

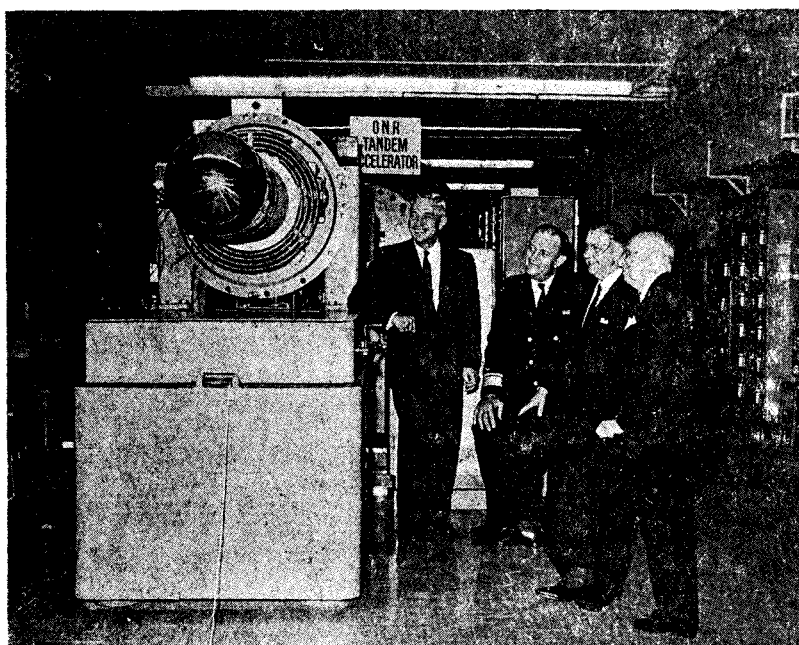
Sloan Dedicates Lab Thursday; Killian, Bennett Attend Rites

"The Alfred P. Sloan Laboratory of Mathematics and Physics is an asset of enormous value to the Institute." So spoke Dr. Lee A. DuBridge, Caltech president, in last week's dedication of the new lab.

Alfred P. Sloan, Jr., honorary board chairman of General Motors; Rear Admiral Rawson Bennett II, Chief of Naval Research; and Dr. James R. Killian, chairman of the corporation of MIT, were the speaker-guests at Thursday's dedication.

The air-conditioned concrete building, converted from Caltech's old high voltage laboratory to provide 50,000 square feet of floor space, and the new tandem electrostatic accelerator were dedicated in separate ceremonies. The Alfred P. Sloan Foundation donated the funds for the construction of the laboratory; the Office of Naval Research is underwriting the cost of the new accelerator.

During the dedication of the building, Dr. DuBridge unveiled the painting of Mr. Sloan that will hang there. Albert B. Rudnick, chairman of the Institute Board of Trustees, and Dr. Robert F. Backer, chairman of Caltech's Division of Physics, Mathematics and Astronomy, spoke.



At the dedication of the electrostatic accelerator and the Sloan Laboratory of Math and Physics are, left to right: Dr. DuBridge; Rear Admiral Rawson Bennett II, chief of naval research; Dr. James R. Killian, and Alfred P. Sloan, Jr., president of the Alfred P. Sloan Foundation.

The laboratory provided, for the first time, enough space to house the Institute's fast growing math department. Physics

research, centered around the new accelerator and low temperature phenomena, will be done in the lower two floors of the five-story building.

Shakel Speaks

Tech, MIT Heads Miss Student Feelings

BY DOUG SHAKEL

Last Wednesday, Dr. James R. Killian delivered a paper concerning the role of science in foreign policy.

Views expressed by Dr. Killian gave renewed importance to the recognition that trained and able scientists must come to occupy numerous positions of responsibility and authority in the government.

QUESTION PERIOD

In the question period Dr. DuBridge pointed out that while the type of man graduating today from Caltech and M.I.T. has a scientific background that is certainly that which is required by the needs of our nation today, he is very clearly lacking in ability, training, awareness, and/or motivation to fill the role of the "scientist in government". How could our educational system overcome the problem?

Dr. Killian replied that the necessary interest and ability existed, and that opportunities that are becoming increasingly available to the top scientists now being produced are helping to overcome this problem.

He then stressed that the broad, basic type scientific training that the leading scientific and engineering institutes have come to adopt and are constantly expanding and exploiting, are certainly producing a more desirable and more useful type of scientist for roles in public service.

ENCOURAGING APTITUDES

I raised Dr. DuBridge's question a second time but requested that the question be answered with emphasis placed on what institutes such as M.I.T. and Caltech could or should do to enable or encourage such desires or aptitudes to be exploited on the undergraduate level; this is as

opposed to merely making available opportunities to pursue such endeavors some time.

Dr. Killian replied with what was admittedly no more than a broad paraphrase of his answer to the previous question: That a broad, basic type of scientific education such as has been developed at the more advanced educational institutions is a step in the right direction and superior to the older or narrow type of engineering training, once so widely given. Dr. DuBridge nodded agreement with Dr. Killian's reply.

I considered the answer wholly unsatisfactory. Dr. Killian's reply and Dr. DuBridge's implied concurrence pointed up the crux of the problem immediately at hand.

LACK IDEAS

The persons responsible for the character of the leading educational institutions of this country do not have any specific notions concerning the problem of educating and producing the type of person they all agree we need.

That the scientist in government is urgently needed, that several different types of roles must be filled by such men, and that a number of specific qualifications must be met by such men is understood and agreed upon and is being refined by additional application of thought.

Yet plans for — and apparently suggestions concerning — specific changes or innovations in the educational problems of the institutes most likely to produce such men are wholly lacking.

It is easiest to criticize the heads of these institutions for not having done something about this glaring need that is so much closer to their immediate responsibilities.

But is more important to rec-

ognize this lack and admit its importance, and then strive to fill this need with ideas to develop meaningful plans and to implement these plans with due determination and a prudent amount of urging.

The entire problem of leadership and the role of the scientist in society is of importance to persons on both the issuing and receiving end of the Caltech educational process.

It is felt by many, including myself, that this problem is intimately involved with the problem of why the Caltech student that graduates, while more successful than contemporary graduates of other schools, falls far short of what was honestly and unbiasedly appraised as his potential capability upon admission to the Institute.

CHALLENGE

I suggest that Killian's inadequate answer be treated as a challenge to those individuals interested in this problem; a challenge to start thinking and moving toward a method by which the type of man required by the "scientist in government" can be aggressively sought out, encouraged, and prepared simultaneously with his education as a top-notch scientist or engineer.

If those faculty members, as dissatisfied with Dr. Killian's answer I am, will publicly state their recognition of a lack of effort to meet this educational challenge and will apply their knowledge and experience to producing, with all due speed, concrete and worth-while proposals and changes in the Caltech educational setup, I am sure they will find an eager, receptive, and capable segment of the Caltech student body as excellent raw material for a sorely needed product.

Killian Calls For Gov't Scientists

BY CRAIG BOLON

"Science and Foreign Affairs" was Dr. James R. Killian's topic in the latest lecture of the Carnegie Series. He spoke at Culbertson Hall Wednesday, November 30, at 7:30 p.m. Killian is Chairman of the Corporation of M.I.T., and recently retired from the position of Special Adviser to the President for Science and Technology, which was created especially for him.

The national goals and international aims of the United States first met Killian's scrutiny. "The overriding aim of our society is the achievement of a less dangerous world." Naturally, as the basis of our foreign policy he named military strength, and he emphasized this power as a deterrent to war (in the interest of a "less dangerous world"?). To coordinate such great projects as those of defense systems, we need many trained and dedicated project engineers. Several times during his speech, Killian stressed the growing demand for these men of decision.

This call upon education, if underpublicized, is at least widely recognized in scientific circles. But Killian believes that a more pressing, and less stressed, demand upon scientific education is to prepare men to carry its culture into the field of government, and especially, of foreign affairs.

At this point Killian reached an emotional peak as he deplored the turning of scientific achievement to propaganda. "Spectacular accomplishments," he declared, "are no index of national strength. True power lies in a balanced creative program." As a point in reference to the danger of the United States' engaging in a "prestige race", Killian exhibited the Man-in-Space Program. This he implied to be a needless and runaway expenditure, for the present.

Instead of creating world tension through the propagandizing of science, the speaker believed it imperative to leave science in the hands of the scientists. Killian castigated the petty limitations often placed on visiting

scholars by the U.S. and the U.S.S.R., but he noted with approbation a trend toward improvement in this country.

On arms control, "now the most intellectually challenging problem of our times," Killian commented that, again, what was lacking was the freedom of scientists to work internationally and to have force behind their conclusions. Throughout his speech, he lamented the paucity of trained scientists in government, and called for a social, cultural, and economic incentive to attract them. He also favored the stimulation of our educational system toward the training of these scientists for administration and the foreign service.

As a step toward this crossroads of science, technology, and international affairs, Killian proposed 11 points, including the establishment of an independent, fully licensed Presidential committee, composed of scientists and technicians, and empowered to direct research in and determine the national policy of arms control.

In closing, once more Dr. Killian emphasized our intellectual and scientific leadership as the source of national power and world authority.

Katzenback Eyes Control Problems

Edward L. Katzenback will lecture on "Command Control Problems," at 1 p.m. today, in 119 Kerchhoff. Katzenback is a member of Air Research and Development Command, U.S. Air Force.

Dr. George Mayhew, Caltech English professor and personal friend of Katzenback, described him as a "historian with administrative experience." Katzenback has published articles concerning military reorganization in recent issues of The Reporter. He did his graduate work at Harvard, and was Director of Harvard's Defense Study Program before going to work for the Air Force.



Pictured here are part of the 50 couples that attended the annual ASCIT Christmas dance in Dabney Hall Lounge.

Letters

Institute Is No Help In Guarding Student Autos

Editor, California Tech:

It is my opinion that a very real and growing problem on this campus has too long gone unpublicized, both in regard to consequences and to attitudes expressed by responsible Institute and community agencies. This is the problem of theft and vandalism to student automobiles in the over-night Keck and T.P. lots. Based upon information now available, the value of property lost so far this term is around \$1200-\$1500, and increasing steadily.

The IHC considered this problem briefly early in the term, but after token inaction, the matter was dropped. I personally took the problem to the BOD some five weeks ago, where the board unanimously approved a resolution to be presented to George Green and the Physical Plant Department. Unfortunately, ASCIT has not followed up this resolution, and even the ASCIT president is unaware of the effect of this resolution.

On Wednesday, November 30, I discussed the matter with Mr. Hertenstein, who is head of the physical plant, and directly in charge of student parking. He stated that, although he did not know of the ASCIT resolution, nor of the extent of the theft and vandalism in the lots, lighting costing \$12,000 would be installed. However, this lighting will not be in operation before next March, and even then, most of it will be installed in parking areas designated for daytime parking only. Mr. Hertenstein also stated, as the ASCIT resolution requested, that the student lots were placed on the campus guards' route, and were checked on foot every hour. In view of the seriousness of the problem, however, he stated that he would immediately double the frequency of guard inspection to every 30 minutes.

Observation three nights later revealed something less than promised by Mr. Hertenstein. The guard appeared in T.P. at 2:15 a.m. and at 4:30 a.m., both times in a car. In the first check, the guard gave ample warning to would-be thieves, not only by headlights, but by parking in front of, and inspecting the gym for a full five minutes before driving through the student lot. At 4:30, the guard did not even enter the student lot, and, furthermore, turned out the spotlight on the gym, depriving the northwest corner of the lot of the small light it had!

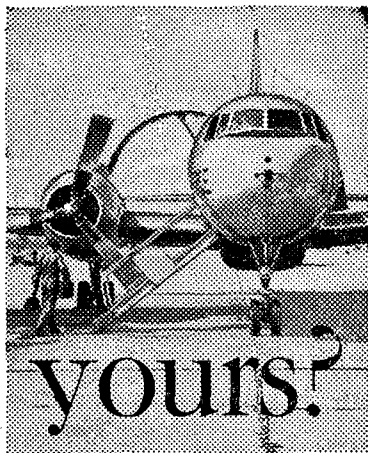
It is a well-known fact that where lighting increases, crime decreases. The T.P. lot is about 15 per cent illuminated by a single mercury vapor lamp. The same is true of the Keck lot, with perhaps 20 per cent of the lot receiving significant lighting. Other lighting is available in other areas of T.P. and the Keck lot. In fact, there are roughly 100-125 parking stalls in all of T.P. and Keck which receive substantial illumination from existing installations.

The Pasadena Police Department has been contacted in nearly all cases of theft, and is highly consistent in its expression of concern—"Really care". No cooperation of any sort has yet

been obtained from this beloved group.

It is my contention that the Institute is unfair in insisting that students park in darkened areas where this action I have described is known to occur so frequently. I would suggest that, until such time as adequate lighting is provided in present overnight areas, students should be allowed to park overnight in areas where lighting is now available. The automobile-owning student body cannot and should not be expected to suffer a possible \$1500-\$2000 in additional losses before present conditions are rectified next spring. If neither ASCIT, the Institute, nor the Pasadena Police make an attempt to prevent this loss, it is certain that some, or all of the students involved will do so.

Sam R. Suitt



This airplane is actually a flying classroom. The course taught in it is Air Navigation, under real conditions. The students are young men who have been selected as possible future leaders of the Aerospace Team. Graduation after 32 weeks of training will win each of the students the honored silver wings of an Air Force Navigator and an Officer's Commission.

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Varsity Second, Frosh Third In Conference Harrier Meet

Occidental didn't scare very easily Saturday as they took their nth SCIAC cross-country championship with a 21-point (2nd, 3rd, 4th, 5th, and 7th) team total, leaving Caltech (the only other team to place more than one runner in the top ten) a strong but distant second at 79 points. Remaining team scores were Whittier, 88; CHM, 89; Pomona, 111; and Redlands, 132.

Claremont's Ed Laughton, winner in 23:03 of a tough race over four miles of hilly Whittier countryside, was the only non-

Oxy runner to beat Pat Earley, who took sixth place for Tech in 23:57. This was identical to Dick Tuft's finish in the 1959 conference meet.

Also scoring for Tech were Richard Harris, 10th in 24:28; Marshall Johnson, 17th; Art McGarr, 21st; and Bill Giaque, 25th, in a field of 38 runners

In the freshman race of the same day Tech belied their 2-2 dual meet record by taking third place behind Oxy and Whittier over the three-mile course. Newly elected team captain Larry

Weaver showed he was not to be satisfied with the second spot on the team as he led Tech scoring with an eighth place in 19:01. Also scoring were Ed Lee, 13th, in 19:24; Bob Sorensen, 16th, in 19:34; Harold Nathan, 20th, in 19:57; and Jacques Calma, 24th, in 20:15, for a total time spread of only 74 seconds.

Team scores in the frosh meet were Oxy, 34; Whittier, 60; Caltech, 72; Pomona, 81; CHM, 83; and Redlands, forfeit due to incomplete team.

(Continued on page 4)

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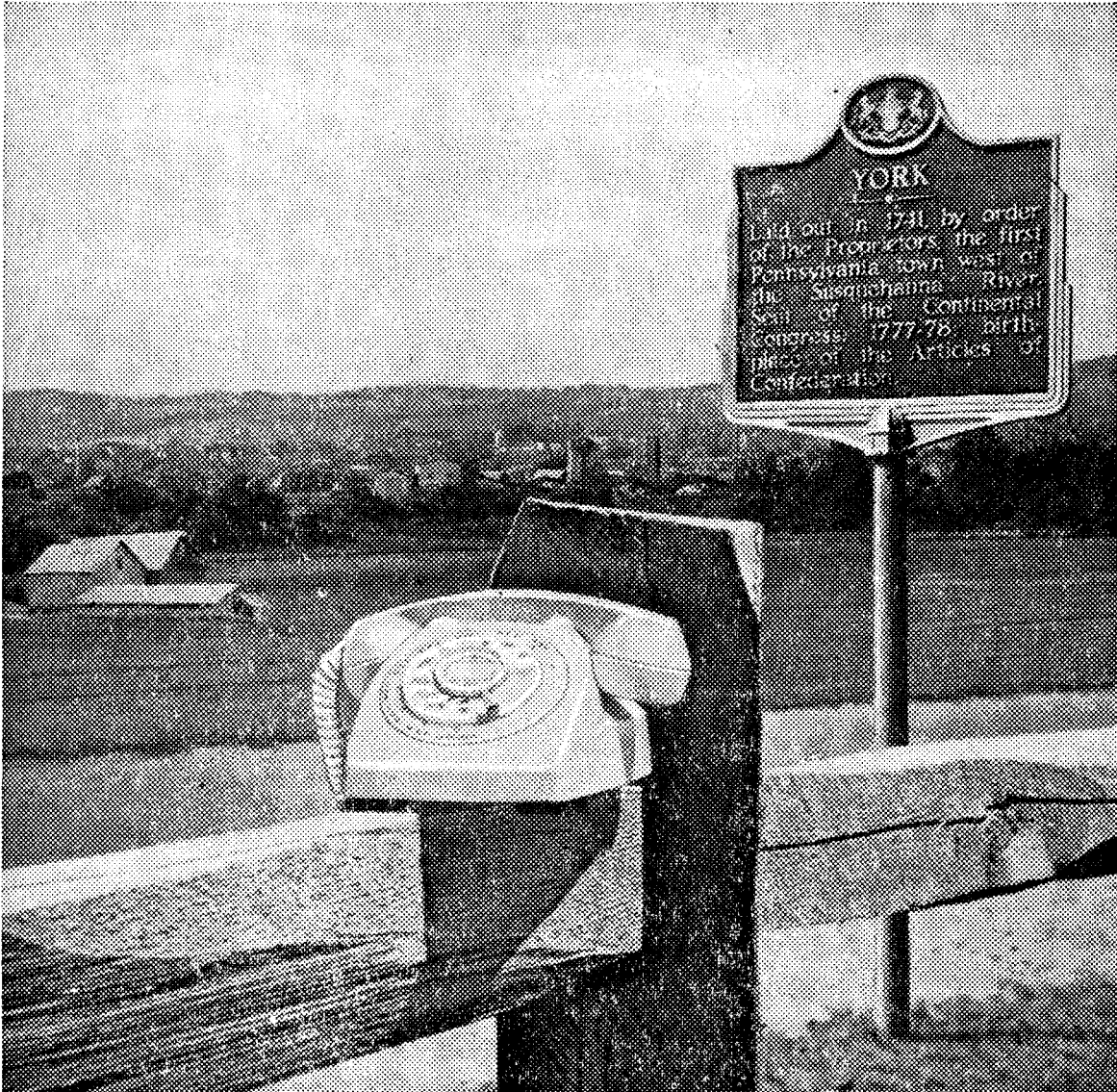
Mr. James M. Benning, Room 129
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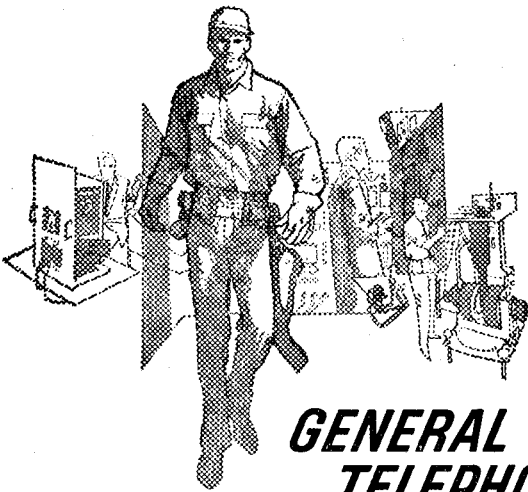
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Published weekly during the school year by the Associated Students of the California Institute of Technology, Incorporated.
The California Tech, 1201 East California Blvd., Pasadena, California.
Member of The Associated Collegiate Press
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On Campus with **Max Shulman**

(Author of "I Was a Teen-age Dwarf", "The Many Loves of Dobie Gillis", etc.)

DECK THE HALLS

The time has come to make out our Christmas shopping lists, for Christmas will be upon us quicker than you can say Jack Robinson. (Have you ever wondered, incidentally, about the origin of this interesting phrase "Quicker than you can say Jack Robinson"? Well sir, the original phrase was French—*"Plus vite que de dire Jacques Robespierre."* Jack Robinson is, as everyone knows, an anglicization of Jacques Robespierre who was, as everyone knows, the famous figure from the French Revolution who, as everyone knows, got murdered in his bath by Danton, Murat, Caligula, and Aaron Burr.

(The reason people started saying "Quicker than you can say Jacques Robespierre (or Jack Robinson as he is called in English-speaking countries)" is quite an interesting little story. It seems that Robespierre's wife, Georges Sand, got word of the plot to murder her husband in his bath. All she had to do to save his life was call his name and warn him. But, alas, quicker than she could say Jacques Robespierre, she received a telegram from her old friend Frederic Chopin who was down in Majorca setting lyrics to his immortal "Warsaw Concerto." Chopin said he needed Georges Sand's help desperately because he could not find a rhyme for "Warsaw." Naturally, Georges Sand could not refuse such an urgent request.

(Well sir, Georges Sand went traipsing off to Majorca, but before she left she told her little daughter Walter that some bad men were coming to murder daddy in his bath, and she instructed Walter to shout Robespierre's name when the bad men arrived. But Walter, alas, had been sea-bathing that morning on the Riviera, and she had come home loaded with sea shells and salt water taffy, and when the bad men came to murder Robespierre, Walter, alas, was chewing a big wad of salt water taffy and could not get her mouth open in time to shout a warning. Robespierre, alas, was murdered quicker than you could shout Jacques Robespierre (or Jack Robinson as he is called in the English-speaking countries).

(There is, I am pleased to report, one small note of cheer in this grisly tale. When Georges Sand got to Majorca where Chopin was setting lyrics to his immortal "Warsaw Concerto," she was happily able to help him find a rhyme for "Warsaw," as everyone knows who has heard those haunting lyrics:

*In the fair town of Warsaw,
Which Napoleon's horse saw,
Singing cockles and mussels, alive alive o!)*



But I digress.

We were speaking of Christmas gifts. What we all strive to do at Christmas is, of course, to find unusual, offbeat, different gifts for our friends. May I suggest then a carton of Marlboro Cigarettes?

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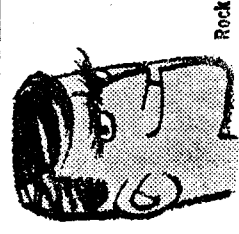
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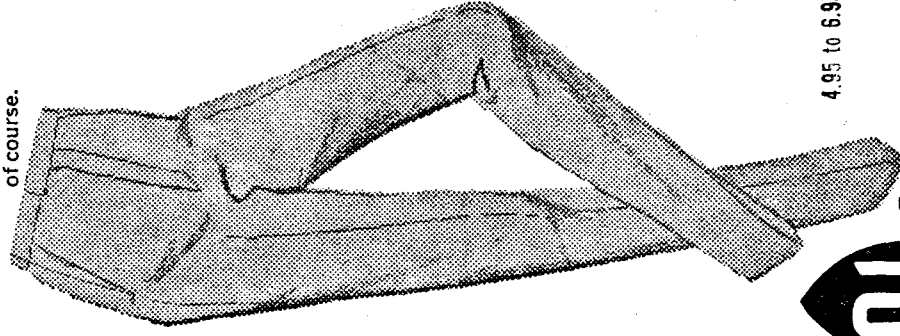
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Earley Leads Tech Harriers To Second

The varsity recovered nicely covering but surpassing Dick Tuft's efforts of 1959. Pat's record has been one of constant improvement and should form a meet season.