

Powerful quake rips California

EL CENTRO, Calif. (UPI) — A powerful earthquake followed by hundreds of aftershocks shook southern California and northern Mexico yesterday, causing widespread damage and injuries to scores of residents.

There was an unconfirmed report of one death.

The worst damage was reported in Calexico and El Centro near the Mexican border, 100 miles inland from the Pacific Coast.

Communications were cut off from the Imperial Valley towns, but University of California seismologists in Berkeley said there was an unofficial report of one person killed in El Centro.

More than 40 people were hospitalized in El Centro, a farm community, within 30 minutes after the quake struck at 4:18 p.m. PDT (7:18 p.m.).

The California Institute of Technology at Pasadena said the quake measured 6.4 on the open-ended Richter scale. The Berkeley scientists said it measured 6.5 to 7 with seven aftershocks — all of lesser intensity.

The major quake activity was followed by swarms of further aftershocks numbering in the hundreds, seismologists said.

Power lines were knocked down and water mains were snapped in the disaster area, and the Berkeley seismologists said there were fires in the two communities.

Witnesses said from the scene in El Centro that glass from broken windows littered the streets. The city's five-story county Social Services Building suffered major pylon damage, and the entire structure sank three to four feet.

Porches on older wooden houses in El Centro were partially collapsed.

Renee Berkner in El Centro said, "In my home there were lamps falling, things tipping off shelves and I've got four feet of dirt from plants scattered."

"Outside, the water canal is caved in, so the streets are flooding. There are roads caved in, windows downtown are shattered and there are car wrecks all over."

Fred Vaughn, a spokesman for the San Diego Gas and Electric Co., said he talked to an employee in El Centro who reported, "The top floor of the county administration building is sagging."

Vaughn said he had reports of utility lines down and that the quake caused "half of the water in a swimming pool to jump right out."

At the damaged courthouse in the county seat community, a judge "brought the participants outside the building to continue the proceedings," Vaughn said.

In Mexicali, Mexico, just across the border from Calexico, there were reports that gas lines were ruptured and dozens of persons were injured by falling debris from old buildings.

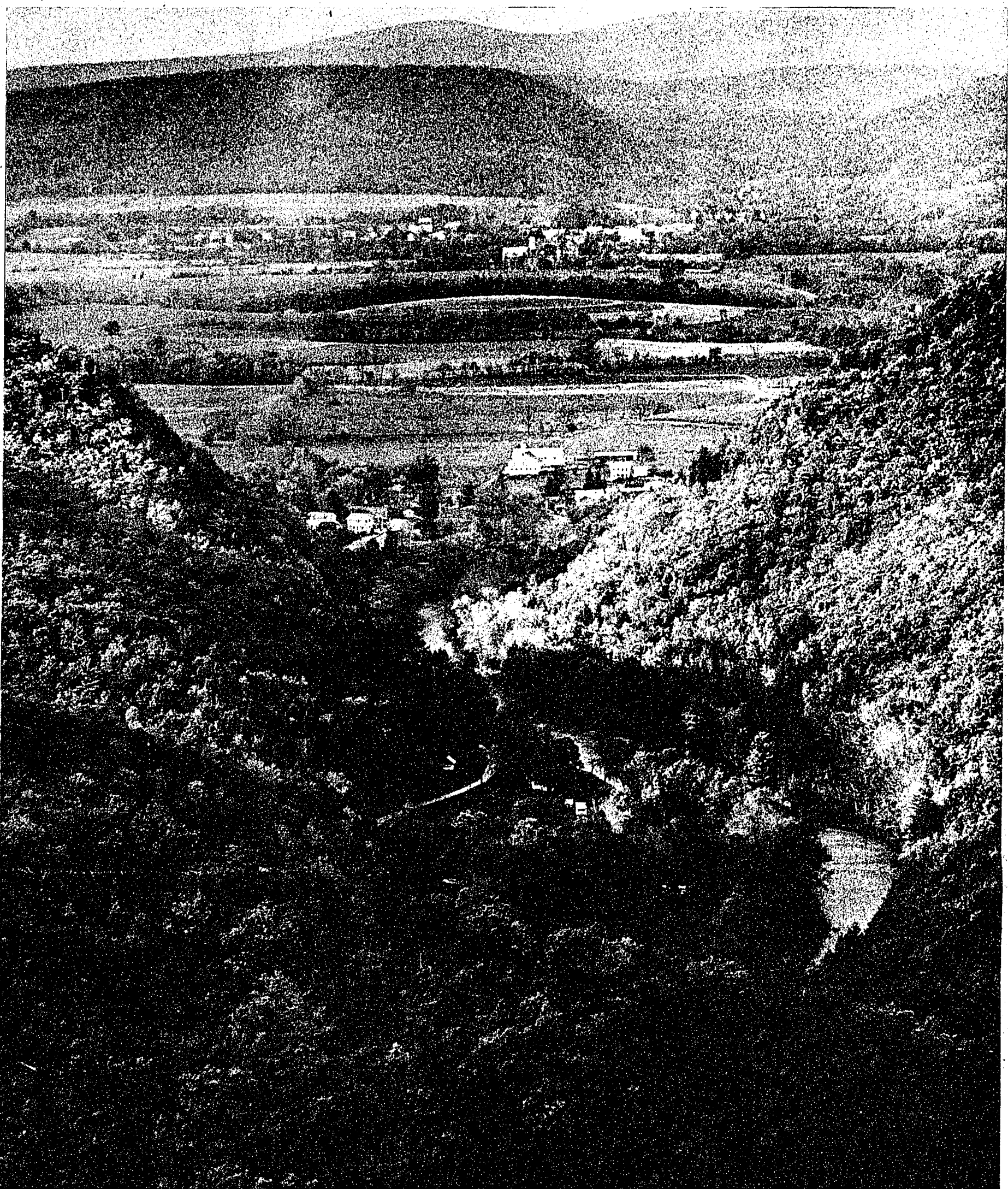
The quake and aftershocks were felt in Phoenix, Ariz., 200 miles to the east of the epicenter, and Las Vegas. Highrise buildings in Los Angeles and San Diego, more than 100 miles from the epicenter, swayed.

A man in the 50-story Arco Tower in downtown Los Angeles said, "We're rocking like crazy up here." But there were no reports of damage in the metropolitan area.

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Down in the valley

The sleepy town of Coburn rests snugly in the gap cut through First Mountain by Penn's Creek, flowing from Penn's Valley in the distance. Fall foliage is beautiful from vantage points like this one called Penn's View.

Photo by Chip Connolly

Student financial aid rises, director says

By CHERYL BRUNO
Daily Collegian Staff Writer

An estimated \$65.53 million in financial aid will be given this year to students enrolled at the University, said John F. Brugel, director of the Office of Student Aid.

This is an estimated increase of \$21 million over the \$43.94 million that was given last year through 44,286 awards. Approximately 60,400 awards are to be given this year, Brugel said.

The six major financial programs serving University students are the Pennsylvania Higher Education Assistance Agency (PHEAA), the Basic Educational Opportunity Act (BEOG), the Guaranteed Student Loan (GSL), the National Direct Student Loan (NDSL), the Supplemental Educational Opportunity Grant (SEOG), and the College Work Study Program (CWSP).

Brugel said the increase in the amount of aid given this year can be attributed to the Middle Income Assistance Act which was passed by Congress last November. This act directly affects student access to the federally funded BEOG and GSL. By its provisions, the eligibility requirements for these two forms of assistance were liberalized, allowing middle income families, who had previously been denied, access to the programs.

The same act also removed income stipulations so any student can now borrow money for allowable education expenses, interest-free. Formerly, only students whose parents' adjusted in-

come was less than \$25,000 were eligible to receive interest-free loans.

While the BEOG and the GSL are responsible for \$17 million of the \$21 million estimated increase in financial aid awards, the SEOG and CWSP also show an increase of \$4 million in aid to students.

Through these two programs, money allocated to the University from the Office of Education in Washington, D.C., is awarded to students chosen by the University based on their financial aid.

Every year the University must file an application for these funds. The increase in aid money available this year is related to the Office of Education's new national standardized approach of analyzing an institution's needs by the number of the student population and relative income distribution of the students. The former system relied more heavily on an institution's estimate of its own need.

Brugel said there is a 40 percent increase over last year in the volume of student aid applications received and a 33 percent increase in the number of students seeking federal aid assistance through the University.

Students interested in applying for financial aid can pick an application in the Office of Student Aid in Boucke Building. The office is responsible for awarding assistance to students who show the most need.

"All students at Penn State who have demonstrated need, by filling out a need analysis document, have been offered assistance," Brugel said.

Americans win science Nobels take chemistry, physics prizes

STOCKHOLM, Sweden (AP) — Two Americans and a Pakistani, who took up where Einstein left off in searching for a key to the universe, won the Nobel Prize in physics yesterday, and an American and West German who found ways to produce new drugs, pesticides and other important organic compounds were awarded the chemistry prize.

It made 1979 another year of U.S. domination of the three Nobel science prizes. Four of the seven laureates are Americans, the same proportion as in 1978.

But the happiest winner may have been chemistry laureate Georg Wittig, an 82-year-old retired professor at West Germany's Heidelberg University.

"When the phone call came from Stockholm the Herr Professor did not want to believe it at first," his housekeeper told a reporter. "He once hoped for the prize many years ago but had given it up long ago."

The physics winners were two Harvard professors, Sheldon L. Glashow and Steven Weinberg, both 46-year-old New York City natives, and Professor Abdus Salam, 53, a physicist working in Britain and Italy who is the first Pakistani to win a Nobel.

Wittig's co-winner in chemistry was Professor Herbert C. Brown, 67, a London-born U.S. citizen teaching at Indiana's Purdue University.

The selections were made by the Swedish Royal Academy of Science. Each prize carries a stipend of \$190,000 to be shared among its winners.

The three physicists were honored for highly theoretical work on a fundamental aspect of science — the forces that hold matter together.

They have sought to find out "what makes the world tick," Weinberg told a reporter yesterday in Massachusetts.

"The particles of nature are held together by four different forces, of which one is gravity," Glashow explained. "The other three are weak, strong and electromagnetic." He said the prize-winning research was aimed at demonstrating that electromagnetic forces and "weak interaction" forces within the atom's nucleus are unified.

Glashow said he believes that a single force underlies all three, and that they are simply three ways in which it is manifested.

Salam and Weinberg published papers in 1967 postulating the electromagnetic-weak interaction link.

These findings were a "real breakthrough," bringing nearer the prospect of a unified theory of physics, said Dr. Christopher Isham, a colleague of Salam's at London's Imperial College of Sciences and Technology. It represented the first unification of two basic natural forces since electricity and magnetism were shown to be connected more than a century ago, he said.

Isham said the theory would help scientists understand the astrophysics of stars and how the universe originated.

"Einstein spent the last 20 years of his life trying to do what Professor Salam has done, without any success. It is a great achievement," Isham said.

Brown and Wittig, the chemistry winners, were recognized for pioneering work in developing boron-and-phosphorous-based compounds as reagents — chemical tools — for the synthesis of complex organic compounds. Such complex compounds have many applications, from medicine to pesticides.

"Organoboranes," the Brown-developed boron reagents, have been used, for example, in finding a non-polluting method for bleaching paper.

Wittig's phosphorous-based reagents have, among other things, facilitated production of vitamins and helped combat malaria mosquitoes and other pests by making it possible to synthesize new kinds of pesticides to which they have not developed resistance.

Since the Nobel Prizes were established in 1901, Americans have comprised about 40 percent of the laureates, and in recent years the proportion has been higher.

The economics prize is to be announced today, and the literature and peace prizes later this week and next week. President Carter has been nominated for the peace prize for his mediation of the Camp David accords between Israel and Egypt.

First-come, first-served system advocated by ARHS president

By LORRAINE CAPRA
Daily Collegian Staff Writer

The Association of Residence Hall Students is no longer considering a lottery system to allot dorm contracts, ARHS President Steve Osborn told the USG Senate last night.

"We're advocating a modified first-come, first-served system where students would turn in their contracts and deposits to Shields in January or February," Osborn said.

The University would then know how many spaces to allot and could provide enough areas for students to turn in their receipts, Osborn said.

"The lines were so long last year because Bursar's can only accept money from three areas," he said. "With our plan, students turn in their money to Shields so we might be able to set up 10 areas."

No student now living in a dorm will be assigned to temporary housing, Osborn said.

He also said that 60 percent of the students who answered a dorm assignment survey said they favored a first-come, first-served system.

Branch campuses make the University's housing problem different from other universities, Osborn said.

"Other campuses don't have 10,000 people coming in from branch campuses," he said.

The senators gave their support to ARHS's tentative plan.

Rep. Gregg Cunningham, R-Centre, asked the senators to help him recruit students to intern in the executive and judiciary branches of the state government.

"They wouldn't have to be political science majors," Cunningham said. "For example, we're trying to pull in people who are in hard science and economics majors," he said.

Cunningham said most state legislators think University students are only concerned with decriminalization of marijuana and lowering the drinking age.

But, he said because he has lived in State College, he knows that students are concerned with other issues.

He also said he wished he had been consulted on the University's decision to increase tuition for next year.

"Had I been asked before the fact, I probably would have counseled against it," Cunningham said.

He urged the senators to attend his town meetings on campus every week.

In other business, Jim Morrison, director of USG Department of Political Affairs, said 40 percent of the students who answered a marijuana decriminalization survey said they currently use marijuana.

"That means that 40 percent could be called criminals by the laws of the state," Morrison said.

Morrison announced that he is resigning his post, but did not give a reason. Vic Dupuis, a USG vice presidential candidate last spring, will take over Morrison's duties.

The Campus Loop ad hoc committee said the University said USG's Loop survey cannot compare this year's ridership with last year's because it did not look at weather conditions.

The University said ridership in-

creases when it rains, Centre Halls senator Allison David said.

She said she called the University Weather Tower and was told that it rained twice as much this year as last year.

"Therefore, the Loop decrease in ridership can be attributed only to fare increase and in no way to better weather conditions because the weather so far this fall is worse than the weather of last year," David said.

The athletic ad hoc committee will conduct a student survey on seating at Beaver Stadium, West Halls senator Fawn Coleman said.

"This survey more than the Loop concerns students," South Halls senator Merle Baseman said. "We want comments, more than just answers to a survey and I think this is the best way to do it."

Pollock-Nittany senator Joe Healey said his rape prevention ad hoc committee will hold an open meeting tonight to get student input for a map detailing areas that need more lighting.

"We will hand out a form and ask students to put an 'X' where they live and draw a line to the most frequently traveled places to their homes," Healey said.

Welcome warmth

Partly sunny and mild today with a high of 63. Mostly cloudy tonight and tomorrow with the chance for a shower by tomorrow evening. The low tonight will be 46 and the high tomorrow will reach 64.