VOLUME LXXXVIII NUMBER 24 PASADENA, CALIFORNIA

FRIDAY 17 APRIL 1987

Long Talks On Terrorism

by Mark Looper

"Antiterrorism policy consists of choosing the least of several evils," said Dr. David Long last Wednesday to an audience of 33 people in Beckman Hall. Dr. Long is the Associate Director for Regional Policy at the State Department's Office of Counter-Terrorism and Emergency Planning. His talk, titled "Terrorism: The American Response", was sponsored by the Caltech Y.

Terrorism is an ancient problem; however, until just a few years ago, it was always considered a subset of different policy areas, such as those concerning the Arab-Israeli conflict or the Northern Ireland conflict. Only recently has terrorism itself become a separate category of policy interest, with efforts being made to consider the problem as a whole, wherever it crops up.

Thus many different departments of government have been working on different aspects of terrorism, pretty much in isolation, for years. For example, the FAA was interested solely in hijackings and bombs aboard airplanes. With the new unified interest, said Long, coordination has become a big problem, as has simply finding out what different groups are doing.

To deal with this, the Interdepartmental Group on Terrorism was set up. For example, the FBI/LAPD antiterrorism task force at the 1984 Olympics in Los Angeles worked so well that this model for interagency cooperation has been copied in other cities. However, depite these recent successes, Long emphasized that "antiterrorism policy is not monolithic": it is still changing and developing, and will continue to do so.

But what is all this organization in pursuit of? Given the desire to develop a unified antiterrorism policy usable against acts of terrorism anywhere in the world, how do we actually go about doing this?

Dr. Long summarized the process of devising such a policy in four questions that need to be answered. First, what motivates a terrorist? After all, "you don't get drafted into terrorism": the motivation has to come from within, as instilled by political, social, and economic influences.

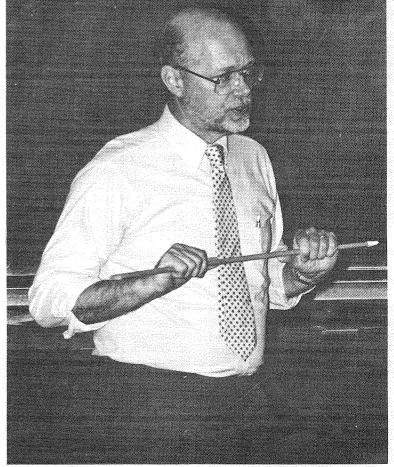
All The Factors

Long emphasized that all factors need to be considered together. He characterized the statement that "if you solve the political problem, then terrorism will end" as "baloney." The political problem, he said, is "an intellectualization of gut feelings" of anger or despair, usually with an economic cause. But "you can't throw bombs at an oil glut," so bombs get thrown at the symbols of a convenient political problem instead.

Second, how do you identify a terrorist? To avoid loaded phrases like "innocent civilians," a simple definition of a terrorist act might be "an act that results in death or injury to noncombatants"; however, even such a basic definition runs afoul in practice of the truism that "one man's freedom fighter is another man's terrorist.'

A phrase that Long used several times during his talk was "politics is the art of what you can get," for you are unlikely to get a consensus on just who is a terrorist and who isn't, but "people are dying while you argue." (Long told of shocking an Israeli official when, in response to a question, he identified the Jewish Defense League as the major terrorist group in New York City.)

The solution, although dissatisfying, is the only one that stands a chance to allow a unified effort to be made to reduce acts of terrorism. We must "identify [terrorists] without labeling them"just "find the guys with the bombs" and try to prevent them from ac-



Doctor David Long, an associate director at the U.S. State department, gives his remedy for terrorism. The Caltech Y sponsored Dr. Long's talk.

ting with as little taking of sides as possible.

As an example of this, Long cited the struggle between the Tamil minority and the Sinhalese majority in Sri Lanka. There is "no way to win" if we take sides, so the best we can do is to try to upgrade

airport security to prevent Tamils from blowing up planes without letting the technology involved be used to blow up Tamils either.

Third is the technical question: how do you counter the physical apparatus of terrorism? There is continued on page 5

The Core Is Hot

[CNB]—Scientists for the first time have determined the temperature at the earth's center by experimentally simulating the extreme pressures in the planet's molten core. The geophysicists from Caltech and the University of California in Berkeley published their findings in the April 10, 1987 issue of the journal Science.

From their high-pressure experiments they conclude that the temperature at the earth's core is thousands of degrees hotter than previous estimates based on less direct evidence. They report that the molten iron in the earth's core has a temperature of about 6,900 degrees Kelvin-almost 12,000 degrees Fahrenheit. The research marks the first direct determination of the melting point at the very high pressures at the earth's core.

Previous studies were able to measure iron's melting point only to relatively modest pressures. Extrapolations from these lowpressure measurements led to upper estimates of about 3,000 to 4,000 degrees Kelvin (4,900 to 6,700 degrees Fahrenheit) for the core's temperature.

The study was conducted by graduate student Quentin Williams and Raymond Jeanloz, professor of geology and geophysics, of UC Berkeley and, from Caltech, Thomas J. Ahrens, professor of geophysics, Jay Bass, a visiting associate professor of geophysics, and Robert Svendsen, a graduate

In the experiments reported in Science, the melting point of iron was measured using two techniques. For moderately high pressures-up to about 1 million atmospheres - the researchers were able to make measurements in a laser-heated diamond cell. In this novel apparatus, a thin film of 99.99% pure iron is placed between two layers of ruby. This sandwich of iron is then compressed by diamond anvils while being heated by a tightly focused laser beam. Using this instrument, the Berkeley scientists have determined the melting point of iron over a greater continuous range of pressures than ever before achieved.

For higher pressures-up to about 3 million atmospheres—the researchers measured the temperature of shocked iron and iron's melting point for the first time. Dr. Ahrens explained that in his lab, the Helen and Roland Lindhurst Laboratory of Experimental Geophysics, there are three powerful guns capable of accelerating projectiles to very high speeds. "When the largest of these—a 106-foot-long, 35-ton, light gas gun—is fired, the entire building shakes, and a one-ounce plastic and tantalum bullet attains a speed as high as 7 kilometers per second (16,000 miles per hour)."

When this bullet strikes its target - a thin film of iron deposited on aluminum oxide-it produces the intense pressures required for less than one microsecond. To measure the temperature, a novel radiometric instrument is employed, similar to ones astronomers use to measure the temperature of stars.

Taking into account the fact that the core is not made up of pure iron, the researchers arrived at a temperature of about 6,900 degrees Kelvin for the very center of the earth. The temperature at the boundary between the inner core and outer core is about 6,600 degrees Kelvin and the temperature at the boundary of the outer core and the mantle is about 4,800 degrees Kelvin.

These temperatures imply the existence of a major boundary layer at the base of the mantle that acts something like a pressure cooker, holding the heat in. This layer does conduct heat, but is not itself convecting. Therefore, a great deal of the heat generated within the core must remain in the core. If the boundary layer did convect, the core would be cooler and the mantle hotter.

Rights' Review in Helsinki

by Huy Cao

A KABC Radio commentator recently spoke at Caltech about an unusual assignment that he was appointed to by President Reagan. He was sent to Vienna as an American delegate for the Helsinki review conference, and he spoke about this in the talk sponsored by the Caltech Y's Distinguished Speakers Fund and Hillel Extension.

Dennis Prager was one of 12 "public members," that is, non-diplomats, representing the United States at the Helsinki review conference in Vienna. Mr. Prager was a delegate during the opening weeks of the conference.

The conference, still going on, has been reviewing the human rights situation in the Europe. The 35 participating countries are all European with the exception of the Soviet Union, the United States, and Canada. The basis for their human rights judgments are contained in the Helsinki Accords of 1975 which guaranteed such basic human rights as freedom of religion and movement. The Accords also provided for official recognition of post-World War II borders, technological cooperation, and the monitoring of human

Mr. Prager first spoke about the advantages and disadvantages of the Accords. Many people have been highly critical of the Accords because they feel that it has been ineffective in bringing about permanent human rights changes in the Soviet Union, that it gave the Soviets exactly what they wanted in terms of border recognition, that it has helped only the Eastern Bloc countries, and not the West, in technological development.

However, Mr. Prager gave reasons for why he thinks the Helsinki Union and Eastern Europe. That's

Accords is indeed better for human rights in the long run.

"Number one, you might recall that whenever the West attacked the Soviet Union for human rights violations, the Soviet response was, 'Those are internal affairs, and you may not meddle in our internal affairs.' Helsinki as rendered that unacceptable in international dialogue. For that alone I think Helsinki was worth it.

"Number two, it has made human rights an international issue. By their signing the Accords human rights has become, de facto, acceptable as an international concern...previously Western Europe had had a nonconfrontational attitude toward the Soviet Union in human rights. But the human rights issue has now been resurrected as an issue in Western Europe with regard to the Soviet Union thanks to the Helsinki Accords.

"In the final analysis, I ask the dissidents themselves. Those dissidents like Bukovsky who are against the Accords are in the minority among dissidents in the Soviet Union and Eastern Europe who feel the Helsinki Accords have been ineffective.'

Self-Appointed Monitors

Mr. Prager explained that Helsinki monitors are people who appoint themselves—certainly they are not appointed by governments—to monitor the compliance of their country's government to the Helsinki Accords.

He noted, "The Soviets still crack down on Helsinki monitors. If it wasn't important the Soviets would not have arrested 37 out of 38 of the monitors. One question is whether the Helsinki monitoring movement dead in the Soviet

a serious question especially if you expel all those who monitor them, which has happened with Orlov and Sharansky, for example.

But there's no question the Helsinki Accords have revived the debate, on Soviet and Communist human rights violations, in Western Europe and partially in the United States and certainly in the Soviet Union and East Europe.

"Now there is something someone in the Soviet Union can hang his hat on-they can say, 'You published in Pravda and Isvestia that you would follow the Helsinki human rights agreements.' The publishing of the Accords was part of the agreement, and on that day, that one day, there was a ray of hope for human rights in those [Eastern bloc] countries.'

Mr. Prager snared with the au dience what he termed "the single most boring activity" he had undertaken in his adult life. The undertaking of this activity motivated him to remark, "Whatever part of me ever wanted to become a diplomat was destroyed. There are a thousand professions I could name off hand that I would prefer to being a diplomat."

The activity he was talking about was his compilation of report cards for all 35 foreign ministers who spoke. He rated each from "excellent" to "worthless."

He gave "excellent" to those countries which sited specific violations in strong terms. The United States, Canada, Denmark, Iceland, W. Germany, and Great Britain were excellent for mentioning specifics, including the situation of dissidents, Soviet Jewry, the psychiatric hospitals in which Soviet dissidents have been put in, the Soviet Union's activity in

continued on page 2

LETTER

Ditch Day Central

To The Editors:

Like most everyone else on campus, we in the Public Relations Office always have a great deal of fun on Ditch Day. So do the news media, who descend on campus in droves. In years past, however, we have always had difficulty in providing an efficient source of information to the media and to the campus community on such matters as the locations of the most inventive or photogenic stacks, up-to-theminute reports on efforts to break particular stacks, the locations of seniors tied to trees, and so on.

So I came up with an idea I call "Ditch Day Central," and I've spent the past few weeks discussing it with various groups of students, including most of the ASCIT leadership, the Interhouse Council, and the Senior Class President. These groups have made a number of valuable suggestions that I've incorporated into the plan.

Thanks to the generosity of Ken McGuire, Ditch Day Central will be located in the Y Lounge. My assistant Jacquelyn Dreher will staff Ditch Day Central. Several others from the PR office, myself included, will be walking through the houses and around campus,

THE TIME AND PLACE: ROTATION CASEEN

THE QUESTION: WHY IS PAGE HOUSE SO

following the progress of stacks and phoning in reports. We encourage everyone else to phone in with Ditch Day Bulletins as wellwe can't be everywhere at once and sometimes things happen very quickly. The campus extensions will be x2134 and x2138.

We encourage all students, both seniors and underclassmen, to make creative use of Ditch Day Central in planning and breaking stacks. For example, we would be happy to post requests from underclassmen for needed items or information. And do feel free to visit.

Finally, let me list a few things that Ditch Day Central is not. It is not an attempt by the PR office to co-opt Ditch Day. It is not an attempt to control Ditch Day or to tame it down. It is not an attempt to organize the random chaos that has always been an essential part of the fun of Ditch Day. I appreciate pranks as much as anyone. Ditch Day Central is an attempt to centralize and better manage the news coverage of this unique Caltech event.

I welcome your comments and suggestions.

-Robert Finn x3631 Acting Director Media Relations

Helsinki

from page 1 Afghanistan, etc.

On Iceland's statement Mr. Prager said, "I get the chills when I recall this, since it is the greatest ongoing human rights violation going on at the moment. It's what has been described by even the Washington Post as 'genocide.' Iceland mentioned Afghanistan in a very touching context. The foreign minister mentioned that Iceland and Afghanistan were admitted to the U.N. on the same day, and he said, 'Look at the fates that have befallen our respective countries since then."

Nearly Excellent

Given the grade of "nearly excellent" were the statements by Belgium, France, Norway, Portugal, and Switzerland.

Graded "Good" was Austria. "Mediocre" were Italy, Spain, Sweden, and the Vatican.

Said Mr. Prager, "Worthless, in the Prager scientific categorization of the Helsinki Accords, were Finland, truly living up to its reputation of having been Finlandized by the Soviet Union, and Greece, which doesn't condemn the Soviets even on Afghanistan and doesn't condemn Syria."

Mr. Prager was disappointed but "sobered" by the human rights statement by the Vatican.

"The Holy See, the Catholic church, said nothing on behalf of Christians in Eastern Europe or the Soviet Union. Being involved in this I can tell you that there are considerably more Christians in Soviet prison camps for being Christian than there are Jews for being Jewish, something by the way which is virtually unknown to Christians, Jews, or anybody else living in the West. In fact, so persecuted are the Christians that merely to be a a member of certain Christian sects in the Soviet Union is to be involved in an illegal act. To be a Jew is not illegal. To practice Judaism may be illegal, but to merely be a Ukrainian Catholic of whom there are 4 million is simp-

"And yet by and large, the Christian world is silent with regard to the persecution of fellow Christians. And hearing the Holy See say nothing about persecution of Catholics helped me understand something that I've long suspected when Jews have asked about the Holy See's relative silence during the Holocaust. It was usually perceived as antisemitism. I tend not to think that it was. I tend to think that the Holy See is quiet when anybody is persecuted, and in this regard this statement is both a defense and an accusation. It's a defense of specific antisemitism in the Holocaust but it is also an indictment on its lack of moral vigor when anybody is being perse-

Mr. Prager told a few vignettes, one about the ambassador from Liechtenstein (a country of 65 square miles next to Switzerland).

"Ambassador Warren Zimmerman, the head of the U.S. delegation, gave a speech on November 14 which was entirely devoted to giving the names and stories of Soviet victims of oppression. He gave case after case with their addresses, and if they existed, their phone numbers. So I was sitting there wondering how the Soviets would respond. But before that happened an amazing thing occurred.

Prince Myshkin?

"The Liechtenstinian ambassador asked the chairman for permission for everybody to stand for a minute of silence honoring all these victims listed by Ambassador Zimmerman! And I loved that moment, it was precious. It was a moment when reality and utter nondiplomacy to the point of Dostoevsky's *Idiot*'s naivete, had actually entered the room. The man had reacted totally undiplomatically-even the Americans were stunned. The Soviets stand up for victims of their own government? It was a real likelihood. So there was mumbling, a silence except for me who was crunching at my teeth. I couldn't help smiling. No one else was smiling because diplomats learn not to smile or grimace.

"There's a hubbub at the chair. They mumbled something back about having to check the rules on this very unorthodox request, that they simply don't know the rules, and that they'll get back to him later, hoping the 'don't-call-uswe'll-call-you' approach would work. But the Liechtenstinian doesn't back down and insists on a ruling. So there's more hubbub, and every minute that this drags on the Soviets are more embarrassed.

'The Soviet ambassador asks for the floor. This was his response: number one, that Zimmerman had told a pack of lies. But furthermore, he said, 'If we are to stand for human rights violations and in honor of victims, let us also stand for the millions of Americans who are unemployed. Let us stand for the black people in America, let us stand for the homeless in the streets of American cities, let us stand for the hundreds of thousands of Vietnamese killed by American bombs.' He starts listing this litany of American evils. And that was how they Soviets responded to charges of violations all though the entire conference.

"They add some other stuff. For example, they say we force Soviet ballerinas when they come to America to dance on glass barefoot. Now this one was a new one to me. I knew about the homeless, but that was a new one to me. Apparently, the JDL at some Soviet ballet appearance had broken a glass in a demonstration

continued on page 5

THE CALIFORNIA TECH

Volume LXXXVIII • Number 24 17 APRIL 1987

CHIEFTAINS

Ken Haynes • Michael Keating Jennifer Low

> ENTERTAINMENT Nancy Drehwing

PHOTOS

Joey Francis **SPORTS**

Steve Bard ANNOUNCEMENTS Josh Kurutz

REPORTERS

John "Scoop" Beck • Huy Cao Steve Gómez • Rob Grothe Mark Looper • Glenn Tesler

PHOTOGRAPHERS
Steve Bard • Joey Francis

Glenn Tesler

THE INSIDE WORLD Blacker: Ghost Writer Dabney: Scott Snyder Fleming: Brian Hayes Lloyd: Keith Owens, John Wiltse and Sho Kuwamoto Page: James Ibbetson Ricketts: Lisa LePome and Gary Ludlam Ruddock: Betsy Andrews

> BUSINESS David Goldreich Gavin Claypool

PRODUCTION Nick Smith • Glenn Tesler

> ZOO DOCENT Jay "Stinker" Lieske

THE CALIFORNIA TECH 107-51 Winnett Student Center California Institute of Technology Pasadena, California 91125

Phone: [818] 356-6154

Published weekly except during examination and vacation periods by the Associated Students of the California Institute of Technology, Inc. The opinions expressed herein are strictly those of the authors.

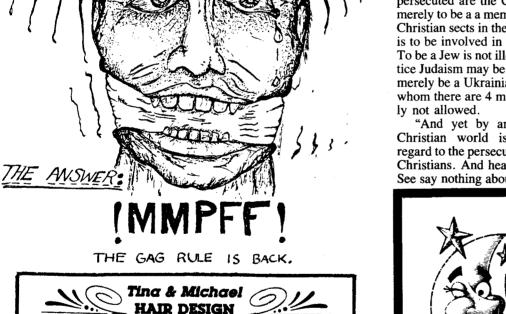
Letters and announcements are welcome. All contributions should include the author's name and phone number and the intended date of publication. The Editors reserve the right to abridge and edit letters for expediency, literacy, or other.

Turn in copy (preferably on an IBMcompatible, WordStar-formatted floppy disk) to the *Tech* office mailbox, room 107 Winnett. The deadline for copy is Wednesday at 5рм; for announcements, Tuesday at 5рм. Late copy may not be printed even if prior arrangements have been made with the editors.

Subscription requests should be directed to the business manager. Rates are \$3.00 per term, \$8.00 per annum (three terms), \$100 per life.

Printed by News-Type Service, Glendale, California ISSN 0008-1582

3.87



ASCIT FRIDAY NIGHT MOVIE

Specializing in Unisex Haircuts, Perms,

20% off to

Walk-ins and

Appointments

991 E. Green Street

Pasadena, California

Parking on 108 S. Catalina

793-2243 or 449-4436

RUTHLES

plus

BAXTER LECTURE HALL \$1 for ASCIT members

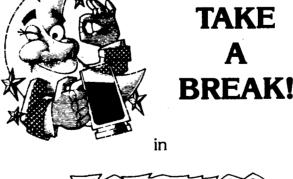
NEXT WEEK:

7:30 & 10:00 p.m.

"Snookles"

\$1.50 for others

Real Genius





Mexican Restaurant & Cantina

Relax and enjoy HAPPY HOUR with us!

- Complimentary Appetizers!
- Daily Drink Specials!

Two Nearby Pasadena Locations:

2936 E. Colorado Blvd. Btwn. San Gabriel & Madre 795-4248

Happy Hour: Mon.-Thur. 4-7 Friday 4-close 1987 Acapulco Rest. Inc.

449-7273 Happy Hour: Mon.-Fri. 3-6

2060 E. Foothill Blvd.

Btwn. Allen & Sierra Madre

ENTERTAINMENT

Food In Old Pasadena Merida, Kashmir, Fast Taco

by Nick Smith

If you haven't been in that neighborhood lately, you may be surprised at how Old Pasadena looks now. (For those of you who never noticed it, it's the area within a few blocks of Fair Oaks and Colorado.) The whole neighborhood is a mixture of nice old buildings, disgusting old buildings, new parking facilities, and remodeled buildings with "yuppie" written all over them. The good news is that some of the new things moving into the area are worth noticing. For instance, there is a new, six-screen movie theater that shows good films, with a promise of more movie screens being built in the vicinity. Even better, the Old Town neighborhood is becoming hipdeep in restaurants, and some of them are very good. The whole thing is worth a trip now and then, or a side-trip if you're going to the movies over there. For example:

Merida, at 20 E. Colorado, tucked back in a remodeled set of buildings that includes an Italian ice cream salon, a video store, and a beer company. The food is a wide variety of Mexican food, including a lot of seafood dishes and things from the non-border areas that rarely show up in most Americanstyle Mexican restaurants. The food is good, and very interesting. The prices are reasonable. Two problems: the place is too crowd-

ed at busy times, and the service sucks rocks. If you go there, try it at odd times. At standard lunch and dinner times, you'll have to put up with very slow service and waiters who vanish for too long at a time.

Kashmir International, 80 N. Fair Oaks. A variety of foodstuffs from India, including tandoori and curry dishes. Not a cheap place to eat, but worth going to for a special dinner or exotic occasion. Lunches and weekend brunches aren't expensive for what you get, which is very good food. You do not get huge quantities, but the service is good, and you are asked what level of spiciness you can tolerate, so that the chef can prepare something you can eat and survive. Be warned! "Very spicy" means very spicy. If you are not used to spicy foods, try the milder versions.

Fast Taco, at 37 S. Fair Oaks, is not the little hole-in-the-wall restaurant that's been there for years. Fast Taco is new, clean, and pretty good. It's kind of strange, too, since it has a trendy neon sign on the wall, and the radio was playing country-western music when I went in (mariachis, it wasn't). The food is cheap and good, surprisingly so. For \$1.75 you can get a soft taco with a choice of fillings, as well as some nice chips and great salsa. For tacos and burritos (\$3.50, and huge), you can get chicken, steak, pork or seafood

(shrimp, when I was there) fillings. In addition, the menu includes nachos, fajitas, broiled chicken, and other good stuff. The most expensive meal on the menu is \$4.95. For \$4.25 I got a seafood burrito combination plate, which included the aforementioned huge burrito, above-average rice, beans heaped with cheese, and a salad with tomatoes, lettuce and sour cream. The burrito itself had shrimp, tomatoes, onions and guacamole in the filling, and was well worth the price. The dessert menu isn't much (flan is flan-either you like it or you don't), but who goes to a place like that for dessert, anyway? There's a good dessert place right around the corner, so unless you really like flan, don't bother. Anyway, Fast Taco has about 20 soft drink varieties, and at least a dozen types of beer. Overall, a real bargain, especially since they offer a 10% discount for various school I.D.s, including Caltech.

For dessert? Oh yes, the Pasadena Creamery, at 50 W. Colorado. It's on the way from any of the above-listed restaurants to the UA Marketplace theatres. A good place to go on a hot day or a warm evening, featuring ice creams and frozen yogurts. Not cheap (the yuppie syndrome has hit the frozen dessert market), but very good.

Happy eating!

Mister Almost Right

by Nick Smith Making Mr. Right

Directed by Susan Seidelman After Weird Science, Re-Animator, and all of those other strange films, Making Mr. Right seemed likely to be a rip-off of a lot of things. Oddly enough, it's more fresh than I expected. It's about an android designed to operate on deep space exploration missions. It works, but the problem is to convince Congress not to cut off the funding too soon. The solution: hire a PR firm to sell the idea to the American public.

That's the only really weak point in the entire film: the PR firm is run by a woman, Frankie Stone, who seems totally unsuited for the job. She has never marketed a product or done political lobbying, lets business and her personal life mix, and seems totally unlikely to be the head of a small-but-powerful PR firm. However, Ann Magnuson, who plays the role, looks like what would happen if Shirley McLaine were a young, power-hungry yuppie. Then, of course, there's the android.

Ulysses and his creator are both

played by played marvelously by John Malkovich. The android requires a lot of physical humor, and the scientist almost a physical humorlessness. Both lead to slapstick scenes, and both lead to characters with whom the audience can empathize. Of course, the fact that the scientist designed the android to look like himself helps to bring about much of the humor, but it also emphasizes how much the android is the child of the man, the child who must accomplish what the father wants. It's all either of them have...

Much of the movie is predictable once it gets rolling, but the whole thing is enjoyable, even in the least believable scenes. (For instance, one of the running gags has to do with the fact that the android has an internal reset switch that needs to be fiddled with occasionally. Unfortunately, that doesn't make sense for an android that is supposed to operate alone in space for seven years at a time.)

The unfortunate stereotype of the scientist as a social maladroit who helps make millions for somebody else is carried on here, but it's actually part of the plot. This scientist is a social maladroit, but he'd be the same thing if he were an accountant. He's very much alone, and plans to be that way forever, if he has his way. And so what if someone else makes the money? He's making the future, at least the one he wants to be in.

Director Seidelman, who also did Desperately Seeking Susan, has put together a film that relies more on visual appeal than logic, but it's pretty good. Making Mr. Right is worth seeing, if you can put up with the sillier parts.

Market Focus Research Group Grad Students

\$35 cash for 2 hours

Thursday, April 23 6 p.m. Must live on campus or have own residence off campus and must have own or share telephone. Must presently be using AT&T.

Call Virgil Curry for appt. Creative Data (Van Nuys) 988-5411

PRINTING CALCULATOR

Texas Instruments TI-5027.

Uses standard adding machine paper.

Portable, 4 AA batteries included!

Plus AC adapter for home or office use.

10-digit display, add/subtract/multiply/divide.

Memory functions, percent key.

One year old, little used.

Only \$20. Call the Tech at x6154.

Objet d'Art At Tech

brought a new exhibit to the showcase of Parsons-Gates this

month. The pieces selected reflect Southwest, consisting of masks, some late 19th century pieces.

BUY YOUR CALTECH CARD

AND SAVE

ALWAYS **10%** OFF WITH YOUR

CALTECH ID

PROUD PROVIDERS

OF CALTECH'S FOOD SERVICES

The Southwest Museum has sculpture, serigraphs, and prints by and about Northwest Coast Indians. The Legacy Show, from the Provincial Museum in Victoria, B.C., focuses on the work of conthe Legacy Show currently at the temporary artists, but includes

Greg Susca Painting and Wallcovering Interior and Exterior

(818) 249–5646

License #456757

Special discounts to Caltech community



- CHICKEN TAVOUK KEBAB
- Fresh Seafood Specials
- GOURMET GIANT HAMBURGERS
- Daily Specials on the Board
- Refills on Soft Drinks and Salad Bar

all at reasonable and affordable prices all include French fries or rice pilaf, infinite salad, peta bread and butter

FOR THE ENTIRE MONTH OF APRIL

A FREE ROOT BEER FLOAT TO ALL FRESHMEN AND SOPHOMORES

FACULTY, GRAD STUDENTS, ATTEND! Mondays & Tuesdays are Beer Days. Half price on beer.

535 SOUTH LAKE AVENUE 1/2 BLOCK NORTH OF CALIFORNIA **SELF-SERVICE**

kinko's copies

Open 24 Hours **SEVEN DAYS A WEEK** visit our new location!

Kinko's Glendale

441 N. Brand Blvd. Glendale (818) 500-1811

> **NOW OPEN!** (but not 24 hours)

Copies beyond belief from state-of-the-art Xerox copiers for great-looking flyers, newsletters, brochures, theses, reports, and resumes.

Print quality and incredible speed at prices that will astound you!

kinko's

827 E. Colorado Blvd. Pasadena (818) 793-6336

The Inside World

Blacker: The new management would like to first sincerely apologize for the content and attitude expressed in the last several Blacker inside world submissions. Sorry Susan, It is now clear that the best reason to read inside world is to find out what's going on in the houses and to afford a cheerful, humorous and insightful glimpse into the everyday life in each of the student houses. Of course, these days, the submissions from all the houses have been very poor, with the exception of perhaps the Lloyd inside world entries. In order to alleviate the triteness and banality of Blacker inside world, all future entries will be the result of massive competition between hundreds of submitted essays and we hope that this will improve the quality of the final submission.

This week, the following poem was chosen for inclusion:

today I ate lunch in the courtyard with scott and with bill and the others we had chicken and fries and french toast and afterwards, donuts and cokes

after lunch we sat around throwing food at curtis and at chris and at ricketts then off to our one o'clock classes in small groups with our clipboards and pens

at dinner we had chicken with rice and we laughed when chris hurwits got dumped and when mike or jim said not to throw food and when the seniors made the same old announcement

the people who make up our house are the greatest most wonderful group even better than in ricketts or dabney or even those living in Lloyd

why just take a look at our freshmen they're beautiful and oh so clever a lot like the class just before them or the juniors we all know and love

i'm so happy that

We'll hear more of this later. Now, imagine losing your grip on a piece of plexiglass that you're cutting in the ME shop and accidentally letting your hand slip up against the blade of the band saw. Of course, you don't realize what's happening at first, so it takes about five seconds to notice your fingers on the Oh, sorry. Anyway, please continue to read Blacker inside world. Thanks.

Dabney: It was nearly 2:00AM in the subbasement of Dabney Labs. All the doors were Danney: It was nearly 2:00AM in the subbasement of Danney Labs. All the doors were locked, all the rooms were dark—except for one. In this puddle of light in a desert of darkness, three men were quietly working. One of them, wearing a black hat, dark coat, bow tie, and a DabniCorp identification badge reading "Lefkowitz, Darien," was mixing brightly colored chemicals in a large plastic container, quietly murmuring "Lime, lime, what goes with lime?" Off to the side and intently staring at his fingernails stood a person with unkempt red hair, dirty white T-shirt and old jeans known as "Bell, Kenny." Next to him stood someone who was known to the DabniCorp computers as "1573429613-1Groff, Shane."
"Well, it's done," Darien said after a while, looking up from the twenty-odd liters of purolish liquid in front of him.

purplish liquid in front of him. "Oh, wow!" exclaimed Kenny, moving in for a better look. "Does that mean -" He stop-

ped and stared as the liquid began to turn brown and cloudy.

"Wait a minute—that shouldn't be—" Darien started to say. A moment passed in silence.

Then Shane strode pruposely up to the lab bench and peered into the murky depths of the liquid, only to recoil rapidly after several seconds.

"What was that for?" asked Darien.

'Well, I don't know," replied Shane. "There seemed to be something moving in there.

But that's not possible, is it?" They all stared at the container, which responded by jiggling slightly on the bench.

"Is it?" whispered Shane. After quick glances at each other, they started to slowly back away from the bench. Meanwhile, the container had started to rock back and forth, spilling some liquid on the floor. As they watched, the vibrations grew more and more violent, knocking over several nearby flasks.

Then followed a pause where it stood completely still. But not for long-soon the walls of the container bulged outward slightly, contracted, then bulged again, completely shattering the container. And on the bench in the middle of the debris stood what looked like a very large hamster with an extraordinarily large tail.
"It's a long-tailed hamster!" cried Kenny. "Run!"

They ran for the exit, but the hamster was faster. It stood there in front of the open door, dripping wet, with gleaming black eyes and sharp white teeth in a stance that seemed to say, "Go ahead, make my day."

Suddenly, Shane had an idea. Grabbing the hose of a conveniently situated liquid nitrogen tank, he pointed it at the beast and opened the valve. The resulting stream of LN₂ hit the foul creature directly in the eyes. Temporarily blinded, the monstrous hamster took off at a dead run-right into the open door of a freezer that was open for cleaning. Kenny, almost nonchalantly, walked over, closed the door, and turned on the freezer.

And they all lived happily ever after (except the hamster, of course).

THE END

– Name

Fleming: A conscientious effort will be made this week to keep offensive material out of the *Inside World*. For this reason, the feature whose outline apears below was excluded. In a recent Philadelphia police raid, the suspect's freezer was found to contain one each of several parts of human anatomy, but **two** forearms. Why? One possibility is that he just didn't know how to eat them; hence motivating the feature:
Four Ways to Eat a Forearm

The four include: the drumstick method (for picnics, etc.), the "corn-on-the-cob" approach (for more formal occasions), the slow cooker (for those grade B specimens), and (of course) the standard cheese grater technique.

Now to the news . . . Roompick should finally be over, which means there are some winners and some losers: lower 1 and Gino's new alley (for a few weeks, at least), respectively... Interhouse B-ball tipped off last Friday with a dramatic double OT win over the Lloydies. Let's get down to the gym and cheer on the Big Red Machine! (J.J. says that even the lameo's are welcome)...Awesome off-campus party Saturday and "virtually every hot babe west of Palm Springs will be in attendance" according to the social team. Dress Hawaiian, look for the house with 47 White VW Rabbit Convertibles parked in front, and prepare to hottub, dance, party, or gawk with googly eyes! Congrats to Catanzaro, Vasquez, Schleuter, and Burleigh on being selected to attend frosh camp! The burning question in everyone's mind: How did the salamander get into Glenn Lewis' bathtub? (or was it "Daniels, don't you get tired of hearing your own voice?")... Recently, a member of the Caltech community approached Randy Brown and said, "Randy, have you seen this before? Take a close look, because you'll be paying for it!"

A) New Housing Rep Dave Phillips B) Dirty Gary

Buffaloface himself D) None of these, it was some high school girl introducing Randy to their love child. Coming soon: Answers plus The Boy Wonder's biggest lies!

Until Next Week – Wavne Manor Lloyd: The moment you have been waiting for has arrived. We are ready to reveal our new format. As of now, we have become the local affiliate of the FOX broadcasting net-

We now begin our regularly scheduled programming. Wild Kingdom, starring Jay Giezen
Jay: Gentlemen! Today we will study the habitat and behaviour of the giant... you know, .. uh, what are those those things called? They got those big shells, and they walk

real slow. Geez, they're, uh, uh,... turtles! Yeah.
We will be visiting the continent of Africa where the wild turtles roam free in majestic herds. [cut to scene of roaming turtles]

We see turtles arranged with the stronger members of the herd on the outside in order to protect the weak and young.

Here we have located a solitary, sleeping tortoise. I'll stay in the helicopter while Jim

taps on its hard, protective, uh, you know, uh, shell.

I think it's awake now... oh, but wait! Thousands of red ants are streaming out, blood still dripping from their mandibles. This is terrible, just terrible.

APh 17 Foul-ups, Bloops, and Blunders Setting: Classroom with greying professor lecturing to students.

continued on page 5





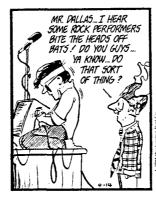




BLOOM

big and legible, ed.











Berke Breathed

















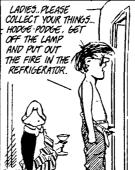
















Terrorism

from page 1

"an arms race mentality" involved in terrorism-capable weaponry, and the defensive side is losing. Detectors are advancing rapidly, but such developments as plastic pistols and remote detonators remain ahead of detection capability.

In the recent case of a bomb planted by a man in his girlfriend's carry-on bag, the bomb was detected before it was placed aboard an El Al jet not because of plastic sniffers and X-rays but because a security guard had a "gut feeling" that something was wrong. This is an area where great improvement is possible.

Terrorist Motives

Fourth, if you have the ability to figure out what motivates terrorists, to identify them before they act, and to counter their weaponry, what steps do you actually take to put this ability to use?

Several approaches are necessary: efforts need to be made to obtain a consensus among our allies to stop terrorism. In addition to their fear of retaliation, several of our allies have economic ties to countries that sponsor terrorism, which adds to their reluctance to put pressure of any kind on them.

Helsinki

from page 2

against the Soviet, and on that basis they had charged we forced their ballerinas to dance on glass.'

Eastern View Of Rights According to Mr. Prager, the

East view of human rights is different from that of the West.

"For years, I have been hearing, which they still say, that they have a very different concept of rights in the Communist world. That's true. But they will add, 'We believe that it is a basic human right to work. It took me five years to figure out the response to that, because it is very hard to answer what I believe is demagoguery. But I realize what the answer is. 'Yes, in the Soviet Union you have the right to work. But in the West you have a right you don't have in the Soviet Union, the right not to work.' It was something which we then implemented in the list of standard U.S. answers to Soviet

Persuading them that pressure is necessary is a diplomatic task.

Intelligence operations to sniff out terrorist acts in the planning stage are needed.

Security for Americans abroad and other potential targets needs improvement. This can take the form of "hardening" sites like embassies, but also needs an educational component (don't develop a pattern to your movements, be alert all the time...) for those at risk.

Legal questions arise-murder is a state crime, so can the FBI get involved? - which point out areas in the law that need to be modified to smooth the path for interagency cooperation.

A military approach, said Long, is a necessary option. The use of force in counterterrorism is mostly for political, not military, objectives ("to show Libya that there is a price for sponsoring terrorism"), except in the case of an actual hostage rescue. Capabilities need to be developed for both kinds of armed action.

Any proposed counterterrorist action must be looked at in the broad context of all such actions, lest one undermine another as occurred in the Iran arms deals.

A long question-and-answer session followed the talk. Most of the questions centered around apparent contradictions between the antiterrorism policy outlined above and U.S. actions around the world. For example, Long stated that the U.S. would avoid taking sides wherever possible, but sides have certainly been taken in Nicaragua and the Middle East.

For another example, U.S. policy is to try to end the infliction of death and injury on noncombatants, but the U.S. has supported a number of governments and groups at whose hands noncombatants have died, and in the raid on Libya a year ago was directly responsible for some noncombatant deaths.

Long's response was not to say that this or that group are "freedom fighters," not "terrorists," nor to deny that noncombatants have been killed ("for every incident you cite [of killings by Israel] I could name ten-after all, this is my business"); rather, he repeated the statement that "politics is the art of what you can get."

Terrorist Vacuum

Efforts to end terrorism do not take place in a vacuum, for you have to press where pressure is politically possible, and where pressing will not cause more problems than it solves.

Thus not only is it easier politically for the government to put pressure on, say, Libya than on Israel, but also the perception in the Administration is that pressing Israel, say, by withdrawing support to a significant extent, will cause harm to Israelis out of proportion to any good it might do.

The important thing, Long said in conclusion, is to choose your course only after consideration of its likely consequences. As he said when a questioner accused the U.S. of "blindly supporting Israel," "we may make mistakes, but at least we will make them with our eyes open."

nonsense.

"In the Soviet Union, if you don't work you go to prison camp. In the United States if you don't work you get a check. It's a very big difference! This isn't a defense of unemployment, it is merely a statement of the difference.

'There's an addition to this the definition of a slave. The one right a slave has is the right to

The second way that the Soviets respond to criticism, according to Mr. Prager, is to repeat, "'You can talk about human rights all you like. The Soviet Union cares about the greatest human right of all, the right to survive, the right of the earth to survive, and therefore we

must have arms control.' That has a staggering amount of acceptance in the West. All other issues are subsidiary to the issue of the survival of the human race. By arguing that, they sound like they really care and we're callous. That's the power of constantly raising in response to the human rights issue the nuclear weapons issue.'

Mr. Prager is a talk show host on KABC Radio, a television cohost, and an opinion columnist for the Los Angeles Herald. He has traveled to over 65 countries and has lectured widely around the United States. At Columbia University he did his graduate work, where he specialized in Communism.

PATIO RESTAURANT "A unique restaurant with great food at a reasonable price." Elmer Dills, KABC TV "Has a nice comfortable patio and inexpensive cuisine." — Paul Wallach, Westways Magazine Famous for our Swedish pancakes, open-faced sandwiches, fantastic omelets and delicious cakes and pastries Open to serve you Monday thru Saturday 7:30 am-5 pm Join us Sundays 8 am-4 pm 25 years in Pasadena Reservations accepted • MC and Visa accepted 230 S. Lake Ave., Pasadena, 818-792-8044 acres of free parking

More Inside World

from page 4

Professor: "...and dS=CndT, uh, whoops! I meant dS=CvdT!" Professor: "...H=P, no U+P, uh, oh [beep]!!"

People's BOC

Announcer: Welcome to the case of "The Bad Rap." [enter plaintiff] Announcer: This is the plaintiff, Mr. John Haba. He claims that he originally wrote the song "It's Tricky", and that popular rock group Run-DMC plagiarized it. He is sueing for damages plus enough money for a couple new shirts. [enter defendants]
Announcer: These are the defendants, rock group Run-DMC. They claim that "The man's

a fool/the man's on drugs./I can't stand/those shoulder shrugs."

The events you are witnessing are real; the participants are not actors. They have agreed to settle their dispute here, in our forum, "The People's BOC." [Judge Nayvelt is now entering the courtroom.]

Nayvelt: Please sit now. Mr. Haba, what are you saying?

Haba: Aah, well, aah, I wrote this song at cross country practice, and I thought, aah, that would Arnold do with this? Then, aah,...

Nayvelt: That is enough. Now the Run-DMC.

Run: We wrote this song,

DMC: And dats a fac. Run: Jus' check his skin,

Run&DMC: He jus' ain't black!

[Jam Master Jay makes scratching noises]
Nayvelt: I am making decision now. I will think two minutes.
Nayvelt: OK. Run-DMC is right. John Haba is not black. End of Case.

Announcer: And there you have it. The plaintiffs walk away a winner. Tune in next week for the case of the "Fat Armenian Pig."

-Jethro, Skeeter, and Enos

Page: Now, folks. Before there's any talk of wrongdoing, remember that there are a few

people in the hallway who are *not* going.

Yes folks, it's that time of the week again when the power goes to my head. Another five days of precious, succulent, non-mandatory board has twice passed our lips—once on the way down, once coming back up. Now don't get upset, Gary, that's a compliment where I come from. Sort of like "Yummy, yummy! That food was so good, I'd like to eat it all over again BARF!"

Party on Saturday night was out of control. Thanks a lot Security. Nice job guys. By the way, the retirement home phoned asking you not to stay out so late next time. Page highlights of the evening were:

Ming Lee got frucking drunk, asschhole;

Quantum pretended to dance with a girl:

Psycho got with...well, Psycho knows what he did; Bob stayed alive (better luck next time, Bob);

Rosco didn't; Aram's friends got...they met nice girls and got to

Know them;

and Rachael-just because he looked like someone you knew from high school, is that

Last item this week is The Pool. In case you haven't heard, it's over. Psycho pulled a fast one on Bob for half the money and, not having gotten over his penchant for little girls yet, will be taking Junko to the formal. Just remember Tony - a minute's pleasure can mean

a lifetime of regret. Oh yes. The gag rule is back on people and through my love for you all I have decided to agree to sex with any IHC person who is willing to change and vote in favor of no gag rule.

Yours, with just a hint of sarcasm,

Ricketts: Howdy dudes and dudettes. This is one bushed pastry man. Broomball was great, but I'm having trouble moving. The Juniors and Seniors got put in their places, though, as Katryn the Great gave them a lesson in brutality they'll not soon forget. We all had fun, and we only lost one person. Amazing.

Well, last weekend the denizens of Ricketts Hovse (sic 'em, boys) [sic. sic. sic. -Eds.]

retreated to the outer world. Palomar and a lonely spot in the desert were the places to be. All I know about this is that two rattlesnakes lost their lives. Oh well, better them than

To hell with that. Let's talk about something a little more interesting. God, for instance. (Gaby wanted something controversial. What's more controversial than God?) I have two questions for you. Does God exist? Does he/she/it wear glasses? Does he/she/it have a navel? What is his/her/its sexual preference? Write your responses to these two questions on a piece of paper and mail them to me. (If you don't know my name, then look on the masthead. I'd rather write down a long parenthetical remark than waste valuable newspaper space with my name.) I'll give you the results of this survey next week. The most inventively offensive remark will win a prize, so make sure you put your name on that little piece of paper.

I don't have any other naughty bits this week, mainly because my gonads suffered a

real beating in broomball. (No, there was nothing implied in that sentence. I'm just tired. Like a whipped dog.) So go get smashed with your favorite prof. You might get lucky. By the way, if you've found this week's Inside World completely lame and you think

I should go soak my head, then write your complaints on a piece of paper and mail them to Tylis Chang, Caltech 1-59. He loves that kind of thing.

Remember Scurves. Parents don't complain that your Inside World is obscene. They complain that it's boring. (Everybody else got to rag on that lady. Why not me?)

- The Lil' Cook-Man Ruddock: Huevos is pregnant, Amy is blonde, and I'm writing the Inside World...I'd much rather be getting burns, feeding my cat or watching the Flems & us making a purple

mess in the gym playing basketball. mess in the gym playing basketball.

Appointed offices got appointed Tuesday night and most of them are posted outside Wayne's door. Rumor has it the most hotly debated post was Eddie's formal date... I guess we'll find out in May. Speaking of the formal: * * * , you'd better call Darlene soon 'cause the sign-ups come down the 24th.

The party with Page was kind of fun: slamdancing, fights, cops... the whole git. It must have been the nuclear waste that did it, although the Princely music was pretty evil too.

Next week's social event is Alley Wars. Maybe if you're lucky you can even kill off a few of your purp.

Pelomene Kikobobo & Happy Easter, Kiddies

-Bets the Frosh



from page 8

More Holes In Your Head

Ear piercing is now available (for students only) at the Health Center. This service is offered on Monday, Tuesday, Thursday and Friday evenings by appointment only. To schedule an appointment please contact Linda Pinson, L.V.N., after 5:30 pm (except Wednesday) at x6393. The cost (including earrings) is \$5.

Irish Dutch Exhibit

The premiere exhibition in the United States of a collection of seventeenth century Dutch paintings selected from the National Gallery of Ireland will be on display at the Bowers Museum in Santa Ana from April 11 to May 31. This is the *only* western showing of this exhibit, and was arranged under the auspices of the Smithsonian. The museum is at 2002 N. Main St. in Santa Ana, and admission is free. Tuesdays through Saturdays, 10 am to 5 pm, Sundays noon to 5 pm.

Become a Zoo Docent

Los Angeles Zoo Docents provide tours to students, teach youth and adult workshops in the zoo, and present classroom programs in Los Angeles area schools. Applications are now available for the Fall 1987 Provisional Class scheduled for Tuesdays 9:30-2:30 beginning October 6, or the Saturday class beginning October 10. Deadline for applications is May 1. Interested men and women should call the Greater Los Angeles Zoo Association at (213) 664-1100.

Attention Hungry People
The Red Door Cafe's staff is happy to announce that the Cafe will now be open on Saturdays from 12 to 5 pm to serve its traditional fresh coffee, teas, espresso, juices, and delicious baked goods and bulbous bagels. So come bring your appetites and ideas to the Red Door Cafe.

Reggae Festival

Friday, May 1st is the date of the First Annual Cal State Northridge International Reggae Fest. Guest include England's premier reggae vocalists Pato Banton and Tippa Irie, along with Temple of Rhythm and Boom Shaka and KROQ DJ Roberto. Tickets are \$10. There will also be arts and crafts booths. 7:30 pm at the CSUN Student

Southwest Museum Exhibit

The Southwest Museum has brought a new exhibit to the showcases of Parsons-Gates this month. The pieces selected reflect the Legacy Show currently at the Southwest, consisting of masks, sculpture, serigraphs, and prints by and about Northwest Coast Indians. The Legacy Show, from the Provincial Museum in Victoria, B.C., focuses on the work of contemporary artists, but includes some late 19th century pieces.

Ebell Scholarship

Undergraduate students living in Los Angeles County who have a minimum GPA of 3.25 are eligible to apply for the Ebell of Los Angeles Scholarship. Further information and applications are available in the Financial Aid Office, 12-63. Deadline is

Attention Writers!

The Literature Faculty is proud to announce the 41st Annual McKinney Competition. The Mary A. Earl McKinney Prize is awarded each year for excellence in writing. Only full-time students officially registered at Caltech as undergraduates are eligible to enter the competition. This year three prizes will be given in three categories: poetry prose fiction, and non-fiction essays. All submissions must be typewritten and doublespaced. In the poetry category, entrants may submit up to three poems. Submissions of prose fiction should not exceed 12,000 words. Essays may be ones prepared for a humanities class or any good piece of original writing on a topic relevant to the humanities. The prize in each category will

Each student is entitled to only one entry in each category. All contestants must submit their work to Professor Jenijoy La Belle, Division of the Humanities and Social Sciences, by no later than 30 April 1987. No entries will be returned. Each category will be judged by a three person committee from the Literature faculty. Essays will be judged on the quality of thought and the effectiveness of the writing. Winners will be announced the last week of May. The names of the winners will appear in the commencement program. There will be an Awards Banquet on May 28. The Committee may divide the award in each category in case of more than one outstanding essay. Previous winners in any one category are not eligible for the competition in that

If you have any questions, contact Dr. La Belle, x3606, or Betty Hyland, x3609.

Money From Space

The Students for the Exploration and Development of Space are offering \$1,000 scholarships for 1987-88. Anyone majoring in the sciences, engineering, economics, psychology, or any space related field are eligible to apply. For more information send a self-addressed, stamped envelope to: SEDS Space Scholarship, 77 Massachusetts Ave., Room W20-445, Cambridge, MA 02139. Application deadline is May 1, 1987.

Money for Men

Seniors planning on attending graduate school in California or current graduate students can apply for the Jake Gimbel Scholarship Loan. It is a 10-year maturity loan for \$2,000. To be eligible you must be male and a U.S. resident. Applications must be returned to the Financial Aid Office, 12-63, by May 15. Further information is

Still More Money For Women

The Business and Professional Women's Foundation has two financial aid programs available. The Loan Fund makes loans for \$500 to \$5,000 available to women in their final two years of any engineering program. The Scholarship Program is for women 25 years or older in the last two years of their program of study and show financial need. These awards range from \$500 to \$1,000. Deadline is May 1. Further information is available in the Financial Aid Office,

Chess Tonight

The Caltech Chess Club meets tonight. In fact, it meets every Friday night at 7:30 pm in 27 Gates. Bring your chess equipment (boards, sets, clocks) if you have any. All in the Caltech community are welcome. For more information call 578-9294 and ask for Huy Cao.

A Suitable Title

The Body Glove Easter Classic - a professional surfing and body boarding contestwill be held at the Hermosa Beach Pier this weekend. The contest will be held all weekend, with the finals Sunday beginning at 7AM. For more info, dudes, call Dive and Surf at (213) 372-8423.

Work in France

The French-American Chamber of Commerce in the United States has internships available for American students interested in working in France. Internships can be just for the summer or for an entire year. Participants must be seniors or graduate students and be either U.S. citizens or permanent residents. Come by the Career Development Center, 08 Parsons-Gates, for more information.

The Zenith Z-159 Bundled PC. It beats all-nighters.

Get some shut-eye with the help of this fully-loaded Zenith PC Bundle... now at a Special Student Price!



Now you can finish your classwork in no time with this speedy Zenith Z-159 Bundled PC. It's another reason why more and more students and faculty are turning to Zenith for the PCs that take you from college to career.

The IBM PC-Compatible Zenith Z-159 PC:

- A Zenith ZVM-1240 Monochrome Monitor**
- A Hercules-compatible video card for high resolution text and graphics capabilities
- Compatibility with virtually all IBM PC® software 512K of RAM—expandable to 1.2MB on
- memory board
- Dual speed "zero wait-state" technology for increased speed and performance
- And the 20MB Hard Disk version comes complete with Microsoft Windows® software at no

Dual Drive Special Student Price: \$1,049.00

20MB Hard Disk Special Student Price:

\$1,449.00

So don't lose any sleep over your classwork...get your Zenith Z-159 Bundled PC today at:

Zenith Data Systems Alex Rush 231-695-0721

Special Student Prices are also available on these other exciting Zenith Personal Computers...



Zenith Z-148 Desktop PC **Dual Drive** Hard Disk Special Student Price

\$799.00 \$1,999.00





1.2MB Single Drive Special Studen.

20MB Hard Disk

Condent Price \$1.599.00 \$2,299.00



Zenith ZVM-1220 Less distorted viewing *High resolution Special Student Price \$99.00

*Monitor not included in prices **Ask about our color monitor option

© 1987, Zenith Data Systems



\$999.00



CALTECH public events

"THE ORIGIN OF OUR MOON" TOPIC OF WATSON LECTURE

Dr. David J. Stevenson will give a free Earnest C. Watson Caltech lecture entitled "The Origin of Our Moon: A Big Splash" Wednesday, April 22 at 8 p.m. in Beckman Auditorium.

Despite the Apollo missions, the origin of our moon remains mysterious. Recently, renewed attention has been given to the possibility that the primordial Earth was hit by a body at least as big as Mars, with the resulting splash of molten and vaporized rock providing the material for making the moon.

In this talk, Dr. Stevenson will explain why this is a reasonable idea, how it might work and what implications this scenario has for our understanding of the moon, the Earth's interior and the role of catastrophies in planetary evolution.

On Friday, April 24, the Men's Glee Club directed by Donald Caldwell will be joined by the Men's Chorus of UC Santa Barbara in Stravinsky's "Oedipus Rex." This free performance will begin at 8 p.m. in Dabney Lounge.

Numbering over 80 voices, the chorus will be joined by soloists and faculty from the ucsb graduate opera program under the directon of Professor Carl Zytowski.

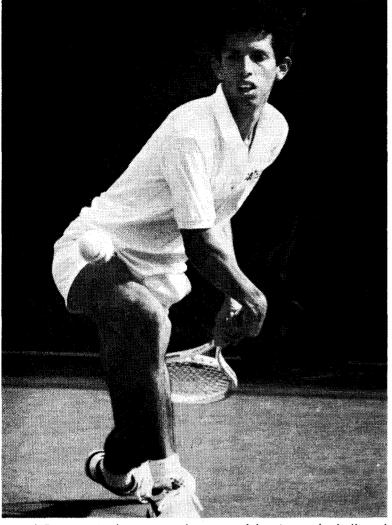
Landis and Company Theatre of Magic is coming to Beckman Auditorium Saturday, April 25 at 8 p.m. The classical tradition of vaudeville is combined with the most modern magic of today's stage. And you won't forget the dazzling illusion using lasers!

CIT student tickets for this performance are priced at \$8.75-7.50-6.25; rush tickets go on sale the day of the event for \$6.00. CIT faculty and staff may purchase TECHTIX for the same price as CIT student tickets on Friday, April 24 between noon and 4:30 p.m. at the Caltech Ticket Office.

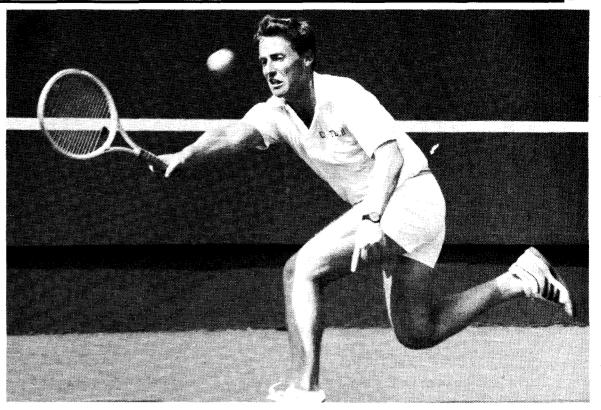
Chamber music ensembles from around the country compete for prizes in the 41st annual Coleman Chamber Ensemble Competition. The winners will perform Sunday, April 26 at 3:30 p.m. in Ramo Auditorium.

Student tickets to the concert are priced at \$3.00. General Admission is \$6.00.

For further information about the exciting Public Events scheduled this season, call campus ext. 4652.



David Garza (#4) takes an easy but powerful swing at the ball, and makes his opponent work hard to chase it down.



Caltech's number one player Mark Holdsworth races frantically to pick up a well-hit ball, making a difficult shot look simple and graceful with a combination of finesse and form.

Beavers Battle Well

by Tung Yin

The Caltech Men's Tennis Team drove to the San Diego area to play against Point Loma last Saturday, only to lose by a very respectable 4-5. Coach Jackson was pleased with the level of play of the Caltech team, especially the first doubles team of Raleigh Chiu and Mark Holdsworth, who won their difficult match.

The team plays Point Loma again this Saturday at home. If the team plays well, a 6-0 sweep of the singles matches is possible.

On Tuesday, the team faced the Claremont-Harvey Mudd racket-swingers at home. The team put up a good effort, but the Claremont team is ranked among the top ten

Division Three tennis teams in the country. Still, Mark Holdsworth (#1) played very well and forced the second set of his match into a tiebraker. It was a very respectable showing since his opponent is ranked high among the Western Division Three players.

On Tuesday, the team will play Cal State Bernadino at home, and on the next Saturday will be a final match against La Verne at La Verne. The SCIAC tournament will be held on 1 May and 2 May, at Caltech.



This return has Raleigh Chiu (#2) completely off the ground as he swings his racket at the ball with a western grip.

Law Offices of

Denise M. Breakman & Associates

IMMIGRATION

1101 E. Garvey Ave., #104 Monterey Park, CA 91754

Consultation ask for: Attorney Stuart Folinsky Paralegal Miss Ding

Tel: (818) 573-3700

WEEKLY SPORTS CALENDAR

Day	Date	Time	Sport	Opponent	Location
Sat.	4-18	10:30am	Tennis (W)	College of St. Benedict	Caltech
Sat.	4-18	12 NOON	Baseball	Claremont-Mudd	Caltech (2)
Sat.	4-18	2:00рм	Tennis (M)	Point Loma	Caltech
Mon.	4-20	1:00рм	Golf	Claremont-Mudd	Occidental
Tue.	4-21	3:00рм	Baseball	Claremont-Mudd	Claremont-Mudd
Tue.	4-21	3:00рм	Tennis (M)	Cal State San Bernardino	Caltech
Wed.	4-22	3:00рм	Tennis (W)	Pomona-Pitzer	Caltech
Thu.	4-23	3:00рм	Baseball	Pomona-Pitzer	Pomona-Pitzer
Fri.	4-24	TBA	Track	Pomona Invitational	Pomona-Pitzer
Sat.	4-25	11:00ам	Tennis (W)	La Verne	La Verne
Sat.	4-25	12 NOON	Baseball	La Verne	Caltech (2)
Sat.	4-25	2:00рм	Tennis (M)	La Verne	La Verne

FREE DELIVERY



PIZZA

Happy Hour
Beer on draft and wine

1/2 price
Free refills on soft drinks

ITALIAN FEAST FOR TWO

Small Cheese Pizza 2 Dinner Salads 2 Spaghetti

\$6.99

CALL 792-5984
524 S. LAKE AVE. PASADENA
Just north of California

ALL YOU CAN EAT SPAGHETTI AND GARLIC BREAD \$2.99

15% DISCOUNT WITH STUDENT ID

\$2.00 OFF

any 16" pizza or \$1.00 off any 12"

ONE COUPON PER PIZZA.
COUPON EXPIRES 5-I-87

FREE

6-Pack Soda with minimum \$8.00 order

NOT VALID WITH ANY OTHER COUPON OFFER.

ONE COUPON PER PIZZA.

COUPON EXPIRES 5-1-87

\$3.00 OFF any 16" pizza minimum of 3 toppings

NOT VALID ON ANY SPECIALS OR WITH ANY OTHER COUPON OFFER.

One coupon per pizza.

Coupon Expires 5-1-87

LAEMMLE THEATRES

ESQUIRE

2670 E. Colorado Blvd. (818) 793-6149

3 Academy Awards

ROOM WITH A VIEW

plus

Academy Award Winner

ROUND MIDNIGHT

COLORADO

2588 E. Colorado Blvd. (818) 796-9704

3 Academy Awards

HANNAH AND HER SISTERS

plu

Academy Award Winner Best Actress - Marlee Matlin

CHILDREN OF A LESSER GOD

WHAT GOES

Announcements for What Goes On must be submitted on an announcement form (available outside 107 Winnett) or on a plain piece of paper. Please indicate the date(s) you want the announcement to run. Send announcements to 107-51, or put them in the mail slot in the door of

Announcements must be received by the Tuesday prior to publication.

BOC, BOC, Never Stop

"If I were on the BOC... ." A lot of people have been discussing the Honor System and the Board of Control. The Board of Control now have an opening for a Representative at Large. Sign-ups for nominations to the position will be posted near the mailboxes in each house (including Marks House and the four Hovses), and will come down on April 19. The first round of interviews is on Monday, April 20, and the second round will probably follow on April 22.

GSC Annual Meeting

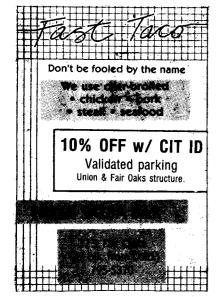
In accordance with the GSC By-Laws, the GSC Annual Meeting will take place at noon on the first Thursday in May, which is May 7th. The meeting will be held on the second floor of Winnett, in Clubroom 1. All Caltech graduate students, as members of the GSC, are invited to this meeting to voice any questions or concerns they may have.

ASCIT Appointed Offices

Sign-ups for the offices of Election Chairman, Little T Editor and Business Manager, Big T Editor and Business Manager, Totem Editor, California Tech Business Manager, Coffeehouse Manager, Executive Committee, Athletic Committee, and Communications Director are on the MOSH's door and come down Monday April 20. Interviews will be scheduled for April 21.

Summer Contracts

Summer Contracts are now available in the Master's Office. Deadline is May 15.



CLASSIFIED

HELP WANTED-

DONORS NEEDED for off-campus sperm bank. Earn up to \$105 /wk. For info. call (213) 553-3270.

EXCELLENT INCOME for part time home assembly work. For info. call 504-641-8003 Ext. 8738.

STUDENTS ARE NEEDED to develop educational software for Biology this summer. No biology background is required. Minimum requirement is the ability to program in C. Hours are flexible. Contact Dave Chan 356-3827.

SERVICES -

WORD PROCESSING by Mary. Accurate, reliable, reasonable. Fast turnaround. Call evenings (818) 794-9839

WORD PROCESSING for all your needs. Reports, resumes, school work. Professional, fast accurate. Low rates. Pick up & Delivery. Call 449-1126.

INSURANCE WAR! We'll beat anyone's prices or don't want your business. Sports cars, multiple tickets, good-driver discounts. Request "Caltech Plan." (818) 992-6966 or (213) 873-3303.

CALTECH BOOKSTORE-

GARY LARSON'S new Far Side book now available at the Caltech Bookstore!

RATES.....\$2.50 for first 25 words; ...10¢ for each additional word. Send written ad with payment to 107-51. No charge for on-campus lost & found.

1987 Camp UCC's

The Deans are interested in hearing from you if you would like to attend Freshman Camp as a U.C.C. and have not already been chosen. Submit a brief written description of your unique qualifications (campus activities and why you want to go) to the Deans' Office (102 Parsons-Gates) by Monday, April 27th. We hope, with your help, to add to the diversity of the Camp experience for freshmen.

Plant Those Cookies!

Home baked cookies available at the annual Caltech Service League Plant and Bake Sale, Friday, April 24 from 8:00 am to 1:00 pm on Winnett Patio. All proceeds go toward projects to benefit Caltech students.

Ben Rosen Day

Ben Rosen (BS/EE '54) has been invited to spend Tuesday, April 28th with Caltech students. He is a partner in Sevin Rosen Management Co. - a venture capital firm that specializes in computer, electronics, telecommunications, and other technology start-up companies. Rosen was a founding

director of Lotus and is Chairman of the Board of COMPAQ Computer Corporation. Rosen is interested in Caltech's educational computing program. His donation of \$500,000 in 1985 is credited with promoting

p.c. availability and use Institute-wide. Rosen's visit, sponsored by AMETEK's Noland Leadership Fund, will include a talk at a special lunch in Lloyd House courtyard, a reception from 5 to 6 pm in the Fleming-Ricketts courtyard, and dinner in Fleming. The lunch and reception are free and open to all students. Stop by the MOSH or Deans' Office to sign-up for either or both.

Disbursements

The Caltech Student Investment Fund has funds to disburse to student clubs for the 1986-87 academic year. The funds should be used for the purchase of equip-ment that will have a lifetime of several years. The funds cannot be used for travel expenses or for purposes of a transitory

If your club has a need that fits the above requirement, please send a proposal to either Wesley Boudville, c/o The Caltech Y, or

Alex Becker, c/o Page House.

The proposals should be received by 30 April.

Desirable San Raphael Hills location 3 Bedroom, 13/4 Bath plus bonus room. \$220,000 Lovely La Canada view home

PASADENA SCIENTIFIC

& TECHNICAL BOOKS

We Stock Scholarly & Professional Books in:

ENGINEERING - HANDBOOKS - SCIENCES - MATH AEROSPACE - COMPUTERS - BUSINESS - CODES NURSING - PSYCHOLOGY - ARCHITECTURE - DESIGN

- We Specialize in:

PHONE ORDERS

1388 E. WASHINGTON BL. - PASADENA

ERY • SPECIAL

Bedroom plus family room \$249,000 Charming La Chada home with pool 50LD to school 3 Bedroom 4 Bath \$228,000

located on quiet cul de sac. 4

Call Stephane Strode 795-7423 or 790-8300 MacGregor Realty Inc.

M-Thur. 9-6 Fri. 9-5

Saturday 10-4

Pre-Med Students

Frank M. Griffin, M.D., Director of the M.D./Ph.D. program at the University of Alabama School of Medicine will discuss their program. Please attend! Caltech Student Health Center Lounge, April 20 at 4 pm. For further information contact Marlene Coleman, M.D. at x6393.

Is It A Garage Yet?

Well...No, not yet, but we're working on it. The next meeting of the Student Garage Steering Committee will be next Thursday at noon in the Y Lounge. We will be discussing work that needs to get done on the building, what tools we want to buy, and where we'll get the money. This is an excellent opportunity to learn some management skills, get involved and make a difference. We need your help and suggestions so bring your lunch and stop by. The Y is located on the second floor of Winnett Student Center. If you can't make it or want more information contact Ralph Wolf at x6830 or David Stevens at x3771.

The Student Garage will be open to all members of the Caltech Community including undergrad and grad students, staff and faculty. We will be offering a fully equipped auto shop for the Do-It-Yourselfer starting this fall. Watch for it!

GSC Softball

It's time to start organizing for summer softball! Whether you are an awesome player or barely coordinated, there is a place for you in GSC Softball. So start recruiting, and get together a team!

There will be an organizational meeting at 6 pm on Thursday, May 7th, in the basement of the Athenaeum. Each team must send one representative. Individuals seeking a team to join should also show up at this meeting. Contact Patti Pratt, GSC Sports Commissioner (x6718, 202-6), for further information.

Darkroom Users

The South Houses Darkroom has been demolished, and most equipment was moved to the North Houses darkroom. However, the big Beseler 4" by 5" enlarger that used to be in the South darkroom has vanished. If anybody out there knows its whereabouts, please call Mark Looper at 304-0006 so we can move it North.

Sam Custom Tailor

49 NORTH ALTADENA DRIVE **PASADENA** (818) 793-2582

> **ALTERATIONS** RESTYLING **TAILORING** INVISIBLE REWEAVING

Special rates for Caltech/JPL community

Win A Trip To Mars

Caltech Merit Awards

\$11,000 each.

Each year the Scholarships and Finan-cial Aid Committee awards a number of

Merit Awards to the most academically

talented of the Institute's freshmen.

sophomores and juniors. Merit Awards are

based on outstanding scholastic achievement

as demonstrated by exceptional performance

in formal classes and/or in independent

research, and not on financial need. Last

year the Committee recommended 36 Merit Awards at \$8,000 or \$10,000 each. This

year the Awards will range from \$8,500 to

cial Aid Office at 515 S. Wilson. The

deadline for submitting completed applica-tions to the Financial Aid Office is May 15,

Gay/Lesbian Discussion Group

Gay/Lesbian topics is held every *Thursday* evening from 7:30-9:45pm at the Archibald

Young Health Center. All members of the

Caltech community are welcome. Refreshments are provided. For further information

Well, actually, only as far as Boulder,

please contact Bruce Kahl, x6393.

An ongoing discussion group on

Applications are available in the Finan-

Colorado for the upcoming conference about Mars, but it's close. Anyway, The Planetary Society (home of Carl Sagan, Arthur C. Clarke and a host of other notables) has a Mars Institute which is sponsoring a student essay contest. The prizes include money and a round trip to Boulder this summer. The topics are:

1. Consider the technological capabilities of the various space programs of the spacefaring nations. Design an international Mars mission (any mission from a sample return/rover to development of a full Mars base) that uses these capabilities in a synergistic wav.

2. What are the social, political and economic benefits and problems with an international mission to Mars? How might the problems be overcome and the benefits maximized?

Groups of students may work together, however this will be considered in the judging. Entries must be submitted by May 1, 1987. The winner will be selected by May 30, 1987. Entries to, and information from: Mars Institute, The Planetary Society, 65 N. Catalina Ave., Pasadena, CA 91106 (yes, you can walk there from here). Entries must include the name, address and summer telephone number of the entrant(s) and the name and address of their school on a cover page. All entrants will receive some

interesting free stuff.

Rag Time On Green) RESALE CLOTHING

WOMEN M-Thurs. 10-5, F-Sat 10-3 (818) 796-9924 1136 E. Green St., Pasadena

AIDS Awareness Day

The Caltech Health Center and the Caltech Y will co-sponsor an AIDS Awareness Day for the entire Caltech community on Monday, April 20, 1987. Centerpiece of the program will be a guest lecture by Dr. Michael Gottlieb, the Clinical Immunologist credited with the first report of the disease AIDS to the CDC (Center for Disease Control) in 1981. He is also Chairman of the Scientific Policy Committee for the American Foundation for AIDS research, and the first physician to study the drug AZT in California. The lecture to be held in Baxter Lecture Hall will begin at 11:30 with preliminary comments by Dr. Bruce Kahl and Lori Mulvany of the Health Center. In addition of Dr. Gottlieb's presentation there will be a roundtable discussion on AIDS at 7:30 pm at Winnett Center, including representatives of the Deans' and Masters' offices, Dr. Kahl and Ms. Mulvany, and individuals involved in AIDS education. The evening event will be an informal opportunity for students and others of the community to talk about their con-cerns regarding the AIDS epidemic. At Winnett Center there will also be available throughout the day information on safe sex, printed AIDS information and free condoms.

Wind Ensemble Concert

The Caltech Wind Ensemble will present a concert this coming Tuesday, April 21, at 8:15 pm in Thorne Hall on the Occidental College campus. Guest conductor for this concert will be composer William Hill, who will conduct his own composition, "Norman Rockwell Suite." Also on the program will be a band arrangement of the famous choral work, "Carmina Burana," by Carl Orff. The concert is free and open to the public.

\$\$\$ For Fun, Fantasy

Can you describe a \$300 program for your personal enrichment-social or cultural? 500 words (neatly written) may bring you this very sum from the Don Shepard essay award. Three prizes will be given. Please bring your fun-filled essays to the Master's Office before May 15, 1987.

Do You Want Money?

Positions are available for work study (\$5/hour) or volunteers at the Red Door Café. Inquire or leave message at the Red Door (x6158) or x6692.

Fabulous Prizes!

The Children's Center at Caltech is having its 7th Annual Spring Fundraiser drawing on Friday, May 8 from 5 to 7 pm in Winnett Student Center. Tickets are on sale now each day at noon outside of the Bookstore, or by calling 356-6860. Drawing tickets are \$2.50 each.

continued on page 6

ACADEMY BARBER SHOP

27 No. Catalina, Pasadena Open Tues .- Sat., 8 A.M.-5 P.M. 449-1681



PARIAN TRAVEL

Caltech Officially Approved

Most courteous, economical and efficient service for your official and personal travel needs. Free service to you.

For an introductory offer a complimentary \$50.00 worth of fine dining checks will be offered with the irchase of min. \$100.00 travel tickets (one per family)

(818) 577-8200

468 S. Sierra Madre Boulevard, Pasadena

CALTECH

PASADENA, CA 91125

1/3 OFF STUDENTS Shampoo, Style Cut

> MEN Reg. \$18.00 NOW \$12.00 WOMEN Reg. \$22.00 NOW \$15.00

449-6967 1009 E. COLORADO • PASADENA

The California Tech is published weekly except during examination and vacation periods by Associated Students of the California Institute of Technology, Inc.