

# The CALIFORNIA Tech

olume LXXVIII, Number 9

... Out

Photo-Gregg Brown Victor Marchetti proclaims unto the masses "Beware of the CIA!" as the Y's guest speaker recently.

# A New Government Fad?

#### by Greenie

Some people are bugged by the CIA; others are gadflies buzzing about the cloaks-anddaggers men's ears. One such is Victor Marchetti, who spoke last Thursday in Ramo Auditorium.

Victor Marchetti is an ex-CIA agent turned muckraker, author of the best-selling expose, CIA: The Cult of Intelligence.

The CIA, according to Marchetti, opposed the publication of this book, officially because of "national security reasons", but in reality because of its potential to embarrass the organization. It was published with the aid of civil liberties groups after a protracted court battle.

Marchetti sees the CIA and its brother clandestine intelligence organizations as an insidious slime mold oozing its way into more and more aspects of America's interface with the world community. Its goals, in his view, are to increase American power and influence throughout the world at any cost. He feels that the dangers of the CIA philosophy are amply demonstrated by horrors like Vietnam and embarrassments like

It is this latter part of the CIA which holds membership in the intelligence "cult", which Marchetti envisions as a growing hyura threatening to engulf ordinary governmental operation. According to him, the intelligence community includes 60 agencies with the intelligence components on the federal level alone, employing 150,000 full time employees, and with a budget of over \$6 billion per year. Considering the fact that these intelligence operatives are employed by agencies as diverse as the IRS and the Smithsonian Institution, there may be considerable substance to Marchetti's claim that intelligence operations have become a governmental fad. He states that the intelligence "cult" has supporters in big business, big labor, and even organized crime.

**Continued on Page Three** 

# **Kilobuck of Baxter Books Burgled**

The loss of four books-valued around a thousand dollars- was discovered in Baxter recently.

The books appeared in the Clinton K. Judy display located in a glass front case on the first floor of Baxter.

According to Shirley Marneus, who works in the Public Affairs room in Baxter, the books have probably been missing for a period as long as two months. Discovery of their loss was made only recently because people passing the ill-lit case and noting the books as missing probably assumed that the books were on loan or being used for a class.

Ms Marneus became suspicious that the books were actually stolen when she called the people

by Gregg Brown and Henry Fuhrmann most likely to have the books and found that they had no knowledge of them.

The person that normally takes care of the display case is in the hospital, and is unavailable for comment.

Security was called and they called the Pasadena Police Department. Since the time of the crime is so indefinite, the police were able to do little investigation of the theft. Fingerprint detection, for example, was a hopeless endeavour. Security was not available for further comments by press time.

The books, which were displayed in the case for about five years, were: Thomas Paine's The Rights of Man, which was the first edition of this book to be published in England; The Metamorphosis of Ajax, by Sir John Harington, one of an edition of only a hundred copies; Thomas Hobbes' Leviathan, another first edition published in 1651 and a collection of classics printed in Latin in 1533. Various evaluations listed the books' collected value at over \$800.

Letters describing the books in detail have been sent to various rare book stores, museums and libraries in an effort to regain the books. Books stolen from the Huntington Library were recovered this way, when they were offered for sale to legitimate bibliophiles.

# Moffet on Time for Lecture

## by Alan Silverstein

Elegant chimes sounded as Dr. Alan Moffet, CIT Astronomy Professor and Director of the Owens Valley Radio Observatory took the stage of Beckman Auditorium last Wednesday. "That, too, is a form of telling

## Mudeo **Rained Out?**

Contrary to recent advertisements, the Mudeo will not be held this Saturday. Due to circumstances beyond our control (i.e., the contractor called Tuesday to say he couldn't make it this week), we were unable to get the pit finished by the announced date. The Mudeo is being rescheduled and the date will be announced after we get a commitment from the contractor. Stay tuned for further details.

-The Junior Class Officers

# Meet Guys & Dolls

# by Flora Boyer

This weekend, we will be habitues. holding auditions for the ASCIT Musical, Guys and Dolls, to be presented February 25, 26, and 27, 1977, in Ramo Auditorium. Faculty, staff, students, spouses and friends are all welcome to try out. Guys and Dolls (subtitled "A Musical Fable of Broadway"), is a story of the trials and tribulations (with a happy ending, of course). of two couples: Nathan Detroit, the proprietor of "the oldest established permanent floating crap game in New York," and Miss Adelaide, a chorus girl at the Hot Box night club, who have been engaged for fourteen years; and Sky Masterson, a gambler who will bet on anything, and Sarah Brown, a missionary at the Save-A-Soul Mission. Interspersed in their love stories are scenes with Chicago gangsters, Salvation

Army generals, and Havana cafe

We need people to audition for the cast. Besides the tour leading roles, there are several smaller singing and speaking parts: for women, a Salvation Army general, a missionary, and a chorus girl; for men, assorted gamblers and gangsters, a policeman, and Sarah's grandfather. We also need large men's and women's choruses. And if you have any dancing experience, we especially want you. For auditions, if you are interested in a role, please come prepared to sing a song of your own choosing (this part for singing roles only). Music from Guys and Dolls can be obtained in 105 Winnett. We will provide an accompanist. Also, you will be asked to read from the script, and to dance, if vou can.

time," he commented as he began the season's fourth Watson Lecture, entitled simply "Precision Time". Dr. Moffet's hourlong dissertation was, I thought, an excellent summary of the history and status of time-keeping in the modern world. He covered the sources of precision time (i.e. clocks, mechanical and atomic), the means by which synchronization is kept and disseminated, and the ways in which extremely accurate time is used or even required

Dr. Moffet remarked that "Astronomy is the world's second oldest profession " due to the ancient need for calendars and eclipse prediction. Timekeeping as a related art also led to the early development of mathematics. The unit of time, of course, has always been the day due to the rotation of the earth and our sexedecimal system of seconds, minutes, and hours had its origins with Sumerian astronomy.

The first very accurate mechanical clock however, was not developed until 1764 when the Harrison Chronometer

Number Four proved precise to one part in a million. The earth as a clock is accurate to one part per billion (this due to seasonal fluctuations and gradual slowing). Taking the earth as a measure of precision, the first truly "precise" time was not developed till the 1940's, with the advent of the quartz crystal oscillator (one part in one hundred billion accuracy).

Atomic clocks, of which four varieties were described generally work on the principle of locking a radio oscillator to the frequency (energy) of an atomic transition. A rubidium absorption cell clock set at Owens Valley was on display during the lecture, and was nominally still within one microsecond of its setting several days before.

Cesium clocks do not drift as much as rubidium clocks, and hence fifteen of them are used by the U.S. Naval Observatory in an averaging ensemble to give U.S. standard time. In fact, it is now convention that one second equals the duration of 9,192,631,770 periods of the radiation corresponding to the **Continued on Page Four** 

# T

Greece and Chile.

Marchetti traces the history of the CIA from the Office of Strategic Services of World War ll. The CIA was created as an entity by Harry S Truman in 1947 to serve as a centralized intelligence organization in order to provide coherent information to policy makers. Its personnel consisted of ex-OSS operatives, ("the blow and burn boys") whose desire to relive the gamorous days of World War II sabotage and guerrilla warfare did not mesh with the conception of a staid intelligence gathering machine. Marchetti feels that it was the pressure of these operatives which provided the initial impetus to deviate from Truman's plan. A clause was added to the CIA charter permitting the CIA to do anything required of it by the National Security Agency.

We also need an orchestra, Continued on Page Three

# All the News Ι πατ Γ π

## Son Of World War II

This Saturday night, at 7:30 p.m. in Dabney Hall Lounge, there will be another in a long series of evenings of naval miniatures games, as well as a bit of messing about with other gaming. Beginners welcome.

Also as usual, there is D&D and other fantasy gaming in Clubroom 1 Winnett, on Friday evening.

## John John vs. The Smog Monster

'Years of Lightning, Day of Drums," a rather excellent film about John F. Kennedy will be shown on KTLA (Channel 5) this Saturday night, November 20, at 8 p.m. Narrated by Gregory Peck, the film utilizes home

movies and newsreel footage to tell the story of Kennedy's tragically shortened time in the White House. Grab a TV and watch it.

# Son Of

## Math Club

Noted Caltech astrophysicist Kip Thorne will speak next Tuesday at the first meeting this year of the Math Club (you do remember the Math Club, don't you?). The title of his talk is "Current Mathematical Research in General Relativity Theory." Everyone interested is welcome to attend this meeting which will be in 151 Sloan at 7:30 p.m. Refreshments will be served afterwards. That's Tuesday evening November 23 in Sloan

Page Two



Sitting in the *Tech* office on a Thursday afternoon gives one an immense feeling of despair. No copy is in and the offices are a mess and the paint is peeling. So after a brief discussion with high ASCIT officials, we have placed the Publications Offices (and darkroom) under pseudo-martial law.

Due to the lack of a paper next week because of Thanksgiving, the *Tech* hereby closes its offices, workrooms, and darkroom to all persons effective Friday, November 17, 1976 (today) at noon. Any person with any interest in these rooms is hereby warned to contact Al Kellner of Carl Lydick before entering the above-mentioned rooms.

Regarding the copy: all G&C on the *Tech* machines (indeed all authorization for the use of the machines) is hereby cancelled, and the machines have been temporarily rendered inoperative. Again contact Al Kellner or Carl Lydick

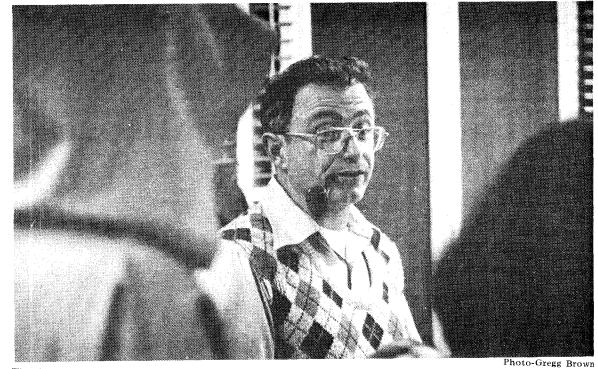
Finally this is your newspaper. We need staff to help write, photograph, layout, do menial labor, *etc.* We *have* a self-appointed board of critics (most of whom never ran for *Tech* Editor) with no respect for the basic journalistic necessities such as deadlines and the idea that news is a valid item for inclusion in a newspaper.

You'll notice that this week's *Tech* is only four pages. All future issues of the *Tech* will be this size until assignments and deadlines are honored by enough people to justify a larger issue.

It's up to you.

Al Kellner Carl J Lydick

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THE ASCIT FRIDAY NIGHT MOVIE



The Spanish Inquisition descended upon Jim Mayer as he and his wife served snacks during Interhouse.

# News Brief News Brief News

CALTECH DINING SERVICE

Here's What's Cookin

11-22-76 through 11-24-76

Monday November 22, 1976

Salad- Carrot Raisin Salad Dessert- Cherry Cobbler

Tuesday November 23, 1976

Roast Turkey and Dressing

Dessert- Spamoni Ice Cream

Beef Stroganoff with Noodles

Wednesday November 24, 1976

Salad- Tossed Green with Italian Dressing

Ham and Bean Casserole

Seafood Croquettes

Italian Night::::

BBQ Ham Sandwich

Veal Parmesan

Tuna Noodle Casserole

Salad- Relish Tray

Dessert- Yellow Cake

Lunch: Sloppy Joe on a bun

Dinner: Roast Beef and Gravy

Baked Ham

## The Telltale Harpsichord

Lunch:

Dinner:

Lunch:

Dinner:

"Music for Two Harpsichords: A Celebration of St. Cecilia" will be performed by internationally acclaimed artists, Preethi de Silva and Martin Pearlman Sunday, November 21, at 8:15 pm. in the Humanities Auditorium at Scripps College, free and open to the public. There will also be pieces by Couperin Muethel, J.S. Bach and Johann Krebs. Both de Silva, assistant professor of music at Scripps College, and Pearlman, the director of Boston's Baroque ensemble *Banchetto Musicale*, are well-known touring musicians. Well worth the trip out to Claremont.





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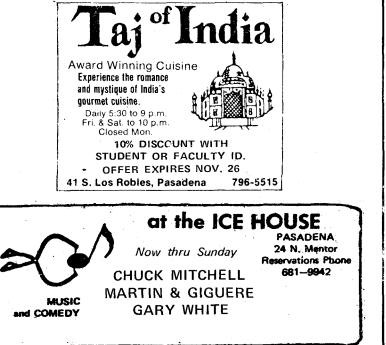
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Young Frankenstein 7:30 p.m. & 9:30 p.m. in Baxter Lecture Hall Admission: 50c-ASCIT members and their guests; \$1.00 - anyone else NEXT WEEK **Buck** MUSIC and COMEDY and the Preacher



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Interhouse proved to be as hectic as ever, but it still welcomed the rainy season as always. More next issue.

# Guys & Dolls in Dabney News Brief

Continued from Page One including some people who will actually be on stage as the Salvation Army Band. If you are interested, please come to auditions and let us know. Mostly, we need to know what you play and what previous experience you have.

We need lots of people on the crew. People have to help us do everything from make costumes, help cast members with makeup, build sets, work backstage during rehearsals and performances, collect props and work follow spotlights. If you've had previous theatrical experience (and if you haven't come, too, we'll teach you), come to auditions and let us know you are interested.

If you're worried about things like classes, jobs homework, Glee Club, an occasional night to do nothing (or something, as the case may be), we do try to keep these things in mind. We have less than two months to do the show (we start rehearsals on January 4, 1977), and the rehearsal schedule is pretty heavy. But we try not to schedule rehearsals at the times you have other things to do. We do not want you to flunk out.

Auditions are Saturday, November 20 from 3:00 p.m. to 5:30 p.m. and from 7:00 p.m. to 9:00 p.m., and Sunday, November 21 from 4:15 p.m. to 5:30 p.m., in Dabney Hall Lounge. If

(OThe Morgan Press, 1976

you have any questions, please call at 795-6811, ext. 2157, or drop by 105 Winnett.

Please come to auditions, and good luck ....

### Revenge of the **Cookie Monster**

Wednesday on the Olive Walk. between 9:30 and 1:00 there will be another Grad Wives bake sale.

# **CIA's Dirty Tricks**

## Continued from Page One

It was this "dirty tricks" provision, which Marchetti regards as a perversion of the original purpose for which the CIA was created, which soon devolved as a major part of CIA activity. These activities included penetration and manipulation of political groups, intervention in the internal affairs of foreign governments, sabotage and similar paramilitary activities, propaganda, and even assassinations.

Marchetti described the CIA as an iceberg: the third above the surface consisting of legitimate scientific and technological research, information gathering, and fact-finding studies; the two-thirds below the surface consists of the "clandestine services", which he feels forms the rotten core of the CIA.

The CIA has acknowledged that it possesses a secret charter garnered over the years from National Security Agency and executive directives. Marchetti calls the CIA "the secret weapon of the presidency," operating without the knowledge or approval of Congress or the public. He further states that "every president from Truman to Nixon has lied to protect it."

He feels that the current fight for control over the CIA is an expression of the power struggle between Congress and the presidency and goes so far as to say

that there has been complicity between the CIA and the executive branch to sabotage Congressional investigations,

Secrecy, says Marchetti, is the lifeblood of the CIA intelligence community. It represents power, plain and simple. While acknowledging that some secrecy is essential to the mandated operation of the CIA, he firmly believes that excessive secreev has been instituted and maintained in order to keep the public in ignorance of CIA doings, and therefore unable to exercise control.

In addition as Marchetti points out, many covert CIA activities of the past (most of which were revealed over screamed CIA protests) have failed the test of retrospection as to whether or not they were necessary actually in the national interest, or even successful. He sees this as indicative of the need for oversight.

According to Marchetti, the heads of the CIA see their job as one of "maintaining sta-bility"-i.e., the status quo. However, he feels it more relevant to "put our own house in order" rather than fussing about "national security"; as he rightly points out, true security for the nation lies in a strong economy and a secure democracy.



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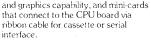
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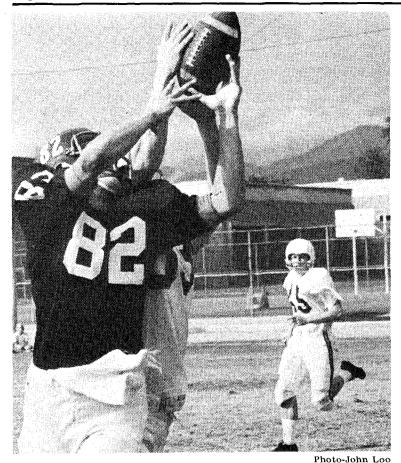
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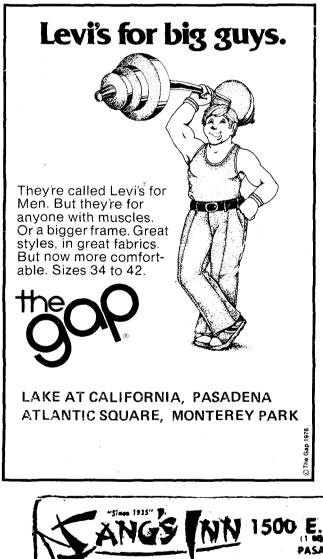


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Page Four



Even a great interception couldn't help Tech win the LaVerne game, which we lost by three inches and a score to 13-10.



# Cross Country

by Brett van Steenwyk

Caltech Cross Country finished its season by competing in the NAIA District III championships last Saturday at La Mirada Park. The team tied with Redlands for ninth in a field of eleven teams. Azusa Pacific won the championships and hence goes to National competition.

Brett Van Steenwyk and Steve Kellogg were the first and second Caltech finishers, placing 32 and 33 with times of 28:14 and 28:16, respectively. Then came Bill "Pondwater" Gould, placing 56th with a time of 30:49. Next was Rob Bourret with a place of 58th and a time of 31:08. Next was Eugene Loh, 61st at 31:36. Tom Mc Cabe and Davis Finley garnered 70th and 74th with times of 34:32 and 36:20 respectively. The 5-mile course was composed of rolling hills with several miles of muddy grass; hence the slower times.

Cross-country also had its

# **Caltech Sports**



awards banquet Sunday night. Varsity lettermen were Steve Kellogg, Rob Bourret, Brett Van Steenwyk, Eugene Loh, Bill Gould, Tom McCabe, and Osh Rothenburg. The Paul Barthel award, for the most dedicated and inspirational runner, went to Rob Bourret, as a tribute for his work in bringing together the runners into, as Coach Neal puts it, "one of the few real teams I

have seen in cross-country." Pentathlon trophy, for the high est total points in a series of time trials from the two-mile or down, went to Brett Van Steenwyk. Senior Steve Kellog for four years of varsity running received an award of recognition and a lifetime pass to Calted sporting events.

Now the runners await the track season.

# Some Time Later

**Continued from Page One** lowest transition of the Cesium atom.

Hydrogen masers, costing as much as \$250K each are still more accurate, especially in the short run (say 1000 seconds). The most accurately measured physical quantity to date is the frequency of such masers, which is known to about 14 places.

Finally a device known as SCSO employs a Niobium cavity at about one degree Kelvin to produce an oscillator with a Q of about 10 to the 12th. They may be used in clocks even more accurate than the maser for short durations.

Talking about atomic clocks led Dr. Moffet into some technical aspects that apparently lost part of the audience. However, details like "Q' and "ns" and "GHz" certainly satisfied the curiosity of another portion of the listeners, and did not. I think detract heavily from the broad overview that he presented so well.

Having discussed clocks, Dr. Moffet went on to describe our

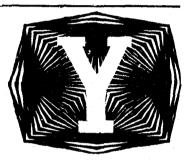


current systems of time-telling. Most notably conventional universal time (UTC) is equal to atomic time (AT) corrected occasionally by the addition of leap seconds to remain within 07 seconds of true corrected earth time (UTZ) That's why this year, for instance there will be an additional second at the very end of it (labelled 1976:12:31:23:59:60 or, if you prefer, 1976:366:23:59:60).

Precise time, to be useful, must be communicable as well as known. Hence we are able to pick up from the airwaves, among other things, WWV, WWVB, WWH, Loran C, and Omega system signals. Of course, if you don't know your exact position but get time-fixes from separate synchronized stations, it can be found Hence, precise time is much needed in precise navigation. Loran C can "fix" you to within a hundred feet.

Sometimes its desirable to transport precise time in a running clock. However, "you'd better not call it an 'atomic clock' when you carry a 'time standard' on a plane!"

A primary use of precision time is in radio astronomy for diverse reasons: wide baseline interferometry, orbit determination radar bouncing FOR SALE: 1971 VW Bus, 8



This week instead of the customary Noon Concert, the Caltech Y will be sponsoring a performance of Chamber Music. to be performed by the participants in the Y's drama work shop. Chamber Music, a one act play set in an asylum, combines elements of both tragedy and comedy in a rather unusual manner. Although the lines takes individually are humorous, the play taken as a whole has a definite tragic theme.

The performers are all Techers, some with little or no previous acting experience, but the play promises to be quite interesting, as during the final days the structure tightens up and characters begin to develop beyond the one-dimensional images which are invariably presented by the script. The performance will take place at noon today in Winnett Lounge and is, of course, free of charge.

-CJl

# CLASSIFIED ADS

off other planets, tests of general relativity, etc.

Why else keep accurate time? "There's a strong aesthetic aspect to keeping precision time," Dr. Moffet said "It's a little bit akin to the motivation of mountain climbers."

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