



Visiting ghetto residents will discuss viewpoints with Teckers in informal meetings.

Minority Employment Small at Institute

by Roger Goodman

Caltech has very few Negroes and members of other minority groups as employees. Any look around the campus will confirm this. More Negroes on campus have menial jobs than technical. The percentage of minority group employees, as with students, is far below the national or local population average. Twenty-four percent of Pasadena is Negro.

In an interview, Richard L. Mulligan, Director of Personnel, explained Caltech's employment policy. The policy has been one of non-discrimination, long before the 1964 Civil Rights Act required such a statement in writing. Lack of applicants from minority groups is the reason for small representation among Institute personnel.

Caltech's first responsibility in employment is to itself Mulligan implied. Department, faculty, and technical needs must be met. An attempt is made to get most personnel in the local area, for there is less of a transportation problem for people who live close to campus.

There is a scarcity of skilled workers to fill the lab technician positions. According to Mulligan, there is not an abundance of technically qualified persons in Pasadena and especially in minority groups. One must remember that Caltech is in competition with industry in employment.

Mulligan pointed out that the personnel office is mainly a service organization for Caltech. Besides advertising, it keeps files

of applicants and of job vacancies, and applicants are sent to those who request them for screening. But the employment office does not make the final decision. It is project heads or supervisors, either faculty or non-faculty, who do the actual hiring.

Thus, under the present system, it is the responsibility or supervisors to train. If they so desire, unskilled members of minority groups. This year Caltech started an apprenticeship program for the crafts which at present involves two apprentices. Priority for this program is normally given to present personnel. The individual nature of each job makes training programs com-

plex. They often take more than a month, during which a present employee is teaching a trainee rather than working. The crafts are the largest group of jobs that are at all similar, but even their diversity necessitates much individual attention from supervisors.

A few members of the faculty have invested some time in training unskilled people for jobs as technicians. For example, in the synchrotron lab a small number of Negroes have been given instruction and then employment.

Such exercise of initiative could be the basis for a major venture by Caltech, according to several professors, including Dr. (Continued on page 4)

Student Houses Host Local Ghetto Youths

by Dave Lewin

Do not be surprised next week if there are some new faces around your House for a few days. They are probably part of Phase Two of the Caltech Y's Ghetto and the City Program. In an attempt to bring about a confrontation between residents of the Pasadena ghetto and members of the Caltech student body, the YMCA is making available to each House several articulate ghetto residents for a period of three days, from Monday, Oct. 16 to Thursday, Oct. 19.

The program is meant both to expose Teckers to how young people in the ghetto view things and to give them a chance to see how we operate. Each house will have several hosts, who will put

the visitors up for the length of their stay. There is little structure to the program, each House organizing its own activities involving its guests.

All of the participants are young (they range in age from 17 to 25), articulate members of the Pasadena Negro community. Many are outspoken about such topics as Black Power, but they were not picked for homogeneity of viewpoint. Most of them are local students; several are from PCC. Later in the quarter there will be dinners hosted by faculty members for both the participants and a number of students. Since the visitors are from Pasadena, there is considerable opportunity for continuing contact between them and the student body.

Ad Hoc Committee Expires With Final Four Proposals

by Tom Carroll

The final four proposals of the now standing Ad Hoc Committee were presented at the Caltech Faculty Board Meeting on October 9, 1967. The Committee, originally formulated as a temporary one, has been in existence for about three years; the committee's last motion was a proposal to dissolve itself.

The first proposal concerned a revised freshman curriculum for the academic year 1968-1969. Departing from Caltech's classic rigid freshman schedule, the new idea requires only that students take the basic mathematics, chemistry, physics, and physical education courses. A student then will get his choice of hum-

anities course and electives courses, if he wishes. Eleven new electives are included.

Although opposition to the idea is imminent, enthusiasm is also strong. A meeting between Dr. Raymond Owen, chairman of the Committee, and a group of students, headed by ASCIT President Joseph Rhodes, is slated for tonight Dr. Owen feels that some definite action will be taken "by Christmas." Caltech is one of the few schools across the nation retaining the rigid freshman schedule. In defense of the plan, Dr. Owen quotes the latest agenda for the Faculty Board Meeting. "Conditions do change — they have changed — and the rigid (Continued on page 3)

Faculty Members Voice Views on Role of Scientist Social, Applied Scientist Must Solve Public Ills

by Robert P. Sharp, Professor of Geology

It is abundantly clear that scientific knowledge, know-how, and understanding have a major bearing on many aspects of public policy and government in the modern society. It is further apparent that scientists themselves must play a major role in seeing that science is brought to bear effectively on public problems. No one else can really do it. The basic questions raised by editor Les Fishbone's communication concern the degree and ways in which scientists should participate. It is to be understood that the term scientist is used here in the broadest sense to include applied scientists, engineers, and social scientists as appropriate.

Such people are already deeply involved in helping frame public policy and practices through service on countless advisory councils, commissions, committees, panels, boards and similar bodies within the Federal government and the National Academy

of Sciences. The degree of involvement has been increasing for years, and it is measuring the magnitude of this effort, but suspect that it considerably exceeds the estimates of both the scientific and lay communities. Caltech is a small institution, but its contribution to such activities in terms of faculty time, energies, and salaries constitutes a significant fraction of total Institute effort.

The involvement of these people is already advisory, and only a few participate in the implementation and execution of public policy. Nonetheless, it seems a fair statement that the scientific community is currently making a significant contribution to the framing of public policies and practices through this advisory service. The communication represented is often incomplete or ineffective, to be sure, but its magnitude cannot be dismissed as insignificant.

Political Scientists

(Continued on page 3, Col. 4)



Dr. Robert Sharp



Dr. Robert W. Oliver

Effective Political Acts Requires Time, Insight

By Robert W. Oliver, Associate Professor of Economics

In his Godkin Lectures at Harvard University in 1960, Sir Charles Snow offered as his "deepest reason for wanting scientists in government" the proposition that scientists are likely to possess the gift of foresight.

Any scientist realizes that his subject is moving in time — that he knows incomparably more today than better, cleverer, and deeper men did twenty years ago. He knows that his pupils, in twenty years, will know incomparably more than he does. Scientists have it within them to know what a future-directed society feels like, for science itself, in its human aspect, is just that.

While I am not prepared to admit that this sense of the future is unique among "hard" scientists, I certainly agree that too few people in public life consider current problems in terms of an adequate long-range perspective and would hope that more scient-

ists would involve themselves in the time-consuming and frequently frustrating inconsistencies of society's decision-making processes. The level of public debate and understanding of most issues is not high; the level of debate and understanding among high level public administrators is not high enough, particularly when advanced technology is involved.

Sir Charles also warned, however, that

To do any good, in his youth at least, a scientist has to think of one thing, deeply and obsessively, for a long time. An administrator has to think of a great many things, widely, in their inter-connections, for a short time. . . . I believe . . . that persons of scientific education can make excellent administrators . . . but I agree that scientists in their creative periods do not easily get interested in administrative problems and are (Continued on page 3, Col. 2)

Editorial

Scientists Must Be Vocal To Avoid Being Used

During the summer, the following letter was sent to about fifty faculty members at Caltech and to about 25 assorted Congressional leaders, science advisors, and other influential, science-related individuals.

In an interview published in the May 29, 1967 issue of the magazine, **U. S. News and World Report**, Dr. Edward Teller made the following statement:

"There is one thing I should like to add. It is my conviction that a scientist's responsibility is to apply science—and to explain as best he can both what he has found and the applications that appear possible, or have been accomplished. And there his responsibility stops.

"I am afraid I have transgressed: I have done more than explain in the sense in which a scientist should explain. I would be quite happy to say I apologize for it."

Later in the same interview Dr. Teller said:

"Look, we are influenced by many factors—emotional factors. You probably know—I have written about it in my book, **The Legacy of Hiroshima**—that in the war against Japan I felt we should demonstrate our atomic bomb and not actually use it, or use it only if the demonstration did not convince the Japanese."

These two passages illustrate a dilemma. In general, Dr. Teller advocated a detached attitude by the scientific community, while in the specific case he disagreed with the decision reached by the duly elected and appointed officials. Should he have intervened more stridently with his opinion?

This conflict characterizes a problem that will be facing the scientific community more and more as advancements proliferate—the impact of scientific and technological advancements on society. With knowledge of atomic and nuclear processes expanding, biologists elucidating the most fundamental genetic processes, automation and computer technology increasing in scope, and the exploration of outer space continuing, mankind faces rapid change in many areas. But a serious difficulty arises in deciding just how this change should be implemented. How shall the implementation be managed? Should, as Dr. Teller suggested, the scientist remain aloof from the decision-making process? Or should he involve himself in the time-consuming inconsistencies of politics? In another vein, is it his duty as a citizen to exhort even after describing his discovery?

This interaction of scientific advancement and public policy poses problems which must be debated. I feel that the pages of the **California Tech**, the weekly undergraduate newspaper of the California Institute of Technology, is a suitable place for such a debate.

I ask you to contribute an essay on some aspect of the interaction of scientific advancement and public policy because of your experiences in either field, your present position, or your ability to take a perspective view of this interaction. The essay will be published during the 1967-1968 school year.

Noting the significance of this interaction, I do hope you will contribute to this series.

Thank you very much for your time.

The essays by Drs. Oliver and Sharp represent the first two responses to this appeal. Among others, George P. Miller, Chairman of the House Committee on Science and Aeronautics, has indicated his willingness to contribute sometime during the year. The Tech will present this and other essays and also interviews with those who are unable to write regularly. We encourage discussion of the topics to which these men address themselves in our "Letters" column.

We cannot emphasize too strongly the importance of the scientist in public policy. Were he to stop doing research, the nation's economy would take a drastic plunge. Had he refused to build an atomic bomb, the world would be a markedly different place today. We are not placing value judgments on these particular decisions. We merely wish to state that the scientist holds an important post in modern society; he must do more than exercise his vote. His knowledgeable voice must ring loud and clear, or the politicians will yet be his and the world's Waterloo.

—Les Fishbone

Letters

Stefanko Critical

Editors:

The plight of the off-campus members of ASCIT is an oft-overlooked matter of serious concern to the Institute. I feel that only massive student action can rectify the horrible injustices that the Institute imposes on our fellow students.

I feel that we should urge the Institute to act upon the following recommendations:

(1) That the Institute request the city and citizens of Pasadena to offer only substandard housing to those off-campus.

(2) That the Institute levy a \$100-\$200 charge to all off-campus members so that their cost for room and board would be the same as the cost of living on campus.

(3) That they install long waiting lines around campus so that the OC members would not miss the spirit of cafeteria and underwaited meals.

(4) That the Institute patrol OC members for strict observance of all Institute regulations.

I am sure that once the students galvanize the Institute into action, this fairness and equality policy will create good will and increased school spirit.

Until these policies are enacted (or until I no longer have to live here) the Institute will have a hard time getting me to move off campus.

However, if there are still persons who insist upon moving off, and are, like myself, not guilty of the crime charged to us by the Institute, a good starter set of OC tableware, remember, is worth roughly \$4.58.

Mike Stefanko

Withhold Podium From Militants

Editors:

It is deplorable that the new trends in the so-called "civil rights" movement are away from true civil rights and toward general anarchy. If this trend should continue, it will certainly have an adverse effect on both the black and white populations of

America.

At the Black Power Conference in Newark, N.J., held only days after the tragic Newark riots this summer, H. Rap Brown, Ron Karenga, and other black militants declared virtual war on the white population of the U.S. Karenga, a militant black segregationist, advocated the creation of an independent Black America. The meeting, completely controlled by black power delegates, went to the point of preaching anarchy; demonstrating the irrationality of the current leftist "civil rights" movement. These persons are not working for civil rights; their goal is black control of America, or failing that, its destruction.

If these anarchists are permitted to incite to riot and cause the burning of cities, as in Detroit and Cambridge, Md., the resulting break-down in law and order will destroy America from within.

Weak-keeled judges who free insurrectionists proclaiming the doctrine of "free speech" and then turn their heads when "free speech" and "peaceful assembly" burn down whole cities only add fuel to the fire. Inciting to riot, rioting, and looting are crimes, regardless of whether they are committed in the guise of "civil rights," and they must be treated as such and be punished swiftly and severely. Failure to do so will only encourage further anarchy.

Should the Caltech YMCA provide a forum for these black power radicals it will not only disgrace itself, but also the entire Caltech community.

Alan J. Coles

Involvement Praised

Editors:

As a former Tecker, I am surprised and delighted to read of the heightened interest at Caltech in regard to the problems of the urban ghetto. Such prob-

lems can not be ignored by fully-thinking men. Thus it is quite encouraging to note that the image of Tech as a "scientific enclave" is being dispelled.

Here at UCLA I am taking part in a tutorial project which is rather well developed. Although Tech is a much smaller school, with its concentrated bounty of brains it ought to be able to effect a sizable achievement in helping the educationally handicapped.

America's biggest domestic problem is a challenge to every individual — perhaps more at Tech than elsewhere. Cheers to you in your efforts to meet that challenge.

Rick Sinclair

Notices

ORCHESTRA

Members of the Caltech community interested in playing in a chamber-symphony orchestra are invited to a rehearsal Sunday 15 Oct. at 1:30 p.m. in Culbertson.

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(Continued from page 4)

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Group Proposes Women

(Continued from page 1)
freshman curriculum has become an undesirable anachronism." Second suggestion of the Committee is to institute a General Studies option, by which an undergraduate may choose not to specify a particular field of study, but rather study science in general. It is expected that this proposal will be referred to some standing committee for further study.

Ad Hoc also brought up the topic of possible women undergraduates. The third proposal strongly urges inclusion of women as an intrinsic part of all phases of Caltech life, and charges that the present course of action is discriminatory. Another possible suggestion is to begin an exchange program between Caltech and a women's college from the surrounding area. The Committee warns, however, that unnecessary haste may cause an unhappy female student group not suitable for the Caltech system. According to Dr. Owen, this proposal will probably also be referred to a standing committee. The last bill submitted was, as said before, a motion to dissolve the Ad Hoc Committee. It also suggested

that a standing committee replace Ad Hoc on a permanent basis. Dr. Owen feels that this is a definite possibility, and that undergraduate students may be on the new committee.

All these proposals, of course, are now only in the formative stages. An informal discussion of them is slated for November 10, and final bills are expected on November 27.

Novices Useless in Politics

(Continued from page 1)
not likely to be much good at them.

In other words, if a scientist is "going good", as Hemingway used to say of his writing, he should stick to his slide rule not only because his science will be better, but also because his intervention on behalf of the public good may be worse. He is unlikely to devote the necessary time to analyzing a problem in terms of the ways and means of getting things done.

Beyond these rather obvious generalizations, it seems to me that the issue is one of expertise. While I agree that many scientists may possess in general an

Nixon-Percy Glorious Victors in YR Poll; Kennedy-Fulbright Lose

If Caltech undergraduates were the national electorate, the Republican ticket of Richard Nixon for President and Charles Percy for Vice-President would win the 1968 elections by a sizeable margin over the Democratic nominees, Robert Kennedy and

William Fulbright.

In a poll conducted by the Caltech Young Republicans in the seven student houses on the evening of October 9th, Richard Nixon received 15.4 percent of the votes for President. Following in the Republican column for President were Charles Percy, 13.0 percent; Nelson Rockefeller, 13.3 percent; and George Romney with 6.5 percent. Charles Percy was the leader among Republican Vice-Presidential candidates with 15.2 percent of the total Vice-Presidential vote, followed by John Lindsay, 12.4 percent; a tie between Nelson Rockefeller and Ronald Reagan with 7.3 percent; and George Romney with 5.2 percent.

In the democratic column, the most interesting result was the relative repudiation of the Johnson Administration, with Robert Kennedy and J. William Fulbright both tallying 5.8 percent of the Presidential vote to Lyndon Johnson's 5.1 percent incidentally the same percentage of the Presidential vote as Barry

Goldwater received. Among the Democratic Vice-President candidates, Hubert Humphrey led with 4.5 percent, followed closely by Fulbright with 3.8 percent and Bobby Kennedy with 3.5 percent.

Total vote by parties shows that an overwhelmingly majority of those polled prefer Republican candidates to the present administration or any other Democratic slate. Presidential Candidates in the Republican column received a total 74 percent of the vote, while Democratic candidates received 24 percent. The other 2 percent is represented by Peace Party candidates like Martin Luther King and Dr. Spock, independents like George Wallace and Dick Gregory, and major party darkhorses, among whom the most frequently mentioned were Edward Brooke, R. P. Feynman, and Carla Stebbins, an Oxy girl at the Page dinner exchange on the night of the poll.

The poll will be repeated in the future and hopefully extended to include graduate students and faculty members.

insight into the future, it does not follow that scientists know everything about everything. Indeed, a possible difficulty with the public policy endeavors of some scientists is that they may come to believe that they are experts in fields where they are, in fact, laymen. Thus, Dr. Edward Teller may be well qualified to judge the probability that the Soviet Government will fulfill its test-ban treaty commitments. Dr. Linus Pauling may be well qualified to warn of the genetic dangers of radioactivity in the atmosphere but less qualified to tell us how to induce the Soviet Government to remove its missiles from Cuba.

There is always a possibility that intellectuals, including scientists, will overgeneralize from what they know — particularly if, as teachers, they are accustomed to being judge and jury in the classroom. As my mentor at Princeton, Professor Jacob Viner, used to say, the "man in the street" is rarely altogether wrong: only the intellectual produces "sophisticated nonsense." This is, after all, the rationale of democracy, a political system which is slow to recognize flashes of insight or to lose its perspective completely.

With these caveats, I repeat my wish that scientist would devote more time to matters of public policy — to understanding the complex issues of the day and to acting to improve the lot of mankind. This is an obligation we all inherit because we are human beings. In my own case, if I may be forgiven a personal word, I feel greatly obligated by my election in 1965 to the Pasadena Board of City Directors. I am determined to do all I can do to improve our community while I am in office. Perhaps I can make up for lost time as a social scientist after I have served my

(Continued on page 7)

Efforts of all Scientists

(Continued from page 1)

The more delicate and difficult question raised by Les Fishbone pertains to the nature of involvement. Should scientists be politically active in attempting to frame public policy in those areas where their scientific knowledge has major impact? My answer is yes, by all means, but with qualifications as follows.

To begin with it would be a mistake, if not a catastrophe, if all scientists became politically active. Most scientists, in truth, are lousy politicians. Not only are they ineffective, they can be naive and unrealistic in their politicizing. Scientific accomplishment does not automatically qualify a person for political activity, nor does it grant him free license to pontificate in political arenas. To be effective, he needs to approach such activities with due modesty and humility. As an intelligent, well-informed (in some respects) citizen, he has the right, and indeed the responsibility, to participate in politics, but he is not to be regarded as an oracle just because he is a scientist.

Science and politics are to some degree incompatible. Science, like art, is a demanding mistress that requires high devotion and concentration with minimal distraction. Artists are

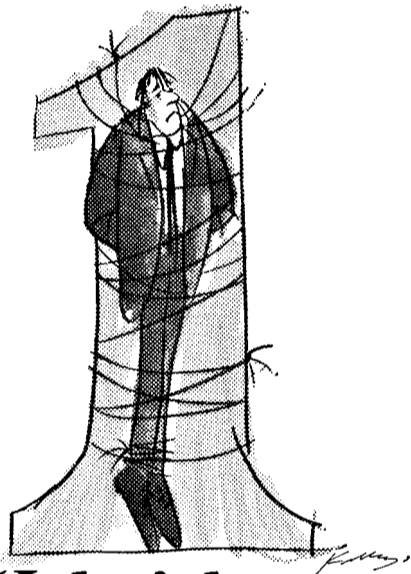
often accepted as peculiar people because of this, and scientists are not too far removed. If we ask that all or most of our scientists also double as politicians, we will, in time, end up with mediocre scientists and possibly poor politicians too. The comparison between a tool designed for a single purpose and an all-purpose tool is perhaps appropriate. A screw driver is a simple efficient tool, but an article designed to serve also as a pair of pliers, a can opener, and a butcher knife, is likely to be no good as a screw driver.

Double Life

There are, of course, a few able persons, superb scientists, who also have the genius to function effectively in politics. We should bless these people and make it easier for them to pursue the double life. There are also good sound scientists who, having made their mark in the profession, are now interested in turning to the world of public policy and politics. More power to them. However, as of now, the vast majority of scientists are probably neither able nor willing to lead the double life or make the change.

Still, it is hard to deny that a greater political involvement of scientists is needed on the public policy and political fronts. Over the long pull this can perhaps be brought about by a change in attitude on the part of both the scientific and lay communities with respect to such activities. Such a change is likely to come about slowly and only through the medium of education and public debates of the type Fishbone is trying to generate.

It would seem proper, indeed desirable, for our society to find ways of making it more rewarding and satisfying for scientists to be politically active. At present, many scientists must be reluctant because of the stigma within the scientific community often associated with political involvement. Perhaps a hope for the future lies in educating a new breed of scientist who comes out of colleges and universities with an understanding of and a respect for political science. Such is one of the objectives of the developing program in science and government at Caltech.



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House Population Wanes Markedly

Caltech is a school of constant change, not only from the educational and research viewpoint, but also from the standpoint of student housing and population. Comparing first term lists of 1966-1967 with those of the first term, 1967-1968, it was found that a total of 515 students, or a decrease of 9 per cent, are living in the undergraduate houses. All of the 195 freshmen admitted this year live on campus, as opposed to 167 or 83 per cent of the sophomores.

Of the juniors, 56 per cent or 96 of them are living here, while only 58 seniors, or 36 per cent, are residing in the Student Houses for the first term.

According to R.W. Gang, Manager of Residences and Dining Halls, several new procedures were instituted this year. First, a \$50 deposit was required from all applicants for undergraduate housing. Also, all students desiring to live on campus, with the exception of seniors, were required to sign full-year contracts. No increase in the housing fees is foreseen in the near future.

Innovations in food service included the cafeteria style noon meal in all houses, with the time also being changed from 12:00 noon to 11:30 a.m. through 12:30 p.m. One line in the North Complex currently is being kept

open until 1:15 p.m. as an experiment. A choice of different entrees is also being offered this year.

Dr. Robert Huttenback, Master of Student Houses, has stated that several new programs will be started in the near future. Among them will be a series of guests meals in the Student Houses, featuring various faculty members. Costs will be underwritten through the office of the Master of Student Houses. Also, the costs of dates' tickets are being reduced by 50 per cent in an attempt to bolster the cultural activities available to students.

Other proposed ideas include: expansion of YMCA sensitivity training programs, speed reading development classes, and formal receptions in the Student Houses for faculty members.

Dr. Huttenback also stated that the purpose of the increased number in programs for students was to help make "living in the student houses be not a penalty but a privilege."

Tech Workers Predominantly White

(Continued from page 1)

Robert Woodbury, Assistant Professor of History, and Aeronautics Prof. Lester Lees. They feel that major institutions with the power and prestige of Caltech could lead the way in finding creative solutions to the social crisis of employment for Negroes.

Woodbury thinks that Caltech, like some other institutions in Pasadena, has a white image that discourages Negroes from going out of their way to seek employment here. Ads cannot accomplish as much as direct contact with the Negro community. The Westside Study Center has done an admirable job in helping Negroes to find employment after first giving them needed training. More faculty members could maintain contacts at the Center and act as liaisons between it and those who do hiring at Caltech.

Lees described the Center's Job

Development Program, which has placed about 100 people in jobs in the last few months. Teams of Center members go around to employers, finding out what job openings there are and what the qualifications for them are. They then tell Negroes at the Center about the possibilities and give them training and counseling. Often prospective employers will agree to give special help as the workres are getting accustomed to their jobs.

Mulligan stated that Caltech does have contact with the Center and with three other similar agencies which also find jobs for minority groups. Two of these

contacts have existed for three years, and the other two for about a year.

There is also a New Careers Program at the Westside Center, which is training people for newly-created jobs. This prevents someone learning the skills for a job which might soon be automated.

It is the feeling of a growing number of people on campus that it is time for Caltech to begin to take an active part in helping underprivileged minority groups. There is the possibility of changes in the structure of institute hiring, both in formal guidelines and in informal work-in agreements.

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More Notices

(Continued from page 2)

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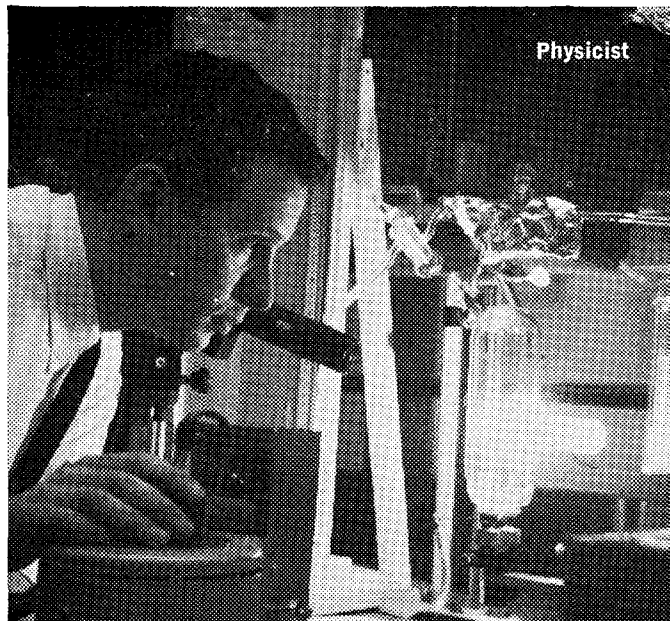
MATH CLUB MEETING

Thursday, October 12, at 7:30 p.m. in the Math Lounge on the third floor of Sloan. The E. T. Bell and Morgan Ward Contests will be discussed as well as future activities of the club.

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Into the Incinerator On College Papers

by Jim Cooper

Entering frosh Edward B. Barrelnaker of the Mythological Institute of Theocracy pranced happily up to the editor of the school paper, the **Theoc. Docket**, and said, "I wish to work on the newspaper."

"I hope you're a liberal," the editor replied.

"Well, I do happen to have liberal views, but what difference would it make if I didn't?"

"In that case, you wouldn't be able to work on the newspaper."

"Why not?" naively asked Barrelnaker.

"Don't you know that all college newspapers have to be liberal in their views since all intellectuals are liberal, and all students in college are intellectuals?"

"But isn't it the job of a college newspaper to stimulate student thinking?"

"Yes," grandiosed the editor. "All college newspapers strive to create a forum for the airing of all ideas, however radical, distasteful, or leftwing they may be."

"But if all college students are liberal anyway, wouldn't more thinking be stimulated by having a conservative columnist and not a liberal one?"

"What! And allow a person who has totally closed his mind to different ways of thinking to use our newspaper as a medium with which to spread his anti-intellectualism among us? Never!" decreed the editor. "Now let us drop the subject and proceed to more important matters. I want you to construct your first column along the lines that you are dissatisfied with. . . ."

Research Project Elicits Hopes

"This is an opportunity to get a lot done!" said ASCIT president Joe Rhodes in presenting one of his major arguments for a student research project. It was just such a project that was discussed at a meeting in Page House last Sunday, October 9. It is hoped that the project can be begun this year. In order to make this possible another meeting was held in Club Room 1 last night; if all went well there will be many more over the next few weeks.

Money will be needed to support this project. Rhodes stated that a decision would have to be made within the next few weeks

whether or not to go ahead since the student body would have to apply for a foundation grant. Rhodes was confident that such a decision could be made before the application deadline.

The project will truly be a comprehensive effort, giving it an advantage over research groups who study only one aspect of a problem. To be truly comprehensive, though, it will be necessary to "import" non-technicians and scientists, a problem which will have to be solved in the early stages of work. Such people will be needed to present social and other viewpoints which Caltech stu-

dents are not capable of providing. This, Rhodes points out, is one of the areas where Caltech could "get a lot done" — the area of science and Caltech's relation to the community.

Rhodes believes the project should not run more than one or two years, at the most. In this way, future students will not be forced into something they never expected or decided upon. A number of research topics are available, including the population explosion, air pollution, civil rights and ghetto improvement, or transportation; the decision will be made in the early stages of program development.

Rusk Cites Foreign U.S. Policy Commitments

The following article, which will be continued in succeeding weeks, is the text of a speech made by Secretary of State Dean Rusk before the Senate Preparedness Subcommittee on August 25, 1967. The speech entitled, "International Defense Commitments of the United States."

I am pleased to appear before this committee at the beginning of its hearings on the subject of this country's international defense commitments. I should like to begin by reviewing briefly with the committee the reasons lying behind those commitments.

The central object of our foreign policy, as I have stated before, is what it has been since the founding of the Republic — to "secure the Blessings of Liberty to ourselves and our Posterity." To this should be added our determination, expressed so eloquently in the preamble to the U.N. Charter, "to save succeeding generations from the scourge of war, which twice in our lifetime has brought untold sorrow to mankind."

The basic political and military means that we and many other nations have chosen to achieve a lasting peace is, in the words of article 1 of the U.N. Charter,

. . . to take effective collective measures for the prevention and removal of threats to the peace, and for the suppression of acts of aggression or other breaches of the peace, and to bring about by peaceful means, and in conformity with the principles of justice and international law, adjustment or settlement of international disputes or situations which might lead to a breach of the peace. . . .

The United Nations itself, of course, represents the world's most ambitious attempt to organize collective security during peacetime. It is well to recall that while the United Nations has perhaps fallen short of the far-reaching hopes that many entertained for it in 1945, the world organization has had many notable successes. The contribution it has made to maintaining some semblance of order in the post-war world has been indispensable.

U.N. machinery has been used for peacekeeping operations in such diverse situations as Indonesia, Greece, Palestine, Kashmir, Korea, Trieste, Suez, Lebanon, Laos, the Congo, West New Guinea, the Yemen, and Cyprus. We have participated in the financing of all these operations. We have furnished logistic support and personnel for international observer teams in some

instances. We contributed large combat forces in the case of the aggression against Korea.

The United Nations has not been able to deal effectively with all threats to the peace, nor will it be able to do so as long as certain of its members believe they must continue to compromise between their professed desire for peace and their short-range interest in achieving greater power or place in the world. Some member states have not been willing to place at the disposal of the United Nations means adequate to deal with all crises. There has not yet been found a solution to the problem of financing in the future such peacekeeping operations as those in the Middle East and in the Congo. Saddest of all, the United Nations has not been able to bring to the conference table the parties engaged in war in Vietnam.

Nevertheless, the United Nations continues to offer the nations of the world the most promising means of maintaining international peace and security. A major share of the credit for preventing the sharp clash between India and Pakistan of last year from erupting into a major conflagration must go to the prompt action of the Security Council in bringing world opinion so forcefully to bear on the parties.

Collective Security Arrangements

It was recognized from the outset, however, that the United Nations might not prove able by itself to carry the full burden of collective security. The charter explicitly provides for the existence of regional organizations, such as the Organization of American States, which would deal with problems of international peace and security in their respective areas. It also explicitly recognizes the inherent right of both individual and collective self-defense.

Consistently with the U.N. Charter, we have entered into multilateral and bilateral treaty arrangements with more than 40 countries of five continents. Chronologically, these arrangements begin, appropriately enough, with the Inter-American Treaty of Reciprocal Assistance, commonly called the Rio Treaty, of 1947. It is the basic collective

security instrument of the inter-American system and has been ratified by all 21 American Republics. The Senate gave its advice and consent to ratification on our part by a vote of 72-1.

While we were turning to the problems of collective security in our hemisphere, the nations of Western Europe, faced with the fact of Soviet military power and unmistakable evidence of pressures by the Soviet Union against Europe, were organizing for security on their continent.

In March 1948, Belgium, France, Luxembourg, the Netherlands, and the United Kingdom concluded the Treaty of Brussels, by which each nation pledged itself to assist the others in the case of military attack. One month later these five nations established a permanent military committee.

In June of 1948 the U.S. Senate adopted the resolution proposed by Senator Arthur Vandenberg calling for the "Association of the United States, by constitutional process, with such regional and other collective arrangements as are based on continuous and effective self-help and mutual aid, and as affect its national security." Pursuant to the Vandenberg resolution, negotiations for a wider defense arrangement in the North Atlantic area were begun, and in April 1949 the North Atlantic Treaty was signed by the United States and Canada and 10 nations of Western Europe. The Senate advised ratification by a vote of 82-13. In 1952 Greece and Turkey became parties, and in 1955 the Federal Republic of Germany did so.

The subsequent commitment of forces to NATO by the member countries, and the integrated planning for the use of these forces, represent an achievement in international organization that it had been hoped would be reached in the United Nations. Despite explicit provisions for such arrangements in chapter VII of the U.N. Charter, it has not proved possible to implement them within the world organization.

U.S. Security Interests in Asian Area

The outbreak of the Korean war in 1950 in an area in which

(Continued on page 6)

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Conference to Reveal Selves

The Caltech YMCA is sponsoring a personal encounter weekend to be held from Thursday evening, October 19, through Sunday afternoon, October 22, in the Brea Canyon area. Persons interested in registering for one of the limited number of openings may do so by depositing \$15 with the secretary in the Y office (Winnett) by 5:00 pm today (Oct. 12). The money will be returned if no further places are available. There will be about twenty-five students and faculty members attending the conference

from Caltech and approximately an equal number of girls from Oxy, Scripps, UCLA, and USC. According to publicity released last weekend on the five campuses, "The conference will present an opportunity for you to become more sensitive to the emotions of others and to express your own feeling more effectively." According to Chris Dede, who is the YMCA Sensitivity Program Organizer, this conference is the first of three planned for the school year. The Y has begun

to expand the number and type of sensitivity conferences because of the overwhelmingly favorable response from students who have attended previous conferences (including one held this past summer). One of the purposes of the Y Program is to expose as many members of the Caltech community to the personal encounter experience. The last chance to register is before 5:00 pm today. All those who attempt to register after that time will be turned away.

Undergraduates to Sit on Institute Faculty Boards

The student body of Caltech is now eligible for seats on three faculty committees: the Committee on Institute Assemblies and Programs, the Academic Policies Committee, and the Committee on Undergraduate Student Relations. The two undergraduate student members for the Committee on Institute Assemblies and Programs will be the ASCIT Social Chairman and the ASCIT Activities Chairman; but seats are still open on the Academic Policies Committee and the Committee on Undergraduate Student Relations.

Academic Policies Committee, thus leaving two more seats to be filled by undergraduates. The Committee on Undergraduate Student Relations is giving the student body ten seats on the Committee and thus making the number of students equal to the number of faculty members on that committee. Anyone interested in sitting on either the Academic Policies Committee or the Committee on Undergraduate Student Relations should contact Gavier Miyata in Blacker House before the ASCIT Board meeting next Monday night. The applicants will be interviewed at the meeting and the final selection will be made that night.

The ASCIT Board of Directors has decided to make the Chairman of the EPC a member of the

State Secretary Discusses Affairs

(Continued from page 5) we had entered into no collective security arrangements brought home forcefully the need to try to prevent potential aggressors from again miscalculating what our reaction would be to an aggression threatening U.S. security interests as well as the peace of the world. In August 1951 we signed a mutual defense treaty with the Philippines, to which the Senate gave its advice and consent by a voice vote. The next month saw concluded a security treaty with Japan, to which the Senate gave its advice and consent by a vote of 58-9, and a tripartite security pact with Australia and New Zealand, commonly known as ANZUS, approved by the Senate by voice vote. Mutual defense treaties were also concluded with the Republic of Korea in October 1953 and the Republic of China in December 1954, and a new Treaty of Mutual Cooperation and Security with Japan was signed by the United States in January 1960, replacing the treaty signed in 1951. The Senate gave its advice and consent to these treaties by votes of 81-6, 65-6, and 90-2, respectively.

danger in accordance with its constitutional processes. It was well understood at the time that these obligations covered the case of attacks by the North Vietnamese regime against parties to the treaty and protocol states. In the event of other than Communist aggression in the area, we are obligated to consult immediately in order to agree on the measures to be taken. The Senate's advice and consent to this treaty was given by a vote of 82-1.

The committee is not impervious to the risks which this treaty entails. It fully appreciates that acceptance of these additional obligations commits the United States to a course of action over a vast expanse of the Pacific. Yet these risks are consistent with our own highest interests. There are greater hazards in not advising a potential enemy of what he can expect of us, and in failing to disabuse him of assumptions which might lead to a miscalculation of our intentions.

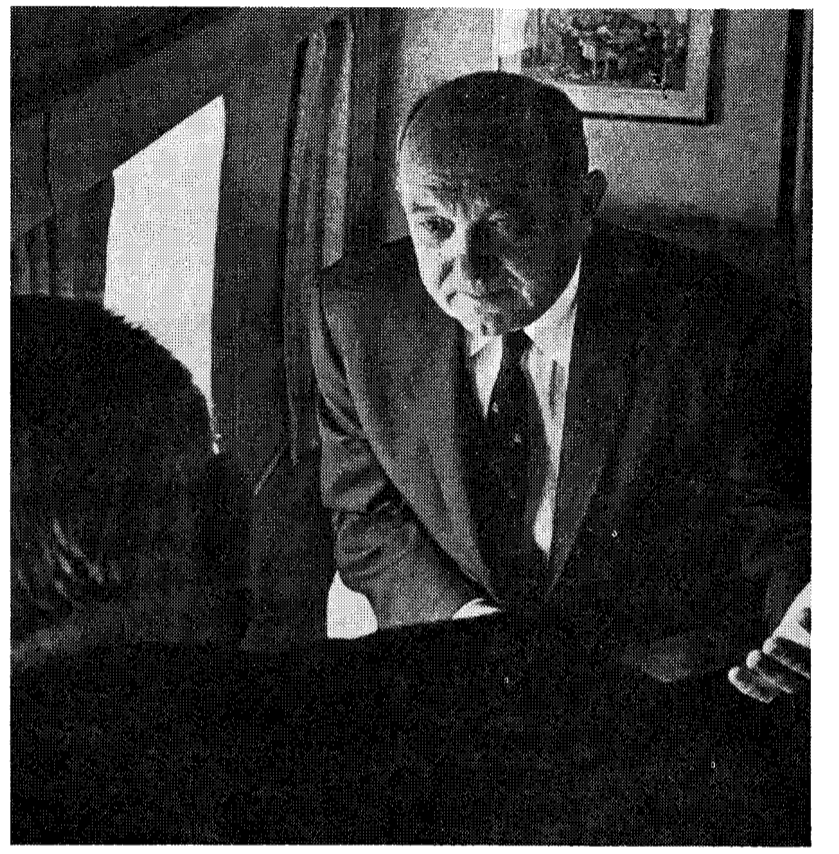
Purpose of U.S. Defense Commitments
These treaties represent legally binding commitments to take appropriate action at the request of an ally that is the victim of aggression. These commitments do not bind us to any particular course of action. Most of them state that in the event of aggression we would act to meet the common danger in accordance with out constitutional processes. How we act in fulfillment of these obligations will depend upon the facts of the situation. Some situations will require less participation on our part than others. What is fundamental to the fulfillment of our obligations under these agreements is that we act in good faith to fulfill their purpose. Thus, while the agreements permit great flexibility in choosing the means by which we would assist other countries in their defense, we could not expect that we would be regarded as fulfilling our obligation through the provision of minimum assistance when the survival of the country concerned clearly necessitated greater aid.

I should like to emphasize that our defense commitments are fundamentally efforts to avoid the eventuality of armed conflict in which this country might become involved. These commitments do not increase the likelihood that we will have to fight. Rather, by making clear in advance our estimation of the requirements of national security, they reduce that likelihood.

The Committee on Foreign Relations well expressed the purpose of these commitments in its report on the Southeast Asia Collective Defense Treaty. In urging the Senate to give its advice and consent to the treaty, the report stated:
The principle underlying this treaty is that advance notice of our intentions and the intentions of the nations associated with us may serve to deter potential aggressors from reckless action that could plunge the Pacific into war. To that end, the treaty makes it clear that the United States will not remain indifferent to conduct threatening the peace of Southeast Asia. . . .

In addition to United States treaty commitments, both the Congress, through joint resolutions, and the executive branch, through executive agreements and statements by the President, have indicated the United States' interest in the security of a particular area or a particular country. Our interest in the stability of the Near East has been indicated through such means. In the 1950 tripartite declaration the United States, the United Kingdom, and France expressed their opposition to the use of force or threat of force in that area. Our policy was given further expression by the 1957 joint resolution of Congress to promote peace and stability in the Middle East. There the Congress declared that the "United States regards as vital to the national interest and world peace the preservation of the independence and integrity of the nations of the Middle East" and that "if the President determines the necessity thereof, the United States is prepared to use armed forces to assist any such nation or group of such nations requesting assistance against armed aggression from any country controlled by international communism."

Pursuant to this authorization, our interest in the security of the Near East has been further evidenced by our association, albeit as a nonmember, with the



Secretary of State, Dean Rusk, speaks with President Johnson.

Central Treaty Organization. The United States maintains membership on the Scientific Council and on the Military, Economic, and Counter-Subversion Committees of CENTO, and is an observer on the Ministers Council. In the 1958 declaration respecting the Baghdad Pact the United States expressed its intention to cooperate with the members of the pact for their security and defense and followed that up with identical bilateral agreements of cooperation with Iran, Pakistan, and Turkey. These

agreements declared that in the event of aggression the United States would take such appropriate action as may be mutually agreed upon. In Europe and in Africa we have similarly indicated our interest in the security of particular countries not covered by treaty arrangements. For example, the 1959 agreement on cooperation with Liberia, an expression of the historic ties that have existed between the two

(Continued on page 8)

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Tech Tankmen Become First Squad to Win

The water polo team became the first Caltech team to turn in a victory with a 6 to 2 defeat of Citrus CC. The win broke the losing streak at four games, after two losses earlier in the week.

Wednesday Cal State Fullerton invaded and won 10 to 5 with Henry DeWitt scoring all 5 goals. Then the team traveled to San Fernando State College and played its worst game yet this year, losing 12 to 3.

Saturday's winning effort featured a strong defense which only allowed one goal, the other score being on a penalty shot, and a more varied offense with Norm Whitely, Mike Bell, and DeWitt each contributing two goals.

The result of the game Wednesday were not in for the deadline, and Saturday the team travels to Claremont and Pomona for a tournament; the teams to be played are as yet unknown. Next Wednesday the league season begins with the team to beat in the league, CHM, at Caltech.

More Oliver

(Continued from page 3) term.

Without question, many Caltech graduates will have significant opportunities to influence public policy at the national and international levels, as well as locally. To them I would say, "Do what you can. There is much joy in service. But serve at the right time, in the right capacity, and with proper insight into yourself as well as the future."

TECH Sports

Tech Loses to Oxy, 54-7; Beavers Play Pomona Next

The Occidental College Tigers handed the Beavers of the California Institute of Technology their second defeat of the year in a night game last Friday at the Rose Bowl. The score was 54-7, as Caltech dropped her twenty-fifth straight football game.

The Beavers' last victory was scored the first game of the 1964 campaign. Friday's victory brought Oxy's season's record to 2-1; they are now 1-0 in SCIAC competition and Caltech 0-1 since last week's match was a conference contest.

Although the Tigers were clearly the better squad, the rout—which seems to be becoming an annual affair—could have been avoided. The Engineers made just about every mistake a team could in a single game of football.

They blocked poorly if at all, especially on kick off returns. The aggressive Tigers seemed to be able to get to Tech quarterback Tom Burton (offensive back of the week) at will, as CIT's offensive line seemed to just crumble.

Another deficiency was the inability of Caltech's defensive secondary to get position in order to stop the key third down passes and the long gainers on the

ground. If this were not enough, the highly-pressured QB threw two interceptions which were returned for touchdowns. Also, Tech receivers dropped passes which they should have caught. When a team makes as many errors as the Beavers did, it's no consolation that Oxy's squad was faster and more experienced.

Despite the generally poor showing by the Engineers, there were some commendable individual performances. Burton ran well on sprint outs and managed to complete 17 of 36 passes. Frosh Tom Blaschko (6'1", 205 pounds) was selected by the coaches as offensive lineman of the week for his play at tackle.

Tom Bicknell intercepted an Occidental aerial and made several sure tackles and was named defensive back of the week as a result. John Frazzini outshined all Teckers, however, with his play at defensive end. He pressured the Oxy QB all night, made numerous tackles and had a hand in several others, and punted for a 37 yard average to boot.

The Beavers will go at it again this Saturday night when they travel to Pomona for an 8 p.m. contest. The coaches are confident that this is a game that the Engineers can win.

Freshmen Distance Runners Shine in Loss to Claremont

Ah, for the days when knights were bold, men were men, and giants walked the earth. In ages past if the Caltech varsity couldn't beat anybody else, at least it beat its own frosh team, but Friday afternoon at Griffith Park the millenium is come.

Because Caltech did not have enough frosh to form a team, it ran them as non-competing entrants, against Claremont-Harvey Mudd, whose frosh ran as varsity entrants against the Caltech varsity. Final score was 25-30, Caltech losing.

A CHM frosh, Hoyt, placed first around the green 4-mile grass course in a time of 24:01, followed closely by Caltech's own Dave Hermeyer at 24:06. After

Hermeyer came CHM's Houle, then strung out behind like the out-of-shape puffers that they are were Van Stoecker (25:05). Ed Thompson (25:11), Mike Meo (25:55), and Bob Jackson (26:07).

Much brighter was the performance of the freshmen, who led the whole race and finished 1-2-4. Tim Tardiff was first, although not officially entered, at 23:03, followed by Dick Ledford at 23:31. Deceptively small Martin Smith flew into fourth place (24:22). If the frosh turn varsity this year Caltech will have a good team; if not, this will be a "growth year."

Loses a Pair Soccer Team

Caltech's courageous eleven plus five journeyed to Redlands last Wednesday to meet the Bulldogs' strong soccer team. Unfortunately, the Beaver soccer team acted like the football team and lost, 4-0. But everyone was able to participate in the game. Because of a strange lack of game officials, Caltech's manager Don Engleman got to run up and down the field and chase the ball when it went out of bounds.

The Beavers apparently like their home field better. On Saturday, for example, they hosted an extremely skillful team from the University of California at Santa Barbara (UCSB). Tech held UCSB scoreless until late in the final quarter. Then the Engineers defense eased up a bit, and Santa Barbara scored two quick goals. That was enough as the final score was UCSB, 2; CIT, 0.

Caltech's freshmen stood out on both offense and defense. Goalie Joe Templton was kept busy and turned in a fairly good performance. Frosh Jerry Eisman teamed with senior Len Erickson to provide the impetus for Tech's drives toward the goal. Unfortunately for the Beavers, the drives usually floundered about mid-field.

The Beavers were hampered by a lack of reserves and by injuries to key personnel. Caltech played with only four instead of the usual five reserves, an unusual situation for a home game. The contest was very poorly attended.

Dabney House Wins Discobolus Game from Flemings

After five exciting innings of inspired softball, Dabney House emerged as the 13-7 winner over defending champion Fleming House in the first Discobolus match of 1967. The game was staged last Sunday afternoon on the varsity baseball diamond.

Fleming opened the game with the gusto characteristic of Discobolus contests by jumping to a commanding 4-0 lead in the top half of the first inning. It took the Darbs only the bottom half of the inning, however, to demonstrate that they were still very much in the game, as they poured across four runs of their own to tie the score.

The fighting Flemings retaliated with three more runs in the second inning. But before that same inning was over, the score was knotted again at 7-7 as the Darbs staged a three-run rally. At this point, it was generally agreed that this couldn't go on much longer.

It didn't go on much longer. Dabney pitching clamped down and shut the Flemings out for the last three innings. Meanwhile, however, the Darbs' bats were anything but silent, as they pounded the ball for four runs in the third inning and two more in the fourth.

By virtue of her victory Sunday, Dabney House leads the Discobolus competition with three trophy points. Fleming is second with one point. All of the other five houses are tied for third place with zero points.

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Throop Memorial Church, a Unitarian Universalist church, sponsors us, although few of us are actually Unitarians. Our group is widely varied and is made up of students from Cal Tech, Oxy, Cal State, PCC, and others.

If you would like more information, drop a note to:

College Group
Throop Memorial Church
300 So. Los Robles Ave.
Pasadena, California

Strategic American Positions Abroad President Greets Incoming Faculty

(Continued from page 6)

countries, states that in the event of aggression or its threat the two Governments will immediately determine what action may be appropriate for the defense of Liberia.

Similarly, the joint declaration concerning the 1963 renewal of the defense agreement with Spain states that:

A threat to either country, and to the joint facilities that each provides for the common defense, would be a matter of common concern to both countries, and each country would take such action as it may consider appropriate within the framework of its constitutional processes.

Warning to Would-Be Aggressors

Joint resolutions and executive agreements such as I have discussed, as well as statements by the President indicating our intentions should a country fall victim to aggression, may be regarded as supplementing our treaty arrangements. In common with the commitments expressed in those arrangements, they serve two purposes:

1. They warn potential aggressors that aggression would risk action by the United States.

2. They provide confidence to the country concerned, which knows that the United States does not lightly indicate its intention to provide support.

As the subcommittee is aware, the United States has military bases in a number of countries in different parts of the world. Most of these are in countries with which we have defense and security treaties. Whether or not we have such a treaty with a particular country, the presence there of a United States base clearly signifies a special interest and concern on our part with the security of that country. In the event of aggression against the country, or a threat to its security, which at the same time affected our military base, the United States would, of course, consult about the situation with the host government.

I should add a further word on the possibility that the United States armed forces might be used in collective defense against an armed aggression. No would-be aggressor should suppose that the absence of a defense treaty, congressional declaration, or U.S. military presence grants immun-

ity to aggression. For one thing, the responsibilities of the United Nations with regard to aggression are worldwide. There have been many occasions when the United Nations has moved to meet a breach of international peace. The United States, as an important and responsible member of the United Nations, may be required in the future, in accordance with established charter procedures, to take action that cannot now be anticipated with any precision. Moreover, although the matter is somewhat hypothetical, because we are looking into the fog of the future, the United States cannot overlook the possibility that its own national interests and its concern for the maintenance of international peace might require us to take some action we do not now foresee. This would be for the President and the Congress at that time to determine in the light of the circumstances.

The United States does not conceive itself to be the world's policeman. A glance at the lengthy continuing agenda of the U.N.

Security Council discloses many situations posing potential threats to the peace in which the United States has not undertaken any direct responsibility. In addition, other nations, of course, have responsibilities that do not directly involve the United States. For example, the United Kingdom, Australia, and New Zealand have commitments to their fellow Commonwealth member, Malaysia. On the African Continent we have been pleased to see that the Organization of African Unity has succeeded in dealing with disputes between African states.

So we are not trying to establish a pax Americana, but rather a general system of peace among nations. The United States remains committed, over the long term, to strengthen world machinery for keeping peace throughout the world. This cannot be the task of one nation or a few. We look forward to the time when all will join in the effort. Meanwhile, we shall do our part in the United Nations and in the discharge of our other security commitments.

The appointment of 30 new members of the faculty of the California Institute of Technology was announced this week at a tea given in their honor by President and Mrs. L. A. DuBridge at the Athenaeum faculty club on the Caltech campus.

The appointments include two new professors, two visiting professors, twelve visiting associates, two associate professors, one visiting assistant professor, two senior research fellows, two assistant professors, four lecturers, two instructors, and one physical education coach.

The professors are: Dr. Herbert B. Keller, applied mathematics; and Dr. Burton H. Klein, economics.

Visiting professors: Dr. Heinz Konig, mathematics; Dr. Frederick J. Beutler, electrical engineering.

Visiting associates: Dr. Jack H. Waggoner, Jr., physics; Dr. Bruce J. Rogers, biology; Dr. Thomas S. Lundgren, applied mathematics; Dr. Lionel Salem, Dr. Mel-drum B. Winstead, Dr. Robert

Stolow, Dr. Joseph E. Earley, Dr. Philip C. Myhre, and Dr. Herman E. Zieger, chemistry; Dr. Howard B. Wilson, Jr., engineering; Dr. Howard L. Rolf, mathematics; Dr. Sedat Serdengecti, jet propulsion.

Associate professors: Dr. Duane O. Muhleman, planetary science; Dr. Thomas J. Ahrens, geophysics.

Visiting assistant professor: Dr. Theodore E. Petrie, mathematics.

Senior research fellows: Dr. James E. Broadwell, aeronautics; Dr. K.S.P. Kumar, electrical engineering.

Assistant professors: Dr. David F. Goslee, English; Dr. John H. Seinfeld, chemical engineering.

Lecturers: Michael P. Schon, speech and director of forensics; Dr. Harvey A. Averch, economics; Dr. Robert R. Wark, art; Dr. Alan Rembaum, chemical engineering.

Instructors: Dr. Eberhard K. Jobst, German; Dr. Douglas M. Fambrough, biology.

Swimming coach: Lawlor M. Reck.

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