '93 and Ian Somerville '93 were each named to the All-New England team. Hinteregger, a second team selection,

sported an 8-2 record as MIT's top pitcher, while Somerville was the team's leading hitter, with a .375 average. MIT is also well represented on the Constitution Athletic Conference (CAC) 1993 All-Conference Team. Hinteregger, Somerville, and Jeff Olsen '94 were first team selections, and first baseman Brian Christensen '94 was named to the second team. Olsen played centerfield and hit .414 in conference play. Christensen hit .346 in the conference.

Sailing

The MIT sailing teams enter the spring 1993 national championships by being nationally ranked by Sailing World magazine. The women's squad is the sixth ranked team in the country, while the men's team has earned a ranking of 19.

Women's track and field

MIT women's track and field weight throwers Jenn Boyle '96 and Kristin Ratliff '95 each set Institute records in the recently completed Eastern College Athletic Conference Division III Championships. Boyle won the shot put with a throw of 37 feet. Ratliff placed fourth in that event, but earned a third place finish

and set an MIT record in the discus with a throw of 127 feet 7 inches.

Softball

MIT softball centerfielder Jen McMurray '93 has been named to the GTE College Sports Information Directors of America Academic All-District second team. McMurray hit .355 for the Engineers and is a materials science and engineering major.

Crew

MIT Director of Crew Stu Schmill has been named as coach of the United States entry in the 14th Maccabiah Games, to be held July 7-9 on the Sea of Galilee in Israel.

Men's track and field

Three MIT track and field athletes have qualified for the NCAA Division III championships, which will be held beginning Wednesday at Baldwin-Wallace College. Mike Piepergerdes '93 will compete in the 1500 meter run, while teammates Matt Robinson '94 and John Wallberg '96 will be among the entrants in the field events. Robinson will compete in the pole vault and Wallberg will compete in the hammer throw.

Tennis Takes Several Awards; Trantum Top Athlete

Awards, from Page 20

Division III's top ranked doubles team after winning the Rolex Division III National Championship in the fall.

Walpole's teammate Manish Bhatia '93 was awarded the Admiral Edward L. Cochrane Award as the male senior who has shown the highest qualities of humility, leadership, and inspiration in intercollegiate athletics. In his four-year career, Bhatia never played lower than #2 singles and was a New England champion in both singles and doubles. He earned All-America status in 1992. Men's varsity tennis coach Jeff Hamilton says of Bhatia, "Despite all of his awards, Manish remains focused on the team's performance and accomplishments. He clearly places the team's welfare above his own. He is blessed with leadership skills and shares his talents unreservedly with his teammates."

Not to be outdone by the men, Seema Jayachandran '93 of the women's tennis team won the female version of the Malcom Kispert Award as the top female senior scholar/athlete. Jayachandran, who is majoring in electrical engineering, compiled a perfect 5.0 grade point average while earning four letters as a member of the women's team. She and her doubles partner reached the semifinals of the New England Division III Championships this season. Jayachandran, who was named an Intercollegiate Tennis Association Scholar/Athlete, is the winner of a Marshall Scholarship and will study in Oxford, England this fall.

For the first time in the history of the award, the male winner of the Kispert Award also has a perfect 5.0. Electrical engineering major Roddy Trantum '93 is the top wide receiver in the history of MIT football. He holds nearly every Institute pass receiving record and is the first Engineer to be named to the Eastern College Athletic Conference All-Star team. Trantum's awards include a National Football Foundation and Hall of Fame Scholar Athlete Award and an NCAA Postgraduate Scholarship. In June he will enter the MIT Leaders for Manufacturing program.

Gymnast Julie Lyren '93 was the winner of the Betsy Schumacker Award, given to a female undergraduate for excellence in intercollegiate athletics. Lyren broke Institute records in the all-around and the balance beam and has tied the MIT record in the floor exercise. Twice during the 1993 season,

Lyren was named the Eastern College Athletic Conference (ECAC) Division III Gymnast of the Week and she is the first MIT women's gymnast to ever qualify for the Division II national championship.

Lyren capped her career by being named the National Collegiate Gymnastics Association Outstanding Senior Gymnast after earning two All-America citations in this year's Division III national championships. Lyren has also been selected as the Division III Honda Award nominee in gymnastics. She will compete with ten other Division III women's athletes for the award, given to the outstanding collegiate women's athlete in the country.

The Pewter Bowl Award is given to the female senior who has shown the highest qualities of inspiration and leadership in contributing to women's athletics. Skier Kate Bergeron '93 and sailor Paula Lewin '93 were named co-winners.

Bergeron is a four-year most valuable player on the women's team and a three-time captain. Coach Dave Michael says about his nordic star, "Her attitudes toward the sport are exemplary, and her leadership has affected not only her teammates but also most rival competitors." A four-time All-East selection by the Eastern Intercollegiate Ski Association, Bergeron was the EISA's Division II champion in both classical and freestyle cross country events in 1992 and 1993.

Lewin is a world class sailor, having competed for her native Bermuda in the women's single-handed class in both the Pan Am Games in Cuba and in the Barcelona Olympics. She was the captain of the 1992-93 women's team and also

competed with the co-educational varsity squad. She has won numerous championships and has been named one of the top ten collegiate skippers in the country and the co-skipper of the year in New England.

The Varsity Club Awards, to the outstanding freshmen athletes of the year, went to two men and a woman. Kamilah Alexander '96 of the women's volleyball team became a major force in New England in only her first year. Alexander led the Engineers in kills, hitting percentage, and blocks. She was a New England Women's 8 Conference all-star and Rookie of the Year. She also earned first team All-New England honors and was named the New England Volleyball Coaches Rookie of the Year after ending the season as the top blocker in the region.

John Wallberg '96 is a three-sport athlete who has put his name all over the MIT record books. Wallberg broke 23-year-old freshman records in the 35 lbs. weight throw indoors and in the hammer throw outdoors. He was the leading scorer on the outdoor squad. Wallberg was also a starting defensive lineman on the football team.

Keith Whalen '96 is the leading freshman scorer in the 93-year his-

tory of MIT men's basketball. Whalen, a center, poured in 389 points in a season in which he was named ECAC Division III Rookie of the Week, selected to the ECAC Weekly Honor Roll, earned three Constitution Athletic Conference (CAC) player of the week citations, selected to the CAC first team All-Conference squad, and named the team most valuable player.

For the second consecutive year, David Steel G of the men's basketball team was awarded the Burton R. Anderson Award as the intercollegiate manager of the year. Head coach Leo Osgood says, "David was the student leader who held our team together behind the scenes during a very difficult year. David has been an advisor, confidant, tutor and friend to all the players in the program. He has truly become an integral member of the men's basketball family and an outstanding manager."

The Straight "T" award is the highest award given for athletic performance at MIT. Criteria for the award vary by individual sport, and this year 14 athletes earned the Straight "T". The winners are: James Bandy '93, swimming; Kathleen Bergeron '93, skiing; Manish Bhatia '93, tennis; Chad Gunlaugs-

son '93, swimming; Thomas Kleemas '93, volleyball; Julie Lyren '93, gymnastics; Brian Meade '93, swimming; Jay Muelhoefer '94, tennis; Sara Ontiveros '93, fencing; Michael Piepergerdes '93, indoor track & field; Matthew Robinson '94, indoor track & field, outdoor track & field; Robert Rockwell '93, swimming; Matthew Trevithick G, squash; Alan Walpole '93, tennis.

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Toscanini's Athlete of the Week

The final Athlete of the Week award this year goes to MIT women's cyclist Kjerste Carlson PhD '93, who finished third place overall in the National Collegiate Cycling Championships held this past weekend in Cambridge. Two days after successfully defending her thesis, Carlson led the MIT women's team to its best performance ever. The cycling goddess will receive a free Toscanini's banana split in recognition of her efforts.

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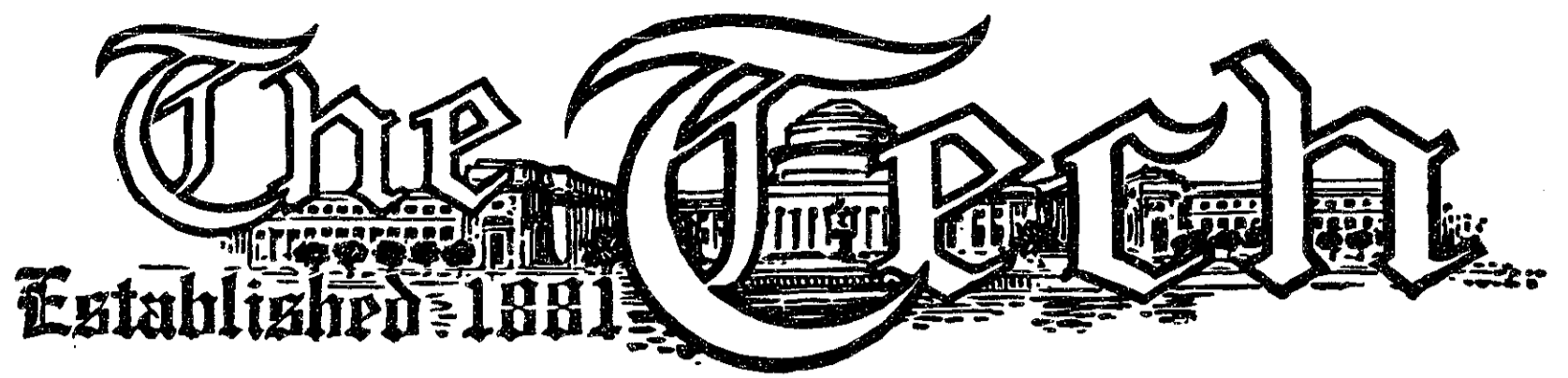
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CONGRATULATIONS

Bhushan Predicts Canadien Victory

Column by Vipul Bhushan
NIGHT EDITOR

The Montreal Canadiens are poised to win the Stanley Cup after edging out the New York Islanders in Game Five of the Wales Conference finals to win the series 4-1. They now have a full week's rest before having to play for the Stanley Cup against either the Toronto Maple Leafs or the Los Angeles Kings, who are playing with fragments of the 1980s Edmonton Oiler All-Star powerhouse and whose greatest score was buying The Great One (with the help of lots of dough and a local buxom playmate).

The team that's won more Cups than any other in the league is on fire after sweeping aside the Buffalo Sabres, beating the Quebec Nordiques in six games, and losing only once in the best-of-seven series against the Islanders. The Islanders have obviously taken a plunge since the Mike Bossy glory days, but have still done better than most would have believed after the loss of Pierre Turgeon. Some isolated pockets of local wisdom held high hopes for the likes of the Pittsburgh Penguins, but these predictions fell by the wayside as the Canadiens rose from a less than impressive season to win the Wales trophy.

Unlike Montreal's smooth ascent to the Wales throne, both Campbell Conference contenders have had tough roads to the final, and now they are engaged in a cross-continental duel that may well go a full seven games. Toronto has the better team, with

top playoff scorer Doug Gilmour outperforming the Kings' Wayne Gretzky by two points in the playoffs. It'll be tough for a while, since the Kings' aren't the obscure novelty they once were, but look for the Maple Leafs to squeeze by and return to Stanley Cup contention after a 26-year absence.

The Leafs have the advantage, and the season's final contests in this Canadian sport and national pastime may well be fought by the rivals of old, pitting fans in English and French Canada's biggest cities against each other as their favorites again vie for hockey supremacy. This is one battle the Habs can count on winning.

Of course, talent also has something to do with this prediction. Canadiens goalie Patrick Roy is playing very well, arguably better than when he won the Conn Smythe trophy in 1986. Offensively, Brian Belows, Vincent Damphousse, and Kirk Muller are a real threat, more so than the lead forwards of either Toronto or L.A. (Gretzky and Jari Kurri are still good, but all that smog must have dented their style — they just don't have the magic they used to.) Granted, the Canadiens' offense is not the smooth scoring machine the Oilers had in the '80s, but coupled with a sturdy defense, it gets the job done quite well. It looks like the Bruins' favorite tormentors will pull it off this year. Montreal in six games.

Bulls Won't Down N.Y.

Hamoudi, from Page 20

the entire Chicago front line. Jordan and Pippen may be exceptional players, but you can't win a ball game if your team can't rebound. If Greg Anthony and John Starks play as they have been, it will more than enough to secure the victory. As a matter of fact, despite my natural inclination, I will make a bold prediction regarding this series. Not only will the Knicks win, but it will take them less than six games to do it.

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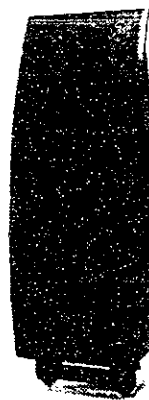
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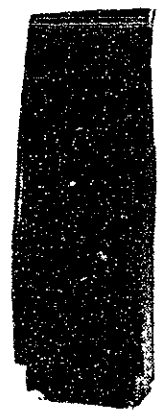
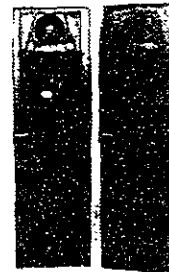


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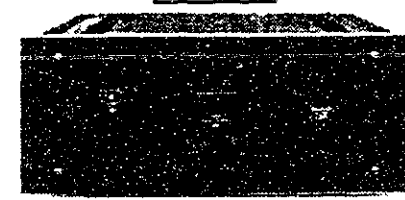
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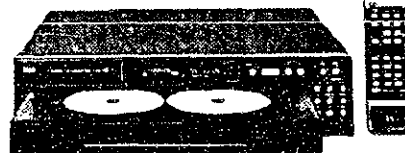


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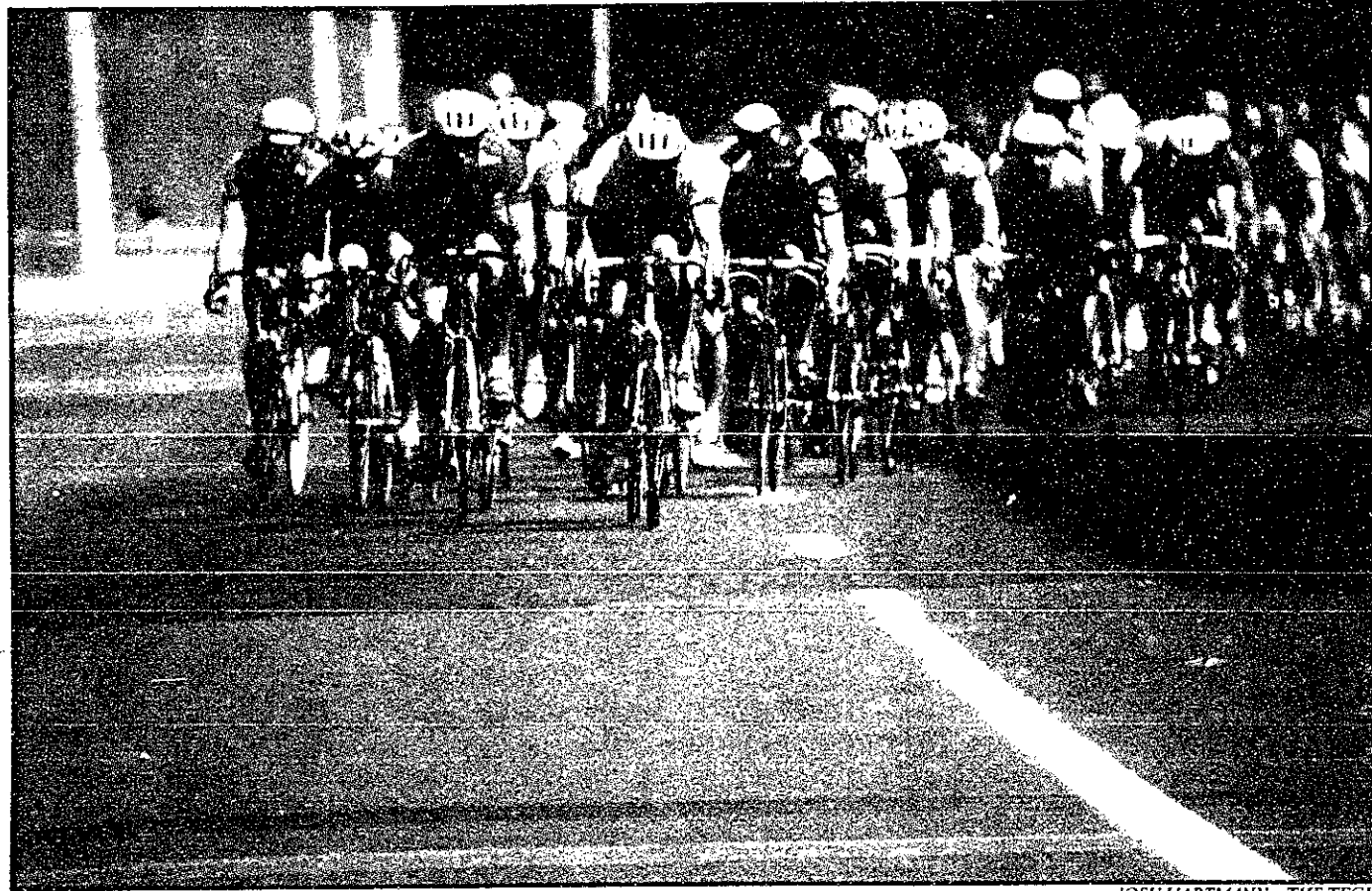
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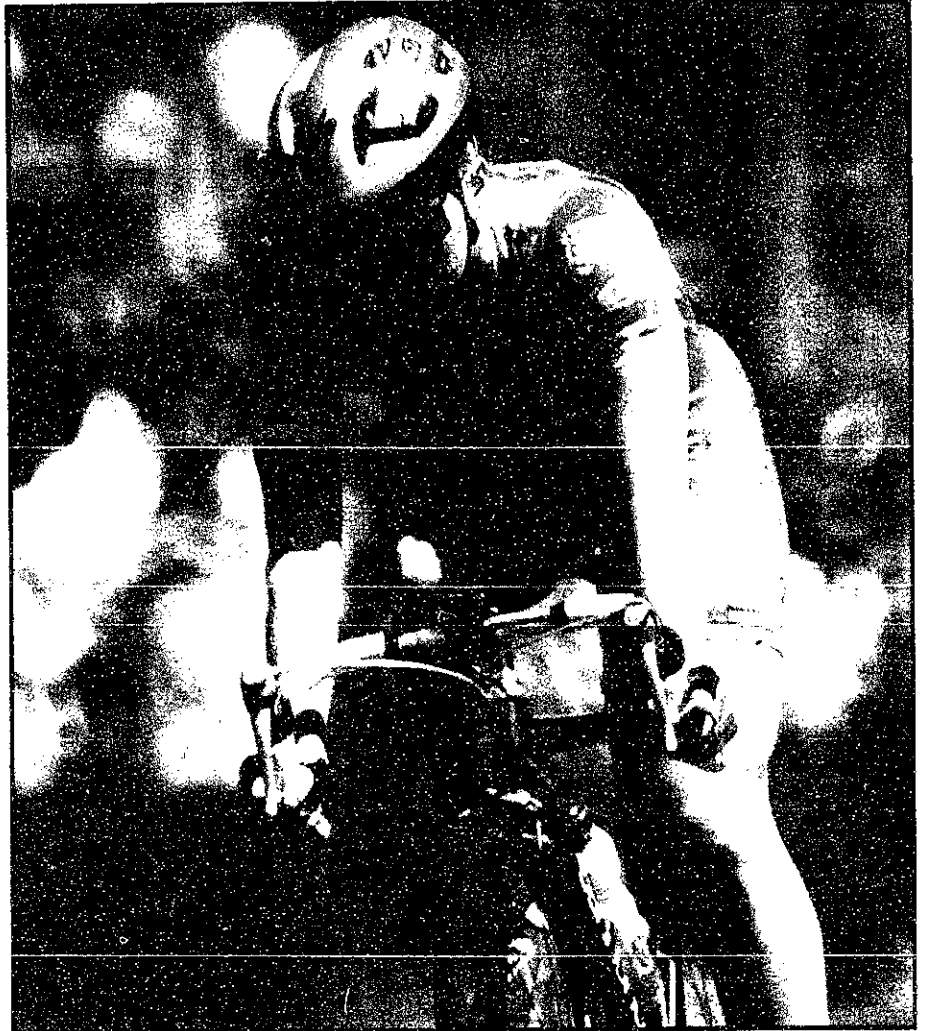
SPORTS

Cyclists Compete in National Championships



JOSH HARTMANN—THE TECH

Above: Cyclists bear down upon the finish line during the National Collegiate Cycling Championships. Right: A lone cyclist rounds a corner near Harvard Square.



By John Morrell

TEAM MEMBER

MIT hosted the National Collegiate Cycling Championships May 22 and 23. The 250 cyclists from across the country came to Cambridge to compete in three events under ideal weather conditions for the coveted "Stars and Stripes" national championship jerseys.

The riders, representing 32 teams and 10 conferences, are the finalists from the conference qualification competitions, which began in

February for those fortunate enough to live in warm climates. Kjirste Carlson PhD '93 led the MIT Cycling Team to its best-ever team finish of 9th place while she took third in the women's individual competition.

Saturday's road race event was held on a hilly 7.2 mile circuit in Arlington, Belmont, and Lexington. Each lap concluded with three short but very steep hills just before the finish line. Carlson, Jill Sherwood '95, Christine Sai-Halasz '95, and

Karon Maclean G were among the 101 women lined up to start the seven-lap race.

Aggressive racing and an early crash took several riders, including Sherwood, out of the race on the first lap. With the University of Colorado working hard to force the pace on the climbs, the size of the field slowly decreased over the next few laps. The critical move came on the fifth lap, when a group of seven riders, including Carlson, broke away from the rest of the field. The move forced the field to split into three groups as riders tried to catch the group in front of them.

On the last lap, the 10 racers in the front group began jockeying for position for the final uphill sprint to the finish. Carlson began her sprint first and used her power to take third behind Janell Parks of the University of New Mexico and Sunne Pollart of the University of Colorado.

In the 72-mile men's race, early breakaway attempts kept the 140 riders on their toes, with some of the riders being dropped by the fast tempo. On the third lap, a breakaway led by Jeff Winkler of University of California at San Diego quickly established a 40-second lead. On the fifth lap, Winkler dropped his breakaway companions and quickly built his lead over the field to three minutes despite numerous attempts to close the gap by riders in the field.

Winkler showed that his 7-minute margin of victory in the West Coast Collegiate Championships was no fluke by cruising to a 3-minute victory and a national championship jersey. Tyler Hamilton, a Massachusetts resident riding for the University of Colorado, attacked with two laps to go in the race and held on to claim second.

He was followed by a large bunch containing most of the 45 other riders left in the race, including Paul Nealey G, whose 36th place finish was MIT's highest. Garret Ito G and Rich Pawlowicz finished just behind the main pack. John Morrell G and Abe Stroock '95 failed to finish due to mechanical problems.

After a short night's rest, the riders were up early on Sunday morning for a team time trial which followed a difficult 15 mile course through Concord, Carlisle and Bedford.

Stanford dominated the women's event and thus finished the season with an undefeated record in team trial events. The University of California at Davis led the rest of the teams to take second, 1 minute and 12 seconds behind Stanford. Davis was followed closely by Cal Poly/San Luis Obispo, the University of Colorado, and MIT.

This 5th place finish was the best ever by the MIT women's team in the national championships. In the men's event, the University of California at Santa Barbara continued its season-long domination but was followed closely by the University of Colorado. MIT put together its best team race of the season, taking 10th, one second behind Cal Poly/San Luis Obispo and one second in front of the University of California at San Diego.

Sunday afternoon's criterium race in Harvard Square was the final event of the championships. Thousands of spectators lined the 1-kilometer course to watch the women's 30-mile race and the men's 40-mile race. Both races saw fast-paced action as riders continually attempted to break away from the pack and

claim points (called prems) given to the race leader at the end of specified laps. Lying in 12th place, just 2 points behind rival University of Massachusetts at Amherst going into this final event, the MIT racers rode aggressively in search of every possible point. In the women's race, Carlson scored twice in the prems and took 6th in the final sprint, which was won by Janell Parks. Abe Stroock, in only his second season of collegiate racing, scored once in the prems sprints and also took 6th in the final sprint of the men's race. The aggressive riding paid off as MIT moved to 9th in the team competition, edging out the University of Massachusetts by three points.

The newly crowned Dr. Kjirste Carlson (she defended her thesis on Friday, the day before the championships started) used her criterium performance to solidify her position and finish third overall in the women's individual competition, while Stroock's criterium performance moved him to 12th overall in the men's individual competition. Carlson's performance caps an outstanding collegiate cycling career that includes two Eastern Collegiate Conference individual championships and many victories throughout the last three seasons. The women's individual title went to Janelle Parks while Sunne Pollart took second. Tyler Hamilton used a victory in the criterium to overtake Jeff Winkler and capture the men's individual title. The performances of Hamilton and Pollart led the University of Colorado to its 4th national team title, followed by the University of California at Davis in second and the University of California at Santa Barbara in third.

Results

Individual Women	Points
1. Janell Parks, University of New Mexico	104
2. Sunne Pollart, University of Colorado	80
3. Kjirste Carlson, MIT	68
4. Bobbie Mischler, University of Washington	56
5. Karen Steiner, California Polytechnic Institute-SLO	50

Individual Men	Points
1. Tyler Hamilton, University of Colorado	169
2. Jeff Winkler, UC-San Diego	165
3. Adam Laurent, UC-Santa Barbara	155
4. Ben Bourne, UC-Davis	136
5. Greg Swinand, University of Massachusetts	94

Teams	Points
1. University of Colorado	519
2. UC-Davis	333
3. UC-Santa Barbara	289
4. UC-Berkeley	267
5. University of New Mexico	250
6. Stanford University	245
7. Indiana University	221
8. UC-San Diego	219
9. MIT	185
10. University of Massachusetts-Amherst	182
11. California Polytechnic Institute-San Luis Obispo	174
12. University of Washington	156
13. Pennsylvania State University-University Park	134
14. Cornell University	118
15. Texas A&M	66

Knicks Will Be NBA Champions

Column by Halder A. Hamoudi
SPORTS EDITOR

The New York Knickerbockers will win the NBA championship. This may not be the biggest surprise in the world, but after having publicly embarrassed myself with that Bills pick several months ago, I think I better take the safe route this time. There are several reasons why 1993 will be a good one for Riley's Knicks.

To begin with, only football's AFC is worse than the Western Conference when it comes to lame conferences in professional leagues. Phoenix, which appears to be the favored team in the West, took a full five games to beat the Los Angeles Lakers, and Game Five even went into overtime. A surprise Seattle

appearance will be even more favorable to the East, as Seattle center Sam Perkins is simply not big enough to play at that position in the NBA. Ewing will dominate the middle, and Seattle's outside is not good enough to compensate. True, the Sonics beat the Jazz, but only incompetent Neanderthals like Mike Duffy and Andy Heitner (and Mormons, maybe) thought Utah could win.

Thus, the question is not whether or not the Knicks can beat whoever wins the West, but whether or not they can top the Bulls. I do not think this will be terribly difficult. Most importantly, I am going to Columbia next year, and New York is a better city than Chicago. Also, the Bulls are down 2-0, and they are

frustrated. Jordan is not used to having the spotlight removed from him and placed on, of all people, the man guarding him, John Starks. Jordan's anger was apparent yesterday when he all but threatened to gun down Knicks guard Greg Anthony for daring to touch his royal person. After talking up a storm about how wonderful he and his team is, Jordan has been reduced to vitriolic attacks on the Knicks' "dirty play." All of this is symptomatic of Chicago's inability to cope with the more physical Knicks.

Furthermore, Ewing is playing at his best, and he has dominated the Bulls inside the paint. In the last game, he had as many rebounds as

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Outstanding Athletes Recognized at Banquet

By Roger Crosley
DIRECTOR OF SPORTS INFORMATION

At the recently held Seventh Annual Celebration of Athletic Excellence banquet, MIT athletes from all sports were recognized for exceptional athletic performance over the past school year. Leading the charge was the tennis team, which picked up three of the convocation's major awards. Alan Walpole '93 won the Howard Johnson Award as the male senior athlete of the year, and he also picked up a Straight "T" for qualifying as an individual for the NCAA Division III national championship in both singles and doubles. During the 1992-93 academic year, Walpole compiled a singles record of 11-2 and was 14-0 in doubles with partner Jay Muelhoefer '94. Walpole, an All-America in both 1992 and 1993, was ranked as highly as 13th in the nation in Division III in singles, and he and Muelhoefer were

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