Waser Visits Europe

Returning to the faculty this summer, for the second year of his absence is Dr. Jurg Waser, professor of physics, who is the recipient of a Guggenheim Fellowship, visited Europe to compare how chemistry is taught in different countries. He traveled through England, France, and Italy, and finally arrived at Zurich, Switzerland, where he had received his degree.

Basically, Waser found college level lecture as well as laboratory work, but more lectures were delivered, and they contained more material. This procedure puts less emphasis on the text books, but more on information memorized. The lectures are supplemented by an extensive laboratory work. Compared with Caltech's labs, European labs are free, but theoretical concepts lack the stress they receive here.

Waser is an expert in the subject of light. He is currently a visiting professor at the University of Zurich, Switzerland. He has found that European high schools prepare students better than American schools do, especially in physics, math, and chemistry.

Incidentally, there is an interesting difference between American and European education systems. European colleges have no mid-term or final. European students have two whole years to prepare for a biennial comprehensive exam.

PKD, Y Debate

By Jeanne Fay

PKD debaters draw a fair crowd of physics students, and curious members of the public Monday night at the surfing Club's Lloyd Lounge at 7:30 p.m.

The debate will be between Dr. Simon Goldwater and Dr. John Priesler with one member of the tech debate team from each side. The topic is, "Resolved, that Barry Goldwater would make a better President than John F. Kennedy." The debate will be moderated by Dr. Benjamin Zweifach. The debate will be held in the Lloyd Lounge at 7:30 p.m. The debate will be moderated by Dr. Benjamin Zweifach. The debate will be held in the Lloyd Lounge at 7:30 p.m.

Zweifach, a member of the tech debate team, will have a political science term. He is a leader in the investigation of the micro-circulation of blood and is working with engineers in the study of the fluid mechanics of blood.

Blood has many duties; it must provide cells with oxygen and food, carry away their wastes, and perform a myriad of other tasks that simple one-celled animals can perform through direct contact with their water environment. All these life-sustaining properties are of no avail, however, if the blood is not properly circulated. Blood is thus considered an organ of importance.

Since the blood is a complex mixture of everything from simple water molecules to very large proteins, and because the small size of the capillaries creates new and unsolved problems in fluid mechanics, Zweifach and his associates have not tackled a trivial problem. Yet, in spite of its complexity, the health of the circulatory system is at the core of many medical problems.

Zweifach is professor of pathology at New York University Medical Center and is a visiting associate in Caltech's Engineering Department. He is a leader in the investigation of the micro-circulation of blood and is working with engineers in the study of the fluid mechanics of blood.

Blood is Important!

Thrombocytes are the white blood cells that clot the capillaries as mere irritation channels and hence of no major importance.

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The following column, entitled "How Square is the Bear Or A Cracker Look At Lyndon," is reprinted from "Techniques," "the South's liveliest student paper." Use its brilliant analysis of the political scene to help you in choosing your candidates in November.

Once upon a time there were our two bears, Lyndon, Robert, and Bill. They all lived together in a great big forest on the banks of the Potomac. They never had the Schwartz Wald and were considered to be the leaders of the bearish world. Lately the big bear changed his tune.

Now every four years there was a big meeting of all the bears in the land to decide whether to side with the old grizzly bears or with the gentle lizards. The big bear, a good sport and manager, and convinced a lot of his friends that the gentle lizards were the ones with the most brains.

If a student goes into a course knowing he need do only enough work to pass, why take it at all?

In the explanatory note issued last week by Dr. Dubridge, no mention was made of any important principles underlying a compulsory health program. The statement in fact made with the tacit assumption that a compulsory program is indeed the Institute's responsibility to carry out. I do not see why this is.

Most of us can appreciate the Institute's concern for students' welfare, but as the notion of imagination can I rationalize its concern for students' physical welfare in the form of a compulsory health program. The matter of personal health insurance is strictly a private concern, in my opinion, and is an individual responsibility. The problems of duplicative commissions are a personal concern, in my opinion, and is an individual responsibility.

Kirk Talks Tomorrow

Professor Russell Kirk, one of America's foremost conservative scholars, will present a major address tomorrow evening at 8 p.m. in the Assembly Hall. The address will be the first in a series of guest lectures for the California for a three-week speaking tour. Mr. Kirk who is also chairman of the Judson Foundation, a Manhattan-based think tank, is a brilliant performance by Richard Burton. The role of the Rev. Mr. Burton, a former student of the Church of England, is played by the Rev. T. Lawrence Shannan, "man's inhumanity to God." Man's actions are motivated by his personal "blue movies," and the world's most vicious sin, "He will show those Red Bears a thing or two."

Professor Kirk does deserve special credit for his deliberate treatise on the poet's ever-present symbolism.

The night will be the success of The Night of the Iguana in spite of the flaw mentioned above. There is no doubt that it is a brilliant performance by Richard Burton. The role of the Rev. Mr. Burton, a former student of the Church of England, is played by the Rev. T. Lawrence Shannan, "man's inhumanity to God." Man's actions are motivated by his personal "blue movies," and the world's most vicious sin, "He will show those Red Bears a thing or two."

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The other two major roles re- present what William Williams terms the "world's earthly existence —

(Continued on page 6)
Moonwatch Team Spies

BY JOHN ROUSE

The brief duration of the recent Soviet three-man space flight was no accident, according to the Caltech Space Patrol. The Patrol announced that the Russians had orbited a test vehicle the previous week, and recovered it after only one day in space. Apparently the test was strictly a dress rehearsal for the manned shot. Although this test vehicle, designated 1964-64A, was not observed by the Patrol, its rocket body was sighted on two occasions.

Bigger and Better

The Voskhod space ship, 1964-64A, was kept in space for only 16 orbits, and hence it was not observed by the Patrol. Observations of the test vehicle's rocket body and re-entry on the Voskhod rocket indicate that the Soviets are indeed using a new and larger booster. This rocket body was brighter than previous Soviet rockets, and even appeared to be brighter than the upper stage of the US' Saturn rocket. This indicates that the Soviet Union has a booster physically larger than the Saturn, which does not necessarily mean that it has a greater payload.

For the past year or so, the USSR has been using two types of rockets for space shots: a modified 1964-64A for satellites launched in orbits inclined 90° to the equator, and a large booster for satellites in 60° inclination orbits. Their manned shots have fallen into the latter category. Before each booster type was put into operation, the Russians conducted a series of tests in their Pacific test range. Thus, the appearance of a new booster was no real surprise, as there was a series of tests last summer.

The USSR has released no information on any of its rockets, for what must be military reasons. Also, very little is released about their satellites, except when there is little doubt that the US already has the information, or when there is a propaganda advantage to be gained.

In the past three years there have been unsuccessful lunar and planetary probes, including a Mars shot and a Venus shot, each of which went on proper trajectory but suffered electronic breakdowns. The majority of Russian attempts have resulted in their placing a larger object into a low earth orbit and having it blow itself into many pieces. One such attempt apparently headed off for Mars, but broke into two dozen fragments after a few seconds of firing. Their problems appear to be centered around the interplanetary probe itself. Shades of Ranger?

Audience

(Continued from page 2)

the “fantastic” and the “realistic.” The play’s theme is Shannon’s encounter with the first level and the second. Deborah Kerr’s portrayal of the middle-aged Nan-ray of his “fantastic” encounter with the first level and the second. Deborah Kerr’s portrayal of the middle-aged nan

Obsequity is the Sot of the Earth

Regretfully, Sue Lyon was given another speaking part. One cannot deny positive contribution to the charm of old Mexico, but her talent as an actress deserved her for a long series of “I Was a Middle-Aged Lolita” thrillers.

If you’re dropping out your career destination, Ling-Temco-Vought offers a wide choice of exciting and challenging routes to your personalized goal.

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**SPORTS**

**Soccer Team Wins Two**

BY HORNSWOGGLER

Caltech’s soccer team continued its winning streak by defeating both Riverside and Santa Barbara this week. Riverside was swept aside 4 to 1. In the week Santa Barbara found itself on the short end of a 1 to 2 score. In an afternoon game against the Riverside JV and varsity teams, Caltech displayed the three qualities which it has displayed throughout the season thus far – good ball control, and intermittently effective defense.

The junior varsity game, which was played earlier in the day, resulting in a score of 3 to 0 favoring the JV’s blanked Riverside by a score of 1 to 0.

**Webmen Lose Two Matches**

Obviously outclassed, the Caltech varsity water polo team lost two games away from home at the end of last week, losing to Cal Poly (Pomona), 13 to 3, and to Cal Poly in a rare night contest. Playing under the lights last Wednesday, Tech was shut out by Cal Poly in a 26 to 0 rout.

This game indicated that Caltech’s varsity team is rapidly solving its problems and developing into a powerful team.

**Flem's Defend Discobolus**

Last weekend, in the first Discobolus match of the year, Fleming defeated Blacker in a tennis contest that was decided by the final match. Fleming and Blacker have been on the lists, and the deciding fourth singles match was expected to be very exciting.

Prior to the deciding fourth singles, Fleming defeated Blacker in a tennis match that was decided by the final match. The course was short, and Fleming was able to take the game by a score of 6-2.

**Tech fallback Donus is surrounded by several Pomona players after picking up yardage against the Sagehens last week at the Rose Bowl. Caltech lost the game 26-0, despite the fact that the Beavers outpointed Pomona on the ground.**

**Frosh Harriers Beat Redlands; Varsity Loses**

The Caltech varsity cross country team won its first loss of the season against Redlands Friday, while the Tech frosh run to an impressive victory over the freshmen from Redlands.

In the varsity race a dozen men from Redlands Jumped ahead of the Tech runners at the start and held their lead through three miles. After a slow start Pete Cruse was able to place seventh as Caltech lost 15 to 49. The course record of 15:56.2 held by Caltech was broken by Larsen of Redlands with a time of 15:30. Larsen’s mile and two-mile times of 4:57 and 10:15, respectively.

The frosh win, as Tech’s frosh men took an early lead but Bill Putnam of Caltech passed him near the mile mark and came in for an easy win in 10:28. Others from Caltech who place were third, Mike Melz; fifth, Steve Pollock; seventh, Dave Kofe; and ninth, Dan Himmels. The final score was Caltech 24, Redlands 91.

**Pomona Takes to Air; Beavers Beat 26 - 0**

This is the year of the forward pass, and Pomona’s Prairie Chickens spread their wings and took the air route to victory as they defeated CIT’s Beavers 26 to 0 Saturday night in the Rose Bowl. The statistics tell the story: CIT completed Pomona 125 yards to 132 on the ground, but the Pigeons flew for 276 yards and eight first downs to Tech’s 19 yards and no first downs.

There are never many bright spots in a losing ball game, but the indefatigable Techmen managed to come up with a few. Despite weak offensive line play (no doubt due to the fact that the Parrots outweighed the Techmen by some 20 pounds per man on the line), the CIT backs managed to lose only 8 yards while Pomona lost 44. Brennan, Mowery, and Frazzini contributed good runs when they found holes.

**Next Week’s Sporting Events**

**CROSS-COUNTRY**

Fri. Oct. 23 4:15 p.m. Claremont-Mudd at Claremont
Sat. Oct. 24 2:00 p.m. La Verne at La Verne
Sun. Oct. 25 9:00 a.m. Cal Poly (Pomona) at Caltech

**SOCCER**

Fri. Oct. 24 4:00 p.m. Pomona at Caltech
Tues. Oct. 27 4:00 p.m. Pomona at Caltech

**ESQUIRE THEATRE**

267 E. COLORADO BLVD.
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NIGHT IS MY FUTURE
DELVES HANLOT

Fri. & Sat. Nov. 17 & 18
3 STRANGE LOVES
SECRET OF WOMEN

SECRET OF WOMEN

WED. THURS. & FRI. 8:30, 9:30 & 10:30
NIXED NIGHT
A LESSON IN LOVE

SAT. & SUN. NOV. 9 & 10
DREAMS SMILES OF A SUMMER NIGHT

MON. TUES. WED. THURS. 8:00, 1:30 & 4:30
BRIN OF LlVKE
THE MADIGAN WOMAN

THURS. & FRI. 8:00, 1:30 & 4:30
THE 7TH SEAL
WILD STRAWBERRIES

SAT., MON., TUES., WED., THURS. & FRIDAY
THE VIRGIN SPRING
THE DEVILS EYE

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“arly interlude”}

"If you always think of the physics, you’ll never have any trouble ever, any­ way. any­ way.”

— G. Zweig
**STEP FORWARD WITH FORD MOTOR COMPANY**

**An Open Letter to the 1965 College Graduate from Donald N. Frey, Assistant General Manager, Ford Division of Ford Motor Company**

America's automobile industry is in the midst of a challenging era, with prospects of an even more exciting and demanding tempo in the years to come.

Ford Motor Company is determined to achieve leadership in all phases of its operation. This leadership promises to bring lasting success to the company, its employees and its stockholders.

It will take people to accomplish this objective. Engineering, finance, styling, marketing, product planning, sales—all require people with the knowledge, judgment and personal drive to avail themselves of the unprecedented opportunities offered by a great industry.

The automobile business is growing. More cars are being bought now than ever before. With increases in population and consumer buying power, even more will be bought in the future. Realizing this, Ford Motor Company seeks to attract college graduates who have the patience to grow with the company and add the market.

Right now, our plans call for employing about a thousand of the best 1965 graduates and a great many more specialists, but we also need persons with broad liberal-arts training who can handle a wide variety of assignments. Actually, in our company, many graduates grow into jobs totally unrelated to their degrees. They have discovered that Ford offers intellectually challenging opportunities for those with the ability to seize them. We invite you to make the same discovery.

Contact your Placement Office and arrange to see our representative.

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**Football (Continued from page 4)**

practice may provide the needed fire. LaVerne, Tech's next opponent, will be as tough as Po­mona. Win or lose, the Beavers may sur­prise LaVerne as well as loyal followers of their university.

The Play-by-Play

Myers' kickoff was returned to the Pomona 26. On the first play Haynes passed to Dabney for two yards and six points. Weaver's kick was good, and the Flycatch­ers led 7 to 0 after 99 seconds of play.

Dinius returned the kickoff to his 41, but Tech had to punt. On Punts from the 25, Willett, Kampe and Jackson cost Pomona ten yards and forced a kick. Tech kicked back and the Punahakeas began a drive from their 9 which stalled when Hall and Mowery knocked down passes. After Po­mona punted for eight yards, CIT found itself in possession on the Bobo-link 37. But Hall's second pass was intercepted by Carver, who was brought down with a resounding tackle by Peters. The ball came out of danger after Scott almost intercepted one of Haynes' aerials. Second down. CIT opened the second quarter with a drive commencing on the Tech 22, and proceeded in short gulps to the Huddle 45, where, after two no-gainers, Carver pick­ed off another Hall aerial to inaugur­ate a Cowbell offensive from their 47. A Haynes-Dundas pass picked up 17, and some short gains put the ball on Tech's 11. A highly questionable pass inter­ference call against McMullins on another Haynes-Dundas effort put the ball on CIT's one-yard line. About time for a goal line stand.

On first down Dinius broke through and spilled Pomona's Mills for a loss of four. A pass fell incomplete. Kampe held Mills to one yard, and it was fourth and four. Gambin, sweeping left end, bulled his way into the endzone, but to and behind a double penal­ty was assessed (CIT offside and Pomona illegal procedure) which nullified the play. Fourth and four again. Haynes faked to pass, and Dinius shot through and smothered him for a loss of ten. End goal line stand.

Tech punted out to midfield. Bussard passed 11, 18, and 17, and it was again first and ten on the one. This time Haynes played it smart; two quarterback sneaks got him into paydirt. Weaver kicked and it was 14 to O.

Tech received to open the second half and punted. The Squabs drove to Tech's 50, at which point Guffrey intercepted a fourth-down pass on his 29, but dropped it and Mowery recovered. Chayguy's first-down pass was intercepted by Pomona's Dahl on the Tech 24. A short pass from Mowery promptly cracked up and hit Dundas for a 41-yard TD. Weaver's kick was partially block­ed by Harly and Guffrey and the score was 20 to 0.

Brennan returned the kickoff to Tech's 22. A short drive, high­lighted by Mowery's 12-yard pick­off, ended in a punt to the Ti­mouse 15. Haynes-Dundas eluded for 30 and 17. Harly threw Hay­nes for a loss of ten, but he calmed­ly zeroed in on Dundas again, who made a fantastic faking catch on the CIT one. This time Gamblin was not to be denied, and he bulled in for the TD. Tech's kick was no good, 20 to 6.

Tech received and punted. The GaGau Hen began a drive that died when Kampe and Harly throw Pomonans for losses. CIT received on another Haynes bomb which was intercepted by Dahl. Haynes cracked up again, but fine work by Dinius fooled both as the Chickadees shot down 34 and 14 to 4. The Chickadees kicked off and the half ended.

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In Dante celebration of rare prolate-spheroid transformation contest with LAPutrid came one Ihasbeen to fame and notoriety. Beak learns that chosen one was with a group of untouchables at infinite wetness source, dumping puckle on people's preventer of Inferno and Conflagration, who, assisting great odds agin him, did not press his request for them to retire from source, lest the wrath of Beak descend upon them, but rather informed nearby fuzzy one of group's presence.

Who Ees Mothra?

Fuzzy wuzzy garfs over and warns underlings and Ihasbeen to split for beddy-bye, whereupon the dry I suggests that cooser little number of him Compared to number of them. This answer displeased the pokey-loader, and he decreased I's degrees of freedom mechanically and stuffed him in fuzzmobile. Friends and acquaintances protested with wailing and gnashing of teeth, and the Constable, out of his deep and genuine love for Techsons, and out of fear of being minutely dissected, released our hero, with face-saving mouth-spewings. Thus triumph the forces of Mothra.

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