

—by Graphic Arts

"We'd teach you quantum mechanics, we'd teach you the colligative properties of ytterbium oxalate, we'd teach you Jordan canonical form . . . and you still want to transfer to Slippery Rock State?"

YMCA Robbed 201 Frosh Attend Camp

BY JOE JEFFREY

The YMCA offices in the Winnett Student center were burglarized on Saturday or Sunday, September 11 or 12. The purpose of the burglary was apparently vandalism and sabotage of the Y activities, as nothing of great monetary value was taken. Stolen

were records such as check vouchers, cash receipts, financial reports for the past 6 years, mailing lists, book exchange records, notes from the student loan fund, correspondence with supporters of the Y, and even cards from incoming freshmen stating their time of arrival, while cash and \$15 worth of stamps were untouched.

As the Y offices are locked all weekend, the exact time of the vandalism is not known, but Mr. Wes Hershey, executive secretary of the Y, stated that it probably occurred at night, as there is some security patrol. Either the persons involved had keys, or they picked the locks to gain entrance to the filing cabinets.

Nuisance Value

Hershey emphasized the selectivity of the damage, stating that this indicates that the person or persons involved were almost certainly members of the student body who were quite familiar with the Y operations. However, he said that the programs of the Y will not be affected, and the vandalism was primarily of "very large nuisance value." The staff of the Y will have to make a complete search of other records that were kept in a safe in order to replace those that were destroyed, and may have to hire someone to go back over all of the older financial records to duplicate the newer ones.

Hershey said, "What disturbs me most is that . . . for the first time there apparently are on campus those who consider themselves above the law. Not liking the activities of the Y, they decided to do something about it."

Hershey stated that the persons involved left several clues behind them, all of which are in the hands of the Pasadena Police Department. He further reported that the police are doing everything possible to catch the culprits, but declined to name these measures.

BY KEN KAMM, FROSH

Frosh camp begins today for the 201 would-be trolls entering Caltech this year. Following registration at Caltech in the morning, the valiant 201 will hopefully arrive at Camp Radford in the San Bernardino Mountains, to be greeted by Foster Strong, Dean of Freshmen; Paul Eaton, Dean of Students; and Fred Brunswig, President of ASCIT, the student body organization.

Camp is planned so as to afford the "dumb frosh" with information concerning life at Tech. President Lee A. DuBridge will present the school in perspective with "Caltech — Past and Present." The frosh's abysmal ignorance will be further illuminated by Gordon Myers, ASCIT Vice-President, in reviewing Caltech's Honor System. Senior Jerry Yudelton will present a student's view of Caltech. Added attractions will include Dr. Ralph Miles, supervisor of JPL's Voyager systems design group, who will discuss the "Mariner Mission to Mars," and Admissions Dean L. W. Jones, who will speak about the abolition of freshman grades at Caltech.

Important Part of Camp

Camp won't be all work. Included in the fun schedule are wondrous games of mountain golf, a cross between golf and croquet. Students will match their skill with that of the faculty, at the same time meeting and getting to know each other. Volley ball and tennis will also be played in the lush, cool (temperatures in the 40's are expected) freshness of the mountains. Friday night there will be a talent show, a grand agglomeration of the various and sundry gifts possessed by the frosh. Glee Club and Band will do their part, too.

The lately-enlightened frosh will return to the campus Saturday afternoon. Sunday a reception will be given for them by President and Mrs. DuBridge.

No Coeds for '69; \$111,675 Offered

Caltech Ranks High in Presidential Scholars

California again contributed the lion's share of Caltech's Class of '69 with 73 out of 201 freshmen. Illinois tossed in 11, Washington added 10, and New York and Texas both lent 8 frosh.

One hundred percent male, nearly all the frosh attended public schools. Twelve percent were from parochial or private schools, double the corresponding percentage of previous years. Bolstering the class are three foreign students from Greece, Hong Kong and Uganda.

Dr. Peter Miller, Assistant Director of Admission and Undergraduate Scholarships, explained that Caltech accepts one African student each year through the ASPAU — African Student Program for American Universities. By a screening process consisting of examinations and interviews, recommendations of selected students are made to the Institute, which then selects an acceptable candidate.

Money!

The Class of '69 boasts four Presidential scholars, rating Caltech "second or third in the nation" in number of Presidential awardees, according to Miller.

Merit Scholars total 27, 10 more than last year's number, and California State scholarships go to 29 incoming frosh.

Caltech itself awarded 85 scholarships amounting to \$111,675.00, an increase of \$15,675.00 over last year. Miller explained that the increase indicated mostly "we had more needy freshmen this year."

This year, as last year, exactly 44 freshmen were valedictorians of their graduating high school classes.

Super-bonus . . .

Surprisingly, both the Chemistry and Physics Achievement Tests scores were the highest average scores of any class entering since 1959. Specific College Board scores were: SAT Verbal, 688 vs. 674 last year; SAT Math, 752 vs. 765; English Composition, 671 vs. 647; Chemistry, 734 vs. 717; and Physics, 735 vs. 728. Since a new math test (Level II) was substituted for the older Advanced Math, there is no relevant comparison for math.

An average predicted GPA, "computed for experimental purposes" after the Class of '69 had been selected, was entirely typical of preceding years: 2.79.

Teckers Take Wilson Money; Head South

Two Caltech men, Dr. Thomas Wirth, PhD '64 in chemistry, and J. David Teal, BS '59 in physics, will participate in a unique program for predominantly Negro colleges sponsored by the Woodrow Wilson National Fellowship Foundation. Wirth is returning from postdoctoral studies at the University of Copenhagen to join the faculty of South Carolina State College in Orangeburg. Teal will teach at Tougaloo College in Mississippi as assistant professor of physics. He earned his MA while a teaching fellow at Harvard.

Financed by a grant from the Rockefeller Foundation, the Teaching Fellowship Program will afford teaching experience to students having completed at least two years of graduate work. These two Caltech men will be among 65 teaching fellows from over 30 graduate schools. Sponsors hope that the presence of these young teacher-scholars at the 36 participating Southern colleges will inspire undergraduates to set higher educational goals for themselves.

One-fourth of each teaching fellow's salary will be paid by the Woodrow Wilson Foundation. The schools do their part by releasing one-fourth of the fellow's time for honors work and for other contacts with promising students.

Lead Level Nears Mortifying Heights

BY R. F. PELZMANN

A slow and painful death from lead poisoning is nearer than many people think. In a recent report, Dr. Claire C. Patterson of the Geology Department stated that the American people may be in danger of cumulative poisoning from the amounts of lead being absorbed by the body.

"The basic danger is that the high level of lead may adversely affect the activities of the central nervous system," said Patterson. Recent studies show that the average American's blood contains 0.25 parts per million of lead. This approaches the classical toxic level of 0.5 to 0.8 parts per million and is 100 times above the natural level of lead in uncontaminated blood, 0.002 parts per million.

Lead Smog

Americans absorb nearly 20 tons of lead yearly, which comes mostly from processed food, water, and air pollution. Man-made air pollutant from leaded gasoline and lead arsenate sprayed on tobacco plants has augmented the natural quantity of lead from forest fires and meteoric smoke to such an extent that nearly all of the lead in the body is absorbed from the air.

It is known that lead poisoning damages tissues, but the pathways of this destruction are not clear. The geochemist said that so little is known about the long-range effects of lead poisoning that the arbitrary standard of 0.5 to 0.8 parts per million is un-

realistic and not based on sound scientific foundations.

Investigation Needed

Because of this lack of knowledge Patterson urged ". . . a more careful definition of natural and toxic lead levels in the blood, an investigation of how industrial lead is dispersed into foods, and the elimination of some of the most serious sources of lead pollution, such as leaded gasoline, lead insecticides, food-can solder, lead water-service pipes, and lead in kitchenware and paints."

Shortly after this report was released in the American Medical

(Continued on page 6)

Notices

BIG T SUPPLEMENT

The Spring Supplement for the 1965 **Big T** is on its way! The gods of the trucking industry of America (grand country that it is) willing, it should be here and ready for distribution by registration day.

DEMOCRATS UNIITE!

Anyone interested in joining and working for the newly-formed Caltech Young Democrats Club please contact Jerry Yudelton at camp or with a note in the Dabney House "Y" box. Be more than a troll!

JERRY YUDELSON

ASCIT Activities Chairman would like to for man Active Committee—or at least get touch with people who like to. Let him know if you're inter

Editorials

Home Sweet Home

Welcome, Freshmen, to Caltech. The **California Tech** hopes that yours will be a rewarding and valuable four-year stay.

Caltech is not an easy place; the academics are difficult and challenging. Nevertheless, academic preoccupation must not overshadow the primary goal of advanced education—the overall development of the individual. Getting the most out of your tenure will require a **total effort**, not only academic, but rich in the many other facets that also contribute to maturity.

Information given at Frosh Camp will help very much to achieve this rounding-out. So don't let the words spoken by student leaders and faculty lull you to sleep. Feel free to clarify any doubts or questions that arise, by asking your discussion group leaders. Above all, Frosh Camp affords an opportunity to be forewarned of the pitfalls that may some day confront every one of you.

Finally, when back on campus, don't be afraid to open doors. Caltech offers a unique opportunity to be near the frontiers of today's research. Do honors work, talk to the faculty (start with those you have become acquainted with at camp), and make Caltech your own.

Good luck!

—Tim Hendrickson
Bob Berry
Norton Greenfeld

little t and crumpets

If you've already read your **little t**, you will undoubtedly have noticed thesniping remarks about the **Tech** and about **Tech** editors/in particular. The nefarious, yea, even depraved, editors of that vile scandal sheet (the **little t**, not the **Tech**!) are obviously jealous of the exemplary job we are doing in bringing you the best news first.

But let us not consider their putrid motives; let us rather have noticed the sniping remarks about the **Tech** and about **Tech** tempted not only to sully the reputations of us, your fearless, peerless, editors, but also the good name of our mild-mannered advisor. Furthermore, they did so in a most wicked, obscene manner.

consider the actions of these most vile creatures. They have at-**Tech** editor's wrath? Mr. Thim Hyndrixps ended up as the prize in a **Tech**-sponsored Tom Swifties contest, and where is he now? Need we remind them of the Beavers who were the subject of a three week emotional vendetta, sponsored by the **Tech**?

Need we remind them of the last poor mortal to incur a tors. In future weeks we will present a full expose on the **little t** and its editors. You will thrill to revealing accounts of their personal habits, gasp as you learn the facts of their parentage, hold your breath in amazement as we recount the true story of the copy-to-advertising ratio. And when we have revealed these creatures for the fiends they really are, you will shun them, and they will spend their days in sackcloth and ashes.

—Bob Berry
Norton Greenfeld
Thim Hyndrixps

EDITORIAL POLICY

For the information of its readers, the **Tech** presents the following summary of its editorial policy:

The first signature following an editorial indicates the author of that editorial. The following signatures, if any, indicate approval by the other editors. If all three editors sign the editorial, that editorial then represents the opinion of the **California Tech**.

In general, column writers have complete freedom as to the content of their columns. No column will be eliminated from any issue of the paper solely because of the opinions represented in that

column. Column writers represent their own opinions only and not necessarily the opinions of the **California Tech**.

The **California Tech** welcomes all letters, whether or not they agree with editorial opinion. All letters must be signed, but the author's name may be withheld from publication on request. Letters are edited (or left out) solely on the bases of space, decency, and the desire to present letter opinions in proportion to the amount of mail received. As with columns, the opinions stated in letters are not necessarily those of the **California Tech**.

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THIS AD WORTH 25¢ ON ANY LARGE SIZE PIZZA OR DINNER.
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Winnett Lounge Plagued by TV

Winnett Lounge, long a haven for seekers of meditation and repose, has been amplified by the addition of a 21-inch Zenith colour television, a gift of the Class of '65. Those worthies no doubt rested secure in the belief that their beneficence had provided an unmixed blessing which would smoothly and joyfully take its place in the Caltech saga. Such was not to be.

The first omen of ill fate was revealed when the new set was turned on: it did not work. It was soon discovered that even a working set would require an antenna. But B&G dampened the enthusiasm that ensued by decreeing that the antenna could only be put up in the Winnett attic at a cost of \$150 or on Spalding for \$270. When B&G stated that Winnett would have to disburse this money Dr. Pitzer's urging helped them to find funds to assume this pecuniary burden. Pitzer is the Coordinator of Student Activities and runs Winnett Center.

At this point an unidentified electrical engineer walked into the lounge, pasted two strips of foil to a window, paper-clipped them to a test colour TV set, and thereby produced a picture with a resolution of no less than 100,000 lines per inch.

But tribulations still plague the unenviable kinescope. Now there is a petition to remove the set even before its maiden voyage, on the grounds that it may destroy the mood of Socratic scholarship which has thus far prevailed.

Discount certificates are available at the Winnett office or the YMCA for the film "An Evening with the Royal Ballet," to be presented at the Academy Theater, 1003 E. Colorado. The show will feature internationally famous ballet stars Margot Fonteyn and Rudolf Nureyev. It will be shown twice daily at 2:30 and 8:30 on Wednesday and Thursday, September 29 and 30, but discount certificates are good for the matinee only. The show provides a painless way for all culture-vultures to start the year off right, so go. You too can feel superior!

Letters

Thoughts on the Honor System

Fifty-five years ago — that's when it first began; that was the time the Honor System came into existence at Caltech. Many of you who are reading this article are freshmen riding a bus to New Student Camp. At camp you will have the operation and ideology of the Honor System explained in further detail. But even before you arrive at camp there are some questions you should ask yourself about the Honor System.

First, as you read in the Honor System pamphlet you received this summer, the basic tenet of the Honor System is that a student should not take **unfair** advantage of his fellow students. Exactly what does this mean? Obviously someone who cheats on a test is violating the System, as is someone who steals another person's books. But what about an overnight book (i.e., one that is checked out after 4 p.m. one day and is due by 9 a.m. the next) that many people in a class may need. Suppose one of these is kept overdue for several days — is that a violation of the Hon-

or System?

And another critical point — suppose a person observes a violation and doesn't report it. Is that a violation?

And there is a second major question you should ask yourself. The Honor System has been in effect and has worked for fifty-five years. Why? Why does this system of mutual trust and respect which has failed at many schools work here at Caltech?

For the Board of Control
Gordon Myers

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Pasadena, California

California Tech

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STUDENT GO - GO!

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FLICK GUIDE

ACADEMY
1003 E. Colorado 796-3191
Admission: \$1.49 (\$1.25 before 5:00)
w Fox student card.*
Friday and Saturday:
Never on Sunday — 2:55, 6:45, 10:35
Topkapi — 12:45, 4:30, 8:00

COLORADO
2586 E. Colorado 796-9704
Admission: \$1.00 for students
Friday:
Help! — 7:00, 10:00
Go Go Mania — 8:50
Saturday:
Guess Who — 12:45, 4:00, 7:00,
10:00
Maniacs — 2:40, 5:40, 8:55

CROWN
129 N. Raymond 796-3131
Admission: \$1.25 w Statewide student
card, \$1.49 without.
Friday and Saturday:
Van Ryan's Express — 2:30, 6:30,
10:25
John Goldfarb, Please Come Home —
12:50, 4:45, 8:45

ESQUIRE
2670 E. Colorado 793-6149
Admission: \$1.25 for students
Friday:
L'Avventura — 9:00
La Notte — 7:00, 11:25

STATE
770 E. Colorado 792-7139
Admission: \$1.25 w Fox student card.*
\$1.49 w out
Features are Lord Jim and The Ameri-
canization of Emily. No schedule
available before press time.

UNITED ARTISTS
606 E. Colorado 681-6577
Admission: \$1.25 w United Artists stu-
dent card. \$1.49 w out.
Friday and Saturday:
Cat Ballou — 3:14, 6:55, 10:36
Joy in the Morning — 1:25, 5:06, 8:47

UPTOWN
2316 E. Colorado 793-4330
Admission: \$1.25 w Uptown student
card,** \$1.49 w out.

(Continued on page 5)



With increased leisure time re-
sulting from no grades, frosh do
seem to be getting off campus
more. Last year we noticed packs
of them scurrying off to operas,
concerts, ballets, and art films.
However, it didn't seem like
many people were taking advan-
tage of the many excellent jazz
and folk clubs around town, and
this is a shame because Los An-
geles attracts the cream of jazz
and folk performers. For in-
stance, Cannonball Adderly, Ah-
mad Jamal, and the Ramsey
Lewis Trio have been — or will
be — in town this month. Further-
more, for about \$1.50 and a drink
you can hear any of these people.

At some places you have to be
18 to get in, and all but the Ice
House are outside of Pasadena,
but age and distance are not in-
surmountable problems, judging
from the number of Teckers go-
ing out to Hollywood for horny
movies which have the same re-
strictions.

Non-paid Ad

Let's consider the Ice House.
They run comedy and folk shows
— usually good ones. They con-
sider themselves "delightfully in-
formal" — they are. There's no
age restriction, and the Pasadena
place is within walking distance.
Also they've just opened up a
branch in Glendale, so if you
don't like the Pasadena show,
you can toddle over to the other
establishment. The Pair Extra-
ordinaire is currently featured at
Glendale. They'll only be there
till Sunday, so call in your reser-

vations and go — you won't re-
gret it. If you've heard their rec-
ord or seen them on TV, you
know how good their music is,
but their stage presence adds
100% to the act. They really
seem to enjoy working, and this
comes across at its best in the
informal atmosphere of the Ice
House.

The Pair are Marcus Hemphill,
who gets more music out of an
old beat up string bass than any-
one around, and Carl Craig who
sings with perfect rhythm and
range and is the second most
famous native of Gilmer, Texas.
(The first being a Tech editor
who will modestly remain name-
less.) They are especially good on
"A Hundred Pounds of Clay,"
"John Henry," and "So Round,
So Firm." It's a great act. It
swings. See it.

For Jazz Nuts Only

If you like jazz, try the Light-
house. It's in Hermosa Beach,
but the drive is worth it. Try
to go down Sunday — spend the
morning on the beach and then
catch their 3 p.m. matinee. Ad-
mission is \$1.50 per set, except
that there is no admission on
Monday and Tuesday, when the
Lighthouse All Stars hold forth.
Furthermore, you get great en-
tertainment for the money. Ah-
mad Jamal closes out this Sun-
day, Ramsey Lewis will be there
Oct. 1 through Oct. 17, and Mose
Allison will appear from Oct. 22
through the 31st. No matter if
you're under 18 — if you like
jazz, this is the place.

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Bebe Bites

There is an 18 year age restriction at Shelly's Manne-Hole, but some really good jazz groups play there, with Shelly Manne and His Men holding forth between featured engagements.

The Ash Grove is another folk house, while the Troubador appeals to both folk and pop fans.

You say you have no money and no car and yet you must hear good jazz? Get yourself an FM radio and tune in KBCA (105.1). You can listen all night long.

WHAT, WHERE, HOW MUCH

The Ice House
Pasadena
24 North Mentor Murray 1-9942
Showtimes: Tuesday, Wednesday, Thursday: 8:30, 10:00.
Friday and Saturday: 8:30, 10:30, 12:30.
Sunday: 8:30.

Glendale
234 South Brand 245-5048
Showtimes: Tuesday, Wednesday, Thursday, Sunday: 8:30, 10:30.

The Lighthouse
30 Pier Avenue,
Hermosa Beach Frontier 4-9065
Showtimes: Monday through Saturday: 9:00.
Sunday: 3:00.

Shelly's Manne-Hole
1608 Cahuenga 464-6900

The Ash Grove
8162 Melrose 653-2079

The Troubador
9083 Santa Monica 276-6168

PAT'S LIQUORS AND DELICATESSEN
1072 E. Colorado SY 6-6761
Open to midnight daily,
1 a.m. Fri. & Sat.
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SPORTS

Grads, Undergrads Have Separate Soccer Teams

This year the organization of the soccer teams has gone through a radical change. Until last year soccer was a club sport, which means that graduate students, employees, or anyone connected with Caltech was eligible for the varsity. The junior varsity consisted of players of lesser talent, usually undergraduates.

This type of organization resulted in a complete domination of the league by Caltech and UCLA. Both these schools have many grad students from foreign countries where soccer is a widely-played sport. The foreign students are in general better players than the Americans.

To remedy the situation and even out the league the designation of the teams has been changed. Starting this year the varsity will be limited to undergraduates, while an "open" division has been established for grads and others excluded from

the varsity.

Optimism

Practice for both teams started last Monday, with most members rusty after a summer of inactivity. But they are quickly getting in shape and preparing for the first games, which will come in less than two weeks. The open squad, which consists entirely of graduate students who have played together, promises to give another one of its usual strong performances and to have a winning season.

The situation in the varsity is not as bright. There is at the moment a shortage of players, and many of the ones at practice lack experience. Most desperately needed is a goalie. The nucleus of the team consists of Walter Innes, who played on the varsity last year, and Shahbaz Noorvash and Randy Cook from the JV's. Anyone who is interested in soccer is invited to come out to practice any weekday at 4:30. The new organization gives a chance for more students to play, so come and try.

Water Polo Team Hopes For Repeat

BY LITTLE BOB

The championship Caltech water polo team will begin their defense of the SCIAC against Claremont-Harvey Mudd on October 19. But before this they will play seven non-conference games, the first of which is against Glendale on October 1. Last year Caltech shared the conference title with perennial powerhouse Occidental, each with seven wins and only one loss. Graduation has hurt the team with four of last year's starters gone. But captain John Walter and Rich Nielsen, both of whom made second team all-conference last season, are back to lead Coach Warren Emery's combatants.

Aside from Walter and Nielsen, four other returning lettermen, along with Rich Touton and soph goalie, appropriately named Jim Woodhead, will comprise this year's team. Forwards will include seniors Walter, Nielsen, and Pat Miller, while at guard will be senior Jim Gibson and juniors James Soma and Touton. Senior letterman Larry Anderson is the leading candidate to crack the starting lineup.

This year's frosh team, which traditionally builds stars for the varsity, will open its season on October 13 against El Camino. All freshmen interested in this exciting sport should contact Coach Emery.

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SY 6-4373 Parking in rear
Nat Zatkin

Random Barf

BY SMITTY

The University of Maine's Maine Campus tells the tale of two Tau Kappa Epsilon's who decided they wanted a 419" beauty with brown eyes for their very own. As a matter of convenience to their fraternity brothers and themselves, they thought it would be a good idea to keep her in the frat house. Unfortunately, the house mother became quite upset over the whole deal. Pamela, the undulating hunk of femininity that caused all this, aside from being only two years old, is a South American Boa Constrictor. In the end, true love won out and Pamela is now permanent part of Tau Kappa Epsilon frat life. Yet there's a tragic side of this story: when that just-right female walks into your life, it would turn out that she's a snake.

Police Brutality

The City College of San Francisco Guardsman carries an expose on local police state tactics. Stationed on the roof of a large campus building is a policeman, equipped with a radio and a walkie-talkie. From this vantage point, he can scan all the major parking lots and traffic routes, to check for malicious conduct and traffic snares. Lawrence Lawson, a criminologist, relates that the roof observer helped to break up a car theft ring recently operated.

(Continued on page 6)

Soccer Schedule

OPEN

Wed.	Oct. 6	5:00 p.m.	Caltech at UCSB
Sat.	Oct. 9	11:30 a.m.	Pomona at Caltech
Wed.	Oct. 13	5:00 p.m.	Caltech at UCLA
Sat.	Oct. 23	11:30 a.m.	Caltech at Cal Poly
Sat.	Oct. 30	11:30 a.m.	Caltech at Pomona
Wed.	Nov. 3	4:00 p.m.	Whittier at Caltech
Sat.	Nov. 6	10:30 a.m.	Caltech at Chapman
Wed.	Nov. 10	4:00 p.m.	UCR at Caltech
Sat.	Nov. 13	12:00 noon	Biola at Caltech
Sat.	Dec. 4	11:30 a.m.	UCLA at Caltech

UNDERGRADUATE

Sat.	Oct. 2	10:30 a.m.	Loyola at Caltech
Wed.	Oct. 6	3:00 p.m.	Caltech at UCSB
Sat.	Oct. 9	9:30 a.m.	Pomona JV at Caltech
Wed.	Oct. 13	3:00 p.m.	Caltech at UCLA JV
Sat.	Oct. 16	10:30 a.m.	CS-Full. at Caltech
Wed.	Oct. 20	4:00 p.m.	Caltech at Oxy
Sat.	Oct. 23	9:30 a.m.	Caltech at Cal Poly
Wed.	Oct. 27	4:00 p.m.	Redlands at Caltech
Sat.	Oct. 30	10:30 a.m.	Caltech at Westmont
Wed.	Nov. 10	2:00 p.m.	UCR at Caltech
Sat.	Nov. 13	10:00 a.m.	Biola at Caltech
Sat.	Dec. 4	9:30 a.m.	UCLA JV at Caltech

CALTECH BOOKSTORE

Winnett Center

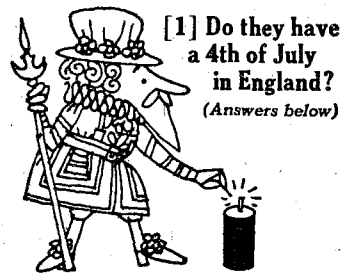
Campus ext. 545-546

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Reference books
Paperbacks
Book ordering service
Astronomical pictures

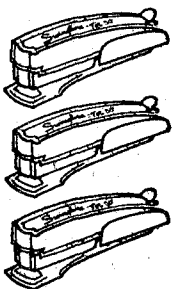
School supplies
Slide rules
Drafting equipment
Drug supplies
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Swingline PuzZleMents



[1] Do they have a 4th of July in England?
(Answers below)

[2] Take two TOT Staplers from three TOT Staplers, and what do you have?



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ANSWERS 1. Sure, But they don't celebrate Independence Day! 2. The one better than having one TOT Stapler, it's having two of them! They're so handy and useful!

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Horny Frosh Football Player

Footballers Have Great Expectations

Where there is life, there is hope! And this year's Caltech football team has shown plenty of life. With the addition of several frosh, there are enough players to provide stiff competition at some positions. Outstanding among the newcomers is Thomas Burton, a quarterback with a fine arm and enough height to see over onrushing linemen. He and Jay Chapyak, last year's starting quarterback, have been alternately directing the offense.

John Frazzini, who was the Beavers' rushing offense last year, is back and hoping this season to get better blocking from a larger and more experienced offensive line. He will be supported by other fine runners like Mike Brennan, Gary Ihas, and Ray Kawal.

The defense is lead by Andy Kampe and Lee Myers, while on offense the big men are Bill Mitchell and Bob Serafin. The whole line was hitting with authority during practice, and

if they retain their fierceness in the games they should open quite a few holes for the backs.

This year's team, with added size and maturity, should have one of its most successful seasons in the last few years. But despite the quality of players being high, the quantity is low. Freshmen and others are urged to come and try out for this manly sport! See Coach Burt LaBucherie; he'll be most happy to see you.

Flip Guide

Friday:
Third Day — 6:45, 11:00
Cheyenne Autumn — 8:45
Saturday:
3rd Day — 1:30, 6:00, 10:30
Indian Summer — 3:40, 8:10

*If you are bereft of a Fox student card, one can be bought, included in an admission price of \$1.75. Good for six months.

**An Uptown student card can be purchased under the following plan — first night: admission plus card, \$1.50; second night: admission, free; following nights: admission, \$1.25.

Football Schedule

Sat.	Oct. 9	2 p.m.	Caltech at Azusa-Pacific
Sat.	Oct. 16	8 p.m.	Caltech at Pomona
Sat.	Oct. 23	8 p.m.	LaVerne at Rose Bowl
Sat.	Oct. 30	2 p.m.	Caltech at Cal Lutheran
Sat.	Nov. 6	2 p.m.	UC Riverside at Rose Bowl
Fri.	Nov. 12	8 p.m.	Caltech at Occidental
Fri.	Nov. 19	8 p.m.	Claremont-HM at Rose Bowl

Advice to Frosh

Dear Frosh,

You may not appreciate this, but the old Rat is about to perform you a real service. For a starter you'll hear all the present Physical Education program. Then you'll learn how to get around it.

Hate to tell you this, but frosh could have a rough time with PE. During the course of one year each frosh section is treated to exactly five weeks each of six different and exciting sports like weight lifting, wrestling, swimming, gymnastics, golf, and ten-

nis. Most of these probably don't even turn you on. But the unwitting frosh is doomed to exactly this program, thirty weeks of real excitement.

Intercollegiate

Caltech Intercollegiate Athletics is in a class by itself. You don't need to be experienced, athletic, smart, big, strong, fast, or good-looking. All you really have to do is either want to play or want to get out of conventional PE. Satisfaction is guaranteed as no one is ever cut from a Caltech squad. We've got teams in all major sports, not to mention cricket. They aren't usually the best teams in the Southern California Intercollegiate Athletic Conference, but they probably have the most fun.

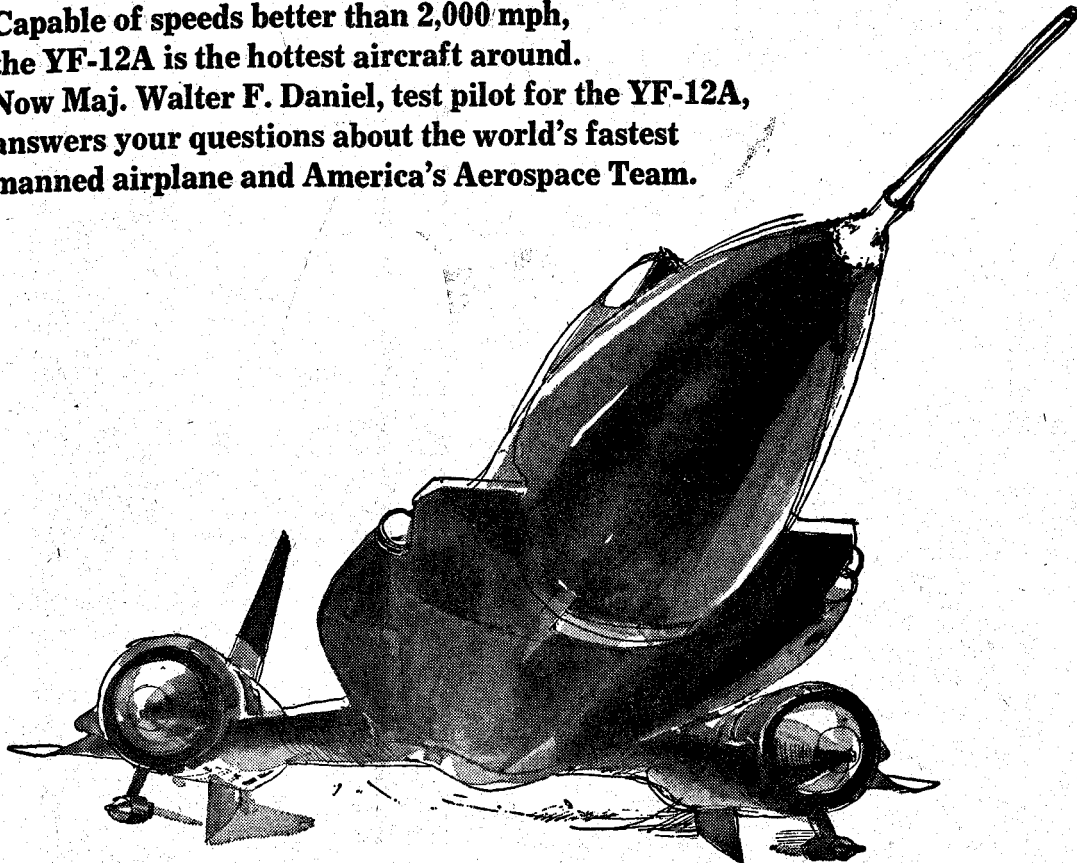
If you really don't like to play intercollegiate sports you can meet your PE obligation as a manager. Basically, this amounts to keeping track of equipment and attendance, or assisting in time keeping. You travel with the team and get delicious training table goodies at the Greasy or at the special dining hall. Coach Emery is currently looking for managers in several sports, including soccer.

Interhouse

Another noble way to meet your PE requirement is the Interhouse sports program. This is just what it says. One merely tells his PE coach that he's going to play Interhouse for however long the sport lasts and then is

(Continued on page 6)

Capable of speeds better than 2,000 mph, the YF-12A is the hottest aircraft around. Now Maj. Walter F. Daniel, test pilot for the YF-12A, answers your questions about the world's fastest manned airplane and America's Aerospace Team.



(Maj. Daniel, a test pilot since 1954, is a member of the Society of Experimental Test Pilots. He received a B.S. degree in Aeronautical Engineering from the University of Oklahoma. In February 1962, he set world class time-to-climb records in a T-38 jet trainer.)

Is the YF-12A the world's fastest manned aircraft?

It certainly is. On May 1 of this year the YF-12A (formerly known as the A-11) reclaimed the world absolute speed record from the USSR. It was clocked at 2,062 mph over Edwards Air Force Base.

How big is the YF-12A?

The exact dimensions of the YF-12A have not been released yet. But it's approximately 100 feet long, with about a 50-foot wingspan. That's half again as big as our present interceptors!

Is the Air Force training many men as pilots these days?

Yes, very definitely. In spite of all you hear about unmanned vehicles, the human pilot is still very much in the picture. As a matter of fact, the Air Force pilot quota is on the increase.

What other kinds of jobs does the Air Force offer?

Since it's one of the world's foremost technological organizations, the Air Force has plenty of openings for scientists and engineers. There are also many challenging and varied administrative-managerial positions.

What do I have to do to become an Air Force officer?

Air Force ROTC is the best way to get started as an

Air Force officer. The new two-year Air Force ROTC program makes this method available to men who have already completed a year or two of their college education. For college graduates, if you did not take advantage of ROTC, you can still get started through Air Force Officer Training School (OTS), a three-month course open to both men and women.

Can I keep up my studies while I'm in the Air Force?

The Air Force encourages its men and women to continue their educations. For instance, you may qualify to study for a graduate degree during off-duty hours, with the Air Force paying a substantial part of the tuition.

What kind of future do I have in the Air Force?

A bright one. As we move further into the Aerospace Age, the Air Force is going to grow even more important. And you can grow with it!

United States Air Force.

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Lunar Conference Held at Caltech

Some 140 of the world's authorities on the moon and planets met at Caltech September 13-18. Scientists from the United States, the Soviet Union, England, Australia, Canada, France, Belgium, and the Netherlands met to discuss and examine the new knowledge about the solar system which has been produced in the past 12 months by spacecraft and various branches of astronomy.

One of the highlights of the lunar-planetary conference was a presentation of a two month evaluation of information from the historic Mariner IV Mars fly-by. Experts in the fields of optical, radio, radar, and infrared astronomy; astrophysics; physics; biology; geology; chemistry; geochemistry; planetary science; and engineering presented papers and participated in intensive discussions.

Music of the Spheres

Caltech is sponsoring the conference along with its Jet Propulsion Laboratory, with the support of the National Aeronautics and Space Administration. Caltech's president, Dr. Lee A. DuBridge, declared, "The past year or so has been the most exciting period in history as far as adding to our knowledge of the solar system is concerned." He mentioned the Ranger flights to the moon, the Mariner flights to Venus and Mars, radio telescope observations of Jupiter, and radar observations of Venus and Mars as having "added very greatly to our knowledge of the nature and constitution of our nearby planetary neighbors."

Dr. DuBridge summed up the purpose of the conference by saying, "This seems, therefore, an appropriate time to survey the results of our knowledge of the moon and planets and to bring together the information which has been collected at Caltech, at JPL, and at other laboratories and observatories throughout the world.

"This conference is designed to probe in depth these scientific findings, to open them up for criticism and discussion, and to attempt a critical examination of the present state of our knowledge. Needless to say, the information brought together at this conference will play an important role in planning future scientific exploration of the solar system."

Participants

Among the many participants were Dr. Robert Leighton, Caltech physicist who headed the Mariner IV television experiment; Dr. Gerard Kuiper, Univer-

sity of Arizona, Ranger moon photo experimenter; Dr. Harold Urey, Nobel Laureate chemist from the University of California, San Diego; and Russian astronomers N. A. Kozyrev, A. D. Kuzmin, and V. S. Troitsky.

Among the many invited guests were Nobel Laureate Joshua Lederberg, Stanford University geneticist, and Dr. Melvin Calvin, UCLA chemist.

Dr. DuBridge opened the meeting. The first two days were devoted to the moon, one day each to Jupiter and Venus, and a day and a half to Mars. New results from the Mariner IV fly-by were presented at the final Mars session. The final afternoon was devoted to summation of the results of the conference.

Dr. Harrison Brown, Caltech professor of geochemistry and foreign secretary of the National Academy of Sciences, was chairman of the conference. He was assisted by Dr. Albert R. Hibbs, JPL arms control study group manager.

Voluminous Advice

(Continued from page 5)

excused from his regular classes in PE to attend practices and games against other Houses. The rivalry is intense and the program is well managed by Coach Jim Nerrie. First-term sports consist of softball and swimming. Later there are football (touch), track, volleyball, tennis, and basketball.

So pick your sport, choose your interest, and have a ball.

The Ole Rat

Lead Poisoning

(Continued from page 1)

Association's current Archives of Environmental Health, several of the major petroleum companies issued statements vehemently denying the connection between gasoline fuels and the rise in the lead blood level.

More Space Filler

(Continued from page 4)

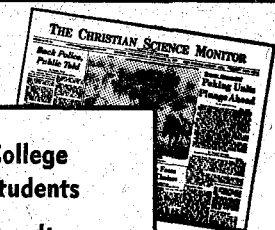
ing on that campus. So the next time you see Fig Newton in the Greasy tunelessly humming tuneless old Brooklyn folk chanties and filching donuts from SAGA, be grateful. It's better than having him up on the roof of Spalding watching you park in the SAGA lot.

Eder Teaching In Philippines

Jim Eder, former president of Fleming House who graduated last June, shipped to the Philippines on September 6 as a member of the Peace Corps.

Eder, who received his degree in biology, is participating as a "co-teacher" — a volunteer working alongside a Filipino teacher. The program's goal is to improve teaching methods on the islands as well as improve the math, science, and English curricula. It is felt that this co-teacher system will enable the volunteer and his Filipino counterpart to improve their methods by continually evaluating each other's work.

Eder first had to undergo a ten-week training period during which he and the other volunteers studied the official island dialect. They were trained also in the new math, inductive science, and English teaching, after which they were able to practice their teaching skills in schools near the training site. After a short leave at home, they were shipped overseas, where they will work until 1967.



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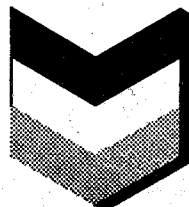
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