Fan agreement to negotiate 50% cuts in the arms race in the interim. According on INF in the last few years.

Club Questionnaires: These organizations have been funded too much or not enough and their funding from ASCIT. We strongly encourage you to give us your opinions as to whether the allocations made toward achieving these goals, Stafford outlined the current U.S. and Soviet positions in the negotiations, noting areas of agreement and disagreement, and then fielded questions from the audience of 18.

The three major divisions of the talks are the negotiations on strategic offensive arms, including inter-continental and sub-Launched ballistic missiles and heavy bombers; this segment is called the acronym START. The INF negotiations cover Intermediate-range Nuclear Forces, those of less than inter-continental range, primarily deployed in Europe. The major examples are the U.S. Pershing II and ground-launched cruise missiles and the Soviet SS-20.

The third division of the talks deals with defense and space arms, and focuses on the Strategic Defense Initiative and parallel Soviet efforts. While all three areas are the subjects of continuing negotiations in Geneva, Stafford said that "the most important two meetings" in the process were the Geneva and Reykjavik summit meetings, since these directly engaged the two leaders who are ultimately responsible for the direction of negotiations and since the pressure of the approaching summit spurred progress in the ongoing talks in each case. It was on these results of the two summits that Stafford focused.

The Geneva summit produced an agreement to negotiate 50% cuts on the two sides to try to reach an agreement on INF in the interim. The major remaining issue to be settled in the START negotiations was that the U.S.S.R. wanted to include "all systems that can reach the territory of the other side"—this would have included such non-inter-continental weapons as our carrier-based aircraft.

In the INF talks, the major obstacles remaining were the questions of just what arms would be included in an agreement. The two sides agreed that nuclear and conventional weapons must be adjusted to satisfy the rated displacements, forbidden hollows in the hull, a lower bound on the length of the yacht measured two inches above the water, and, most significantly, require that the boats be built along an archetypal set of specifications which eliminate most structural innovations. Notwithstanding these limitations, Dr. Clausen devised several innovations for the new and radical boat. He found that a lighter boat with broader beams (the sail area must be adjusted to satisfy the rated displacement) would be more flexible in the equation of rated length. Dr. Clausen found that aerofoils, as on airplanes, a slotted sail, and a prorobics on the bow all improved performance. The radical boat performed spectacularly in tests.

However, the rules for the contest there is a clause which allows a boat to be challenged as peculiar. The International Yacht Racing Union has a task to judge such a case. The I.Y.R.U. has a difficult job. The boat could be a reasonable speed or it could be "good for the sport. "So the idea may not be adopted on the grounds that the boat could be "not good for the sport."
Newman Center Vague on Vega

To the Editors:

I was ashamed at the sham presented [11 February] by the Newman Center and the Y under the guise of the "real story" about what is happening in Nicaragua. In the flimsy for the Editorial Board, Pablo Vega, his sponsors billed him as "a voice of truth and moderation" who is "not a representative of, nor identified with, the Sandinistas nor the contras." They claimed that his "credentials in representing the people" are that he was called a "Red Bishop" by the Sandozma regime and was booted out of the country by the Sandinistas. (These are credentials?) Let's take a look at Vega's record. In early March of 1986, he attended a meeting of the Heritage Foundation in Washington where he accused the Sandinista government of persecuting the Church, conferred with contra leaders, and endorsed the idea of invasion. Several days before this meeting, he issued the following: "I hope that the contra movement will not simply toss out of our country. (A good example is the recent FBI roundup of 8 Los Angeles area Palestinian students, under the thinly veiled guise of national emer­ gencies, for simply being associated with a radical Palestinian group. Heck, the Palestinians don't even want to overthrow the United States—they simply want to negotiate with our good friend Israel to get a place to live.) In any case, the part about Vega not being identified with the contra is a blatant lie and I'm sure that the sponsors of his lecture allowed him to be billed this way. Is it possible they didn't know Vega was a contra supporter? It isn't a deep, dark secret—I con­ firmed personally with several different sources before I sat down to write this.) Were't they a little cautious as to why he was expelled by the Sandinistas? The editors of the fact that the number of prison cells in the Nicaraguan city of Juigalpa has risen since the revolution. In noting this fact, however, Vega did point out that it is not the case that all the political prisoners are in Sandinista hands. I have no doubt that the Sandinista regime engaged in widespread slaughter of political prisoners as the Somozia regime did, but it is not a deep, dark secret—people can now expect to learn how to read and write—the illiteracy rate has dropped from 67% to 14% since 1982. Vaccinations against childhood diseases have become routine, and polio has been eliminated. The government is striving to improve food supplies, medicine, and education despite the economic difficulties due to the continuing contra war. When asked about the human rights record of the contra movement, Vega avoided condemning them outright but did skirt the issue by asking "Why would they kill their own people?" They would kill their own people because the Sandinista regime is following instructions in a CIA-supplied 'terror­ rist manual' calling for acts of terrorism against Sandinista programs work­ ers, teachers, doctors, nurses, techni­ cians, etc. As of last year, for whatever reasons they have, the contras had murdered 103 teachers, 103 technicians, 293 medical profession­ al, 453 medical technicians, 3 nurses, as well as close to 900 children. Even if Vega's claim that many of these deaths were caused by the Sandinistas and blamed on the contra is true, I do not think that even Vega will claim that the con­ tra's hands are entirely free of the blood of innocent people. Besides being murderers, the contra are documented thieves (the General Accounting Office testified before the House of Representatives that almost half of the money allocated to the contras in 1985 cannot be "safeguardedly accounted for" i.e., was embezzled) and drug dealers (the U.S. government returned $36 million of money confiscated in a California cocaine arrest to one of the contras after receiving a letter from contra leaders stating that the money was "political money for the reinstatement of democracy in Nicaragua.")

In the past, I have looked to religious figures to promote peaceful, nonviolent resolutions to the Nicaragua conflict. Bishop Vega advocates prolongation of the conflict and continued violation of the "international law by supporting U.S. military aid for the contras. A negotiated end to the conflict would save countless lives, ease the economic hardship that is causing children to die, and give the Sandinistas a chance to relax their restraints on the Nicaraguan people. Why not try to achieve a compromise?

"Ann Teresa Heil 206-41 e4594"

THE CALIFORNIA TECH
Volume LXXXVII • Number 19 • 27 February 1987

EDITORIAL BOARD
Ken Hays • Mary Keating Jennifer Low
EDITORS-IN-CHIEF
Jen Peter Alfika
PHOTO EDITOR
Jens Peter Alfke
SPORTS EDITOR
Steve Bard
ANNOUNCERS
Josh Kurtz
REPORTERs
Huy Cao • Giimbildns
The INSIDE world
Blacker: Alex Wei
Dabney: Stanley Chen
Fleming: Ed Zanelli
Lloyd: Keith Greaves, Ryan Patterson
Page: Marc Gladstein and Dean Wilber
Ricketts: Lisa LePome
and Gary Ludlam
Ruddock: Betsy Andrews
BUSINESS MANAGERS
David Goldreich
Gabriela Ortega
PRODUCTION
Mike Klein • Gaylon Loveless
Nick Smith • Glenn Teesler
TRANSPORT OFFICER
Jay Liske

The CALIFORNIA TECH
107–111 West State Street
California Institute of Technology
Pasadena, California 91125
Phone: (818) 566-6154
Published weekly except during ex­ amination and vacation periods by the Associated Students of the California Institute of Technology, Inc. (but primarily by the Opinion Section). The opini­ ons expressed herein are strictly those of the authors and do not necessarily reflect the views of the Editors. Letters and announcements are welcome: All contributions should in­ clude the author's name and phone number and the intended date of publication. The Editors reserve the right to edit all communications for ex­ pediency, literacy, or for any other reason they see fit. Turn in copy (preferably on an IBM- compatible) to the Opinion Section before 4 PM in a floppy disk to the Tech Office mailbox, room 107 Winnem. The deadline is 10 PM on Tuesday for Announcements, Tuesday at 8 PM for Letters. Submissions without prior arrangements have no assurance of publication.

Serving Cal Tech Since 1945
Authorized Agenies for Airlines, Hotels and Steamships

FRI DAY 27 FEBRUARY 1987

FRIDAY NIGHT MOVIE
THE MOUSE That ROARED!
Starring Peter Sellers
BAXTER LECTURE HALL
$1 for ASCIT members
$1.50 for others
NEXT WEEK: 2001

EASTEN
690 G. E. ST.
PASADENA, 91101
(between El Molino & Oak Knoll)

THE CALIFORNIA TECH

THE ME JULY

In the past, I have looked to religious figures to promote peaceful, nonviolent resolutions to the Nicaragua conflict. Bishop Vega advocates prolongation of the conflict and continued violation of the "international law by supporting U.S. military aid for the contras. A negotiated end to the conflict would save countless lives, ease the economic hardship that is causing children to die, and give the Sandinistas a chance to relax their restraints on the Nicaraguan people. Why not try to achieve a compromise?

Aaron Teresa Heil 206-41 e4594

Bishop Vega In Wonderland?
To the Editors:

"When I use a word," Humpty Dumpty said in a rather scornful tone, "I make words mean just what I choose it to mean—neither more nor less."
"The question is," Alice said, "whether you can make words mean so many different things."
"Lewis Carroll, Through the Looking Glass

In the past, I have looked to religious figures to promote peaceful, nonviolent resolutions to the Nicaragua conflict. Bishop Vega advocates prolongation of the conflict and continued violation of the "international law by supporting U.S. military aid for the contras. A negotiated end to the conflict would save countless lives, ease the economic hardship that is causing children to die, and give the Sandinistas a chance to relax their restraints on the Nicaraguan people. Why not try to achieve a compromise?

Aaron Teresa Heil 206-41 e4594

Bishop Vega In Wonderland?
To the Editors:

"When I use a word," Humpty Dumpty said in a rather scornful tone, "I make words mean just what I choose it to mean—neither more nor less."
"The question is," Alice said, "whether you can make words mean so many different things."
"Lewis Carroll, Through the Looking Glass

369 60 G. E. ST.
PASADENA, 91101
(between El Molino & Oak Knoll)

THE CALIFORNIA TECH

THE ME JULY

In the past, I have looked to religious figures to promote peaceful, nonviolent resolutions to the Nicaragua conflict. Bishop Vega advocates prolongation of the conflict and continued violation of the "international law by supporting U.S. military aid for the contras. A negotiated end to the conflict would save countless lives, ease the economic hardship that is causing children to die, and give the Sandinistas a chance to relax their restraints on the Nicaraguan people. Why not try to achieve a compromise?

Aaron Teresa Heil 206-41 e4594

Bishop Vega In Wonderland?
To the Editors:

"When I use a word," Humpty Dumpty said in a rather scornful tone, "I make words mean just what I choose it to mean—neither more nor less."
"The question is," Alice said, "whether you can make words mean so many different things."
"Lewis Carroll, Through the Looking Glass

369 60 G. E. ST.
PASADENA, 91101
(between El Molino & Oak Knoll)
Searching

COPIES

SALES 818 449-1590
2341 E. Foothill Blvd. Pasadena
I block West of Sierra Madre
Computer Furniture & Accessories Home-Office

I have learned that after reading the article: an excellent article in the Christian Science Monitor. "Church-state relations hit a new low in Nicaragua." When I mention the contras, I mean the armed counter-revolutionaries. Here are some of the conclusions I reached after reading the article:

- Bishop Vega was accused by the Sandinista government of campaigning in favor of the United States after reading the article: "Popular Church" has campaigned against contra fighters. "Oh, by the way, Huy Cao failed to report Bishop Vega's charge that AI is an organization that has been infiltrated by the communists. Everyone who has read AI's reports on countries ranging from the Soviet Union to Chile knows of AI's impartiality.

- Let me finally thank the Caltech Newman Center for offering an opportunity to explore career options. The event is designed to give students the opportunity to talk informally with representatives of organizations that are willing to hire scientists and engineers who choose not to do military research. Companies and agencies that will be represented include Procter and Gamble, Hewlett-Packard, the City of Los Angeles, Bell Industries, and others. In addition, information on alternatives to working in the military industry will be available.

- As a footnote, according to the Christian Science Monitor (2/12/87), "The Roman Catholic Church's radio will be allowed to operate in Nicaragua and two expelled priests (Bishop Vega and Mgr. Carballo) could be allowed to return to Nicaragua, a top Sandinista official said, "so long as they obey the law." Yes, there is political persecution in Nicaragua. In April 1986, Amnesty International released, not a new report of human rights against the contras, as presented by Huy Cao, but rather a 36-page report documenting the human rights record in Nicaragua since the fall of the Somoza government in 1979, 5 pages of which are related to the contras. AI’s concerns in this report is: the pattern of frequent, although generally short-term, imprisonment of prisoners of conscience; prolonged pretrial incommunicado detention of political prisoners, and restrictions on their right to a fair trial; and poor prison conditions for political prisoners." AI has found "no evidence of widespread torture" on the part of the Sandinista government. About the contras: "Since 1981, AI has also been concerned about the frequency of reported torture, mutilation, and execution-style killing of captives by irregular military forces opposing the Nicaraguan government."

- While this upscales the high social prestige of civil servants, it keeps many Caltech students from these positions. Others may wish to avoid the secrecy, security checks, over-specialization, and political instability associated with Department of Defense contracts.

- For many students, the fundamental question is moral: Do I want to use my skills to produce bigger and better weapons? Isn't there a more productive use in society for my talents?Whatever the reason, the Alternative Job Fair offers an opportunity to explore your career options.

- Student Pugwash is a national organization of undergraduate and graduate students and others to examining the social and ethical implications of science and technology.

- As many of the goals and interests of the organizations coincided, Caltech's STRIVE recently affiliated with the national Student Pugwash organization. For more information, please contact me, Marty St. Clair, at campus x6576.
More of the Mediator

from page 1

weapon-free world is reached such systems would be needed to protect against terrorists and madmen," said Stafford.

So where do we go next? The U.S. advocates a three-step process: first, the areas of agreement should be set out. The next phase involves leaders to serve as a firm base for, second, continuing negotiations on areas of disagreement. Once the issues have been ironed out, the third step of working out the details of the final treaty can be completed. The U.S. has presented what it regards as a clear statement of agreement and disagreement to the U.S.S.R., who are now putting together their response. Thus the Geneva talks continue.

The area of strongest disagreement has been the free, and missile defense in general, which Stafford said brought the U.S.S.R. back to the negotiating table we deploy it unilaterally. Such unilateral deployment is part of what the U.S hopes to avoid, said Stafford, since one of our goals is "to prevent an arms race in space"—an ac-
establishing defense by both sides of weapons, offensive or defensive, with no governing agreements.

Despite this, some Administration officials have been advocating early deployment of part of the system, before the end of this Ad-

administration. The criteria for any system to come out of SDI are that it be militarily effective, that it be able to survive a pre-emptive at-
tack, and that it be "cost-effective at the margin," i.e. that it cost less to compensate for new Soviet off-
vensive arms than the arms themselves cost.

The scuffle over early deploy-
ment has led to a reaffirmation of the third criterion, and to the addi-
tion of two new ones: that, in a multi-phased deployment, each phase, not just the finished system, must enhance stability, and that step one will not be undertaken un-
til the entire deployment process is mapped out and ready. Consistent with this, said Stafford, there will be no deployment during the re-
mainder of this Administration.

On the question of a test ban treaty, agreement was reached at Reykjavik on a three-step process: first, verification must be discussed and agreed upon; second, pro-
geressionally smaller limits on numbers and/or sizes of tests will be set in place in parallel with reductions of arms; and third, a full test ban treaty would be enacted as part of the final treaty on nuclear arms.

So what's holding up the process of working out the details? "You may laugh at this," said Staf-
ford, but the major obstacle re-
naming is the name of the negotia-
tors. The U.S. wants to call the negotiations "Talks on Nuclear Testing" or some such; while the U.S.S.R. wants to call them "Talks on the Ending of Nuclear Testing," which the U.S. negotiators feel is an indication that the U.S.S.R. in-
tends to renege on the second step about areas for an immediate and total test ban treaty.

So what's the prognosis? Testing must continue while nuclear arms exist to assure the credibility of our deterrent; indeed, testing demonstrated that "most of our sub-
machine warheads wouldn't have work," Dr. Stafford said. Then someone from the audience pointed out that only a small fraction of U.S. nuclear testing is actually for the purpose of reliability testing. Stafford noted that the remainder of the tests are necessary to test hardening of ground installations and other things besides the reliability of the warheads themselves.

Also during the audience ques-
tions, Stafford was asked why we should not negotiate a freeze on warheads to take effect during negotiations on cuts. He replied that a freeze is by no means as sim-
ple as it sounds. Do you freeze numbers of launchers? Of warheads? Do you include the short-range weapons that are already such a problem in the INF talks? Do you allow modernization? In short, negotiating a freeze would be every bit as difficult as current negotiations on cuts, and in any event, such a desperation measure is not needed.

Stafford pointed out that SALT II would have allowed doubling of current levels of weaponry, and took an inordinate time to negotiate. The Geneva process, on the other hand, is only two years old (since the Schultz-Gromyko talks) and is already close to hav-
ing current levels. Thus, he said, progress is being made rapidly, and he hopes for a treaty in the relatively near future.

There was a time when people only shot pictures.

Over the past three decades, use of our nation's forests has surged dramatically. But so has vandalism.

Signs blasted apart. Trees, rocks and campfires slashed. Public facilities destroyed.

What will it take to turn the tide against vandalism?

Simple determination.

A commitment to ourselves. And to our young people to help them appreciate the forest for what it really is. A priceless and unparalleled gift.

Vandalism. It's time to draw the line.

Genetics Cures Mice

(CNB) — Biologists at Caltech have cured mice suffering from an in-
herited disease in which they shiver uncontrollably and die an early death.

To cure these "shiverer" mice, the biologists placed the gene coding for a key protein involved in the insulation of nerve fibers in-
to fertilized mouse eggs, as shown in the figure on this page. When the gene, missing in the diseased mice, began to function in the resulting offspring, these offspring showed no evi-
dence of the disease.

Authors Carol Readhead, Brian Pepko, Carmiti Peckert, and Na-
oki Takahashi of Caltech; David Shine of Harvard University; Raul A. Saavedra of Caltech; Richard Sidman of Harvard; and Leroy Hood of Caltech reported their studies in the February 27, 1987 issue of the journal Cell.

Shiverer mice are a mutant strain that have lost the ability to synthesize myelin basic protein, a key component of the myelin sheath that surrounds nerve cell ap-
pendages, insulating them and speeding nerve impulses. The gene
that codes for myelin basic protein is nonfunctional in these animals. These mice begin to shiver about 12 days after birth, experience conv-
ulsions within one to two months, and die within 90 days.

In the Caltech studies, the researchers injected into fertilized
mouse eggs the gene for myelin ba-
sic protein, including additional control segments at either end of the DNA chain—a total of about 37,000 DNA nucleotides.

This gene segment had been previously inserted into a piece of viral DNA known as "comid vec-
tor," which acts as a biological cop-
ying machine to create huge num-
bers of copies of the gene.

Once inside the mouse egg, the circular comid vector opened and
inserted itself into the mouse DNA. The egg was then implanted into a foster mother, which gave birth to the treated mouse. In about one treated mouse egg out of 350, the myelin basic protein gene began to function, resulting in a cured mouse.

The cured mice showed no evi-
dence of neurological problems, and electron microscope studies of their brains by Harvard scientists Drs. Shine and Sidman revealed nearly normal myelination around their nerve cells.

So far, as many as three genera-
tions of the cured mice have been raised with no evidence of the disease, said the scientists.

"These mice will offer us a powerful new way to study the myelination process," said Dr. Hood, the Elhel Bowles Professor and Robert Bowles Professor of Biology. "Using this genetic engineering technique, we have found it possible to construct a series of mice with different levels of myelin around their nerve cells.

"What's fascinating is that we can separate the different symp-
toms of the disease by producing these mice with different levels of myelin around their nerve cells.

"This means that we can separate the different symptoms of the disease by producing these mice with different levels of myelin around their nerve cells.

Although this marks an impor-
tant advance in genetic engineer-

continued on page 5
World-Wide In Wambo

by Rob Grothe

Tacit no longer, the Theatre Arts at California Institute of Technology has transformed Ramo Auditorium into World-Wide Wambo, Inc., to show you “How to Succeed in Business Without Really Trying” and rung up the corporate ladder. Finch is the master tactician, knowing just how to appease his fellow employees; his strategies to impress Mr. J. B. Bigley (the chief oarsman of World-Wide Wambo) are quite that easy for Mr. Finch, who maneuvers his way into and out of a number of sticky wickets throughout the show.

His obstacles include Rosemary (played by sophomore Heidi Anderson), the pretty young secretary who has other ambitions—"Poty" and a home in New Rochelle; Bud Frump (Richard Doherty, recent Caltech grad) Bigley’s spoiled nephew whose aspirations far exceed his means; Hal YeRae, an associate of the boss in the business of pleasure and continually confuses business and pleasure, alluring and endangering the men of WW; and eventually the entire executive core, wary of Finch’s rapid climb.

The musical comedy will play all next weekend at Ramo: Friday at 8pm, Saturday at 2pm and 8pm, and Sunday at 2pm. Tickets are $9.50 for the public, $8 for Caltech staff, and $6 for Tech students. The efforts of the cast, the orchestra, and the stage crew have produced a terrific production, a smart investment of a couple bucks and a few hours of your weekend.

More from page 4

The achievement will have no direct consequences for the medical treatment of human genetic or neurological diseases, caution the scientists.

According to the researchers, there is no corresponding human disease, and the technique of genetic surgery on fertilized eggs is inappropriate for technical reasons for use in treating humans.

The modification of sex cells as opposed to body cells also poses ethical questions, notes Hood. The procedure is complex and has a low success rate. However, he said, the method of inserting working genes into body cells of adult suffers of genetic disease is extremely promising, and is being planned for the near future in several laboratories around the world.

The molecular biology and cloning experiments were carried out in the Braun Laboratories at Caltech and was supported by the Seaver Foundation and the National Institutes of Health.

The curse of shiverer mice by Dr. Hood and his colleagues is on December scientists at Genetech, Inc. reported curing mice of a hereditary disease that prevents normal sexual development.
from page 5

Young Sherlocks

(CNB)—Two faculty members, one graduate student, and three undergraduates of Caltech have been named recipients of the third annual Presidential Young Investigator Awards by the National Science Foundation. They are among 200 outstanding young scientists and engineers nationwide who have been selected for the honor for 1987.

The two Caltech faculty members are Dr. John Doyle, associate professor of electrical engineering, and Dr. Kenneth Libbrecht, assistant professor of astrophysics.

Established in 1984, the Presidential Young Investigator Awards are designed to help universities attract and retain gifted young scientists and engineers who are otherwise pursuing nonacademic careers. The awards carry a research stipend of up to $100,000 per year for a period of five years, through a combination of federal and matching private funds.

Dr. Doyle is developing mathematical techniques designed to improve the performance of advanced and automatic control systems in such fields as chemical engineering and aerospace. One application of his research has been to the design of the re-entry flight control system for the space shuttle.

Dr. Libbrecht conducts research in galactic astrophysics, which studies oscillations on the sun's surface to probe the solar interior, much as geophysicists use seismic waves to study conditions inside the earth. This research is expected to answer such questions as the sun's speed of rotation, interior rotation, and amount of helium near the solar core.

Dr. Doyle earned his B.S. and M.S. from MIT in 1977, and his Ph.D. in 1984 from the University of California. He came to Caltech as a visiting assistant professor in 1985 and was appointed associate professor of electrical engineering in 1986.

Dr. Libbrecht received his B.S. from Caltech in 1980 and his Ph.D. from Princeton in 1984. He returned to the Institute as a visiting associate in 1984 and was appointed assistant professor of astrophysics that same year.

The other four recipients are Robert Arnold, currently assistant professor of environmental engineering at the University of Arizona, Dr. William J. Dally, assistant professor of electrical engineering and computer science at MIT, Dr. Peter Felker, assistant professor of chemistry at UCLA, and Dr. Michael Hopkins, now of the Los Alamos National Laboratory. Dr. Felker received his Ph.D. from Caltech in 1985, and Drs. Dally and Hopkins in 1986. Arnold receives his doctorate this June.
Check It Out, Mate

by Czech Matey

"By hook or by hook," the chess team of Caltech undergrads was determined to do well in, if not win, the 1987 U.S. Amateur Team Championship West. As it turned out, the team didn't actually win. They won three of their six matches with other teams, but in the process, produced some immortal games for the chess history books!

The team consisted of chess Expert Gerard Jungman, Tim Parrott, Huy Cao, and Ed Ratner playing boards one, two, three, and four with chess ratings of 2115, 1908, 1789, and 1563 respectively.

In the first round, the team ran into difficulty, having been matched with one of the best teams in the tournament. They gave it their all, but were beaten 4-0 by their opponents whose average rating was 2181.

In the second round was a turning point for them as they won 3-1 over their opponents. Gerard, Tim, and Huy swept the first three boards, leaving their opponents pawnting. "Gee, I wonder what I did wrong."

From UC San Diego came "The Unsouled Gambits"—an appropriate name indeed—who were the fourth round opponents. They didn't know what checkmated them after they lost 3 1/2 - 1/2. Tim, Huy, and Ed played brilliant, pretty good, and hey-that's-great games (respectively)!

Gerard Jungman played one of the best players at the tournament (rated 2316) and forced him to accept a draw! For the listing of that exciting draw, see the end of the article.

Inhuman, unattackable, and unkindly describe the Techer's fifth round opponents. These players wouldn't even shake hands, and had to have someone do it for them! Actually, it was the Novag Knights, a computer team with an average rating of about 2050, that the Techer's faced. Gerard and Tim got into tactical troubles in their games and had to accept difficult losses, while Huy and Ed drew their games. The team found out the hard way that artificial intelligence is indeed improving.

In the sixth and final round the Beavers confronted "Her Majesty's Secret Service" and won convincingly 3 1/2 - 1/2. Gerard, Huy, and Ed won by crushing, crushing, and crushing, respectively, their opponents. Tim Parrott too had an advantage in his game, but because of time trouble he settled for a draw.

The team recorded a 3-3 final record, with individual scores of 2 1/2, 3 1/2, 3 1/2, and 2 1/2 for Gerard Jungman, Tim Parrott, Huy Cao, and Ed Ratner.

The result was good enough to place them first in the college division. A solid Stanford team tied them with Occidental for second place among the five colleges present (most of the teams weren't college teams). A solid Stanford team placed first in the college division.

In case you haven't heard the big news in Caltech chess, here is The Caltech chess club will be restating, and everyone is excited! If you are a beginner or a master and even remotely interested, please contact Huy Cao at 1-54 or 578-9294.

But back to that draw. Probably the best game for the Beavers is the following fourth round match by Gerard Jungman. No really, draws are very exciting! You may recall that the chess community was in shock from excitement and wonder two years ago when Kasparov and Karpov drew dozens of games consecutively! So here it is, a tense, strategic, exciting draw by Gerard. Even if you don't know how to play chess or don't know chess notation, just follow along anyway. The exclamation marks mean "wow, that's good, that's deep." The question marks mean "that's horrible." Without further ado, let's peek in on this immortal game.

White: Gerard Jungman (2115) Black: Burt Izumikawa (2316)

1. d4! (This move is perhaps not wise from UCSD, but we'll let it pass.)

This subtle move prevents penetration by the black queen. A very deep move. 18. ... Rfe8 19. Rxd5 Qxd5 20. exd5 Rd8 21. Qxd8+ Rxd8 22. Rd4 Rf8 23. Qe7 Re8?

This move is perhaps not wise for black. 24. Qe7 Rde8 25. b4 Qe6 26. Qe4 Qe7+

Black forces an exchange to prevent complications for himself. 27. Qxe6 Rxe6 28. Rxe6+ Be7 30. Bxd7

If white had gone to b5, black would gain control of d2 by way of Bb4, which might have been important because of the passed pawn down the middle.

30. ... b5! 31. bxc6 bxc6 32. Ra7

This must have been what white foresaw when he moved 32. Rd7. Instead, white should have moved 32. ... Qd6 and forced the black pawn backward. 32. ... cxd5 33. Rxd5+ Re8 34. Rxe8 Qxe8 35. Rxe7+

This check is necessary to prevent further penetration by the black king. 35. ... Kg7 36. Bd7 Rb8 37. Ra5

39. Qc4+ Rg7 40. Rexg7+ Re8 41. Kg3 Rg8 42. Ra7 draw

That was a !!! game, eh?

The team consisted of chess Expert Gerard Jungman, Tim Parrott, Huy Cao, and Ed Ratner playing boards one, two, three, and four with chess ratings of 2115, 1908, 1789, and 1563 respectively.
Runners Work Hard, But Place Third

by Steep L. Chaser

Last Saturday at Claremont-Mudd-Scripps, Caltech's exciting track team faced Occidental, Claremont, and Whitter in a SCIAC Conference quadrangular meet.

The bad news is that we took some lumps against Oxy and Claremont, both of whom defeated a much improved Caltech team. The good news is that we defeated Whitter again and were able to deliver a few lumps of our own.

In only the second meet of this very young season the performances of many of our athletes indicate that this is potentially the best track team we have seen around here in twenty years.

Dave Gates put in a full day's work by winning the Long Jump (214'4") placing second in the Triple Jump (54'7") and anchoring the 200m Relay Team. Both of his jumps are improvements by more than a foot over last week. The bad news is that Dave sprained his ankle in the process. He deserves a rest anyway as he is currently our top point scorer this season.

More Good Throws

Ed Mao showed steady improvement in the Shot Put and Discus. He had his best throw ever in the Shot to claim third place in 3611'11". While the Discus is still a new event for Ed, his potential is only limited by the amount of time he can devote to practicing his skill. He threw the discus 90'2.5".

Both Mark Carlin and Matt Cran- dall scored important points vs. Whitter as these two track newcomers continued to progress. Ray Hu shaved thirty seconds from his steeplechase time to record an impressive performance of 11:10.1s. After seven and three-fourths laps of running with thirty-five barriers to clear, including seven water jumps, Ray was looking for another race to run later in the day. Ray is one tough hombre.

John Gehring got caught up in the mental midgery gynastics being played out by some of Oxy's athletes in the 1500m race. In a nutshell, the Oxy runners were determined to drag through the race as slowly as they could afford to, while staying close enough to kick to victory in the last half of a lap.

After one lap of slow-motion, Gehring took control of the race and forced the pace trying to make up for precious lost time. This strategy seemed to backfire though, as he ran out of steam in the end to finish fifth in 4:17s. John also came back later to try his hand at some lumps against Oxy and Claremont-Mudd-Scripps, but came in third overall.

**Weekly Sports Calendar**

<table>
<thead>
<tr>
<th>Day</th>
<th>Date</th>
<th>Time</th>
<th>Sport</th>
<th>Opponent</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon.</td>
<td>3-7</td>
<td>3:00p</td>
<td>Baseball</td>
<td>Pomona-Pitzer All-Comers Meet</td>
<td>Claremont-Mudd</td>
</tr>
<tr>
<td>Tue.</td>
<td>3-8</td>
<td>3:00p</td>
<td>Tennis (W)</td>
<td>Caltech</td>
<td>Caltech</td>
</tr>
<tr>
<td>Wed.</td>
<td>3-9</td>
<td>3:00p</td>
<td>Track</td>
<td>Wildcat</td>
<td>Caltech</td>
</tr>
<tr>
<td>Thu.</td>
<td>3-10</td>
<td>3:00p</td>
<td>Tennis (W)</td>
<td>Pomona-Pitzer</td>
<td>Pomona-Pitzer</td>
</tr>
<tr>
<td>Fri.</td>
<td>3-11</td>
<td>3:00p</td>
<td>Baseball</td>
<td>Caltech</td>
<td>Caltech</td>
</tr>
<tr>
<td>Sat.</td>
<td>3-12</td>
<td>3:00p</td>
<td>Tennis (W)</td>
<td>Pomona-Pitzer</td>
<td>Pomona-Pitzer</td>
</tr>
<tr>
<td>Sun.</td>
<td>3-13</td>
<td>3:00p</td>
<td>Track</td>
<td>Wildcat</td>
<td>Caltech</td>
</tr>
<tr>
<td>Tue.</td>
<td>3-14</td>
<td>3:00p</td>
<td>Tennis (W)</td>
<td>Pomona-Pitzer</td>
<td>Pomona-Pitzer</td>
</tr>
<tr>
<td>Wed.</td>
<td>3-15</td>
<td>3:00p</td>
<td>Baseball</td>
<td>Caltech</td>
<td>Caltech</td>
</tr>
<tr>
<td>Thurs.</td>
<td>3-16</td>
<td>3:00p</td>
<td>Tennis (W)</td>
<td>Pomona-Pitzer</td>
<td>Pomona-Pitzer</td>
</tr>
<tr>
<td>Fri.</td>
<td>3-17</td>
<td>3:00p</td>
<td>Baseball</td>
<td>Caltech</td>
<td>Caltech</td>
</tr>
<tr>
<td>Sat.</td>
<td>3-18</td>
<td>3:00p</td>
<td>Tennis (W)</td>
<td>Pomona-Pitzer</td>
<td>Pomona-Pitzer</td>
</tr>
<tr>
<td>Sun.</td>
<td>3-19</td>
<td>3:00p</td>
<td>Track</td>
<td>Wildcat</td>
<td>Caltech</td>
</tr>
</tbody>
</table>

**LAEMMLE THEATRES**

**ESQUIRE**

2670 E. Colorado Blvd. (818) 793-6149
8 Oscar Nominations
ROOM WITH A VIEW
8am-4pm, Thorne Hall

**COLORADO**

2588 E. Colorado Blvd. (818) 796-9704
7 Oscar Nominations
ROOM WITH A VIEW
8am-4pm

**HANNAH AND HER SISTERS**

**Konditori PATIO RESTAURANT**

“A unique restaurant with great food at a reasonable price.”
— Elmer Dill, KABC TV

“Has a nice comfortable patio and inexpensive cuisine.”
— Paul Wurlach, 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
Runners

the 800m finishing in 2:10s. Best of all, he learned to run his own race from the start.

John Beck was concerning himself with staying one step ahead of little brother Kelly who runs for Claremont. In the tactical 1500m he cruised in at 4:16s looking like he had plenty to spare in garnering fourth place (little brother was seventh in 4:20s). For a guy who says he can't double in the 1300-800, Beck proved himself wrong by again placing fourth in the 800m in 2:10.4s.

Another Great Performance

As if that weren't enough, Beck also came back and anchored the 1600m Relay Team to a come-from-behind second place finish. After receiving the baton in last place, Beck churned out a fifty-two second quarter to demolish the teams from Oxy and Whittier down the stretch. This was done without the services of Alex Athanasopoulos who was out with the flu.

Randy Ralph outdid himself last Saturday. While playing basketball and only jumping in practice occasionally, he was able to come out the last two weeks and win the High Jump. This time though, he was inspired! On Thursday evening Ralph attended a seminar at Cal State LA with Coach O'Brien. The speaker was none other than Doug Nordquist, the number one ranked jumper in the world for 1986. And with that little bit of new information and inspiration he popped off a jump of 6'5" which is a personal best for Randy. Andrew Stevens is proving to be a dependable workhorse with a wide range of talent. In the 400m, he was clocked in at 54.63s for that place. Additionally, he sprinted to a respectable 24.86s for 200m and ran second leg for the 1600m Relay. Andrew is working hard in practice but is hampered somewhat by back spasms. He'll be tough to contend with when he gets healthy.

Konstantin Othner ran a strong 100m in 11.83s and also got both the 400m Relay and 1600m relay off to good starts. He is proving to be a valuable new addition to the squad.

Dee Works Hard

Dee Morrison once again took part in the three throwing events for women. She managed 27'16" in the Shot, 14'4" in the Javelin, and 89'11" throwing the Discus. All of her early season work will pay big dividends at the conference finals. The final scores of the men's meet read as follows:

Claremont 110
Oxy 114
Caltech 45

The Claremont and Oxy scores look depressing but both scores are at least twenty point improvements over last year's performances against these two teams.

We are looking forward to a fun meet this coming weekend at Pomona-Pitzer's New Blue Track. This will be an all-comers meet of NCAA Division III schools only. Word has it that their track is lightning fast! Look out—the natives are restless and the track animals are hungry for more.

Basketball Bout

by Sam Dunk

The Caltech Basketball team ended its season on a strange note Wednesday, as Occidental was forced to forfeit after their coach was ejected.

The Beavers started out slow in the first half due mainly to a sluggish offense. The team's leading scorer, Ed Zanelli, was held to just two points. The play of Brett Bush and Brad Scott kept the Beavers in the game, although they trailed 26-40 at the half.

But the Beavers didn't roll over, and came out fired up for the second half. Bush and Zanelli scored at will against Oxy and brought the Beavers within four points at 53-57. Oxy had the ball, and was frustrated by the tough defense being played by Caltech. A flagrant elbow was thrown at Zanelli, and a foul was called. As the Oxy player walked down court, Ed Zanelli tripped the player using the assist going to Martin Bouliette. Over all it was a great four years for these three top players, and the team would like to thank the fans for their support during a frustrating season in which the Beavers finished 6-9.

To wrap up the season the team will play the Caltech faculy. The game is this coming Sunday at 4:30PM. Come out and watch.

CSUN Eats Puck

by Jason

The mighty Caltech hockey machine continues to roll onwards. Wednesday night the Beavers went to Burbank and stomped Cal State Northridge 5-1. Though the checking was not as physical as the Oxy contest anyway as the match on Wednesday got rained out.

A fine example of blocking by Caltech's Bill Gustafson. Brett Bush looks on, prepared to rush in and do what's necessary to assure Tech a win on the floorboards. This week the game ended in a forfeit by Occidental after their coach got booted from the game for fighting.

Women's Tennis Rained Out

Laura Hernandez lines up the ball, about to smash it back to her opponent. It turned out that she didn't need this practice anyway as the match on Wednesday got rained out.

Sports Notice –

The Caltech varsity basketball team will play the infamous faculty team in an exciting faceoff this coming Sunday, 26 February, at 4:30PM. Come on out, bring a friend, and watch the last game of the year for Beaver basketball.

The mighty Caltech hockey machine continues to roll onwards. Wednesday night the Beavers went to Burbank and stomped Cal State Northridge 5-1.

A fine example of blocking by Caltech's Bill Gustafson. Brett Bush looks on, prepared to rush in and do what's necessary to assure Tech a win on the floorboards. This week the game ended in a forfeit by Occidental after their coach got booted from the game for fighting.

Basketball Bout

by Sam Dunk

The Caltech Basketball team ended its season on a strange note Wednesday, as Occidental was forced to forfeit after their coach was ejected.

The Beavers started out slow in the first half due mainly to a sluggish offense. The team's leading scorer, Ed Zanelli, was held to just two points. The play of Brett Bush and Brad Scott kept the Beavers in the game, although they trailed 26-40 at the half.

But the Beavers didn't roll over, and came out fired up for the second half. Bush and Zanelli scored at will against Oxy and brought the Beavers within four points at 53-57. Oxy had the ball, and was frustrated by the tough defense being played by Caltech. A flagrant elbow was thrown at Zanelli, and a foul was called. As the Oxy player walked down court, Ed Zanelli tripped the player using the assist going to Martin Bouliette. Over all it was a great four years for these three top players, and the team would like to thank the fans for their support during a frustrating season in which the Beavers finished 6-9.

To wrap up the season the team will play the Caltech faculy. The game is this coming Sunday at 4:30PM. Come out and watch.
Soviet Union

The Soviet Union will be conducted this August by invitation of the Committee on Eastern Europe of the International League for Human Rights. It appears that more controversial topics have been added to the agenda. Preference should be given to sessions which explore the meaning of human rights and their application in various parts of the world. Participation at this conference will provide an excellent opportunity to present your research on human rights issues. For further information please write: P.O. Box 2306, Stuttgart, Germany.

Job & Scholarship Combined

Students interested in working at Leiden Zoo, are invited to apply for volunteer positions on weekends until the end of spring term and full time during the summer will be eligible for a stipend of $1,000.00. Students earn $5.00 per hour, interested students should write to: Leiden Zoo, P.O. Box 420, 2300 AC Leiden, Netherlands. Additional information is available in the Financial Aid Office.

Societae Korentz

Los Angeles Zoos Deeple provides tours to the public of the Zoological Gardens in Southern California. Please contact Professor Rolf Sabersky (x4142). Tickets are $4.00 for adults, $3.00 for seniors, $2.00 for children and $1.00 for students, with a maximum of $10.00 per family.

Attention Fishermen

Registration closes at 5:00 p.m. Friday, March 6. Please have your catch weighed and measured prior to weighing and measuring your catch. A sample of your catch will be taken for analysis at the University of California, Davis/Livermore Laboratory.

Next School Year?

Think about the time and energy spent educating yourself. Now ask yourself to apply your new skills and continue to translate what you have learned and use them in the world. If you are interested in continuing your education, contact the Admissions Office, 123 Main Street, University of California, Davis, CA 95618.

Bike-Aid '87

Write: Bike-Aid '87, Dept. CN2, Box 2306, Los Angeles, CA 90052. The event will be held on April 12, 1987. It is an intertural exchange between foreign students and American and a part of the department orientation which helps students evaluate career opportunities. For further information please write: Bike-Aid '87, Dept. CN2, Box 2306, Huntington, N.Y. 11743. Additional information is available in the Financial Aid Office.

Political Internship

The American Internship will be available for the summer of 1987. The internship, supported by friends of Dr. Arber, will be paid with stipend of $500.00 to $300.00 available to women in their junior and senior years of college. For further information please write: The American Internship, 10 Fawcett Street, Cambridge, MA 02238.

Ethical Student

Undergraduate students living in Los Angeles, California who have a GPA of 3.25 or higher are eligible for the Ethical Student program. The program offers on-campus internships and applications are available in the Financial Aid Office.

Societae Korentz

The Student Job Fair is being conducted this August by invitation of the Committee on Eastern Europe of the International League for Human Rights. It appears that more controversial topics have been added to the agenda. Preference should be given to sessions which explore the meaning of human rights and their application in various parts of the world. Participation at this conference will provide an excellent opportunity to present your research on human rights issues. For further information please write: P.O. Box 2306, Stuttgart, Germany.

Job & Scholarship Combined

Students interested in working at Leiden Zoo, are invited to apply for volunteer positions on weekends until the end of spring term and full time during the summer will be eligible for a stipend of $1,000.00. Students earn $5.00 per hour, interested students should write to: Leiden Zoo, P.O. Box 420, 2300 AC Leiden, Netherlands. Additional information is available in the Financial Aid Office.

Societae Korentz

Los Angeles Zoos Deeple provides tours to the public of the Zoological Gardens in Southern California. Please contact Professor Rolf Sabersky (x4142). Tickets are $4.00 for adults, $3.00 for seniors, $2.00 for children and $1.00 for students, with a maximum of $10.00 per family.

Attention Fishermen

Registration closes at 5:00 p.m. Friday, March 6. Please have your catch weighed and measured prior to weighing and measuring your catch. A sample of your catch will be taken for analysis at the University of California, Davis/Livermore Laboratory.

Next School Year?

Think about the time and energy spent educating yourself. Now ask yourself to apply your new skills and continue to translate what you have learned and use them in the world. If you are interested in continuing your education, contact the Admissions Office, 123 Main Street, University of California, Davis, CA 95618.
Forge Vital Links in the National Airspace System.

Expand your scientific ingenuity with General Electric Company at the Jet Propulsion Laboratory.

The FAA is modernizing the National Airspace System (NAS) to make air traffic as smooth and as safe as possible. The General Electric Federal and Electronic Systems Division is proud to support The Jet Propulsion Laboratory (JPL) in the development of two projects that are part of the NAS: the Central Weather Processor (CWP) Project and the Voice Switching & Control System (VSCS) Project.

CWP is a computer-based, interactive meteorological data processing system that will receive weather and other types of data and then process, store and display the results. The CWP will provide timely dissemination of weather data products to air traffic controllers and flight service station specialists. VSCS will provide integrated radio and interphone/intercom services for the FAA Area Control Facilities.

Creative, innovative people are needed with the following skills. Apply now for one of these current openings with GE in Pasadena:

**Systems Integration & Test Engineers**
Three to seven years' experience with system-level integration, testing and operational test and evaluation of hardware and software data systems, real-time systems with human-machine interfaces, voice communications systems, data communications systems and traffic simulation systems. Experience with DecVAX, MicroVAX and IBM 370. Lead position available.

**Systems Engineer - Data Systems**
Five to ten years' experience in program definition, design and specification, requirements and performance analysis and trade-off studies, including at least two years of project work related to large-scale systems development and two to three years' supervisory experience.

**Requirements Test Engineer**
Seven years' experience in system-level requirements development and testing of software intensive systems at the CSCI/CSC levels. Familiarity with Military Standard documentation required: DOD STD 2167 desired.

**Design Test Engineer**
Five to seven years' experience in subsystem and system-level design development and testing of software intensive systems. Familiarity with Military Standard documentation at the CSCI/CSC levels required; DOD STD 2167 desired.

BS/BA Computer Science, Mathematics, Engineering or Physical Science or equivalent experience required for the above positions.

To apply for any of these opportunities, please send resume to: Professional Recruiting, General Electric Western Systems, Federal & Electronics Systems, 4041 N. First Street, San Jose, CA 95134. An equal opportunity employer, m/f/h/v.
LATF for the 236 794-4499 For You! ~

Caltech Officially Approved
  by projects. RESALE CLOTHING
  pm to serve its traditional fresh cof­
  PARIAN TRAVEL
  psychologists and economists. We
  Please send them to Thu Le, mail
  10¢ for each additional word.
  Greent
  DESIGN .••
  55.
  5  

Gloria in the Y Office to get your tickets.

 pecial aid applications for 1987-88

the SURF Office, Room 3 Dabney. The sti­

surveys thatused to be in the South darkroom has

whereabouts, please call Mark Looper at

Science,

905-449-6967

California residents who are applying for

sponse applications is 5:00PM, Monday, 2 March.

Tuesday and Wednesday evenings, March

Alternative Job Fair

All Caltech grad students, undergraduate students, and fellows are in­
  to serve its traditional fresh coffee service.

Launched.

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

TUESDAY, MARCH 3, 1987

CLASSIFIED

WOMEN'S Polo

WOMEN'S Polo

Women's Polo

Women’s Polo

Women's Polo

Women's Polo

Women's Polo

Women’s Polo

Women's Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Polo

Women’s Pol