



UNIVERSITY CONTRIBUTES TO NATION'S PREPAREDNESS in case of war by sponsoring a bomb-shelter seminar. Professor Allen Dill, co-chairman of the seminar, discusses a structural design problem with one of the men attending the seminar.

Lab Measures Wave Changes From Satellite

The Ionosphere Research Lab is hitching a free ride on the Navy's Transit 4-A satellite which went into orbit June 28, Dr. William J. Ross, associate professor of electrical engineering, said.

Ross said that although the satellite is primarily a navigational instrument, the Ionosphere Lab is making free use of its signals to further studies of the earth's atmosphere.

"The Ionosphere Lab has been studying the physics and chemistry of the high atmosphere for the past 13 years and the new satellite method simply enables another piece to be fitted into place in the picture" Ross said.

USING THE SATELLITE, Ross and his associates are studying the electron content of the ionosphere by measuring the changes in radio waves from the time they leave the sending station in the satellite until they are received on the ground.

Electrons in the ionosphere cause the changes in radio waves and the greater the number of electrons, the more the waves are affected.

A ground receiving station on this campus and one to be established on the equator at Huanacayo, Peru, will be used in the program.

THE TRANSIT SATELLITE is also being used to study scintillation of radio waves caused by irregularities in the ionosphere. This is the tendency of radio waves to "twinkle" in the same way that stars do. This effect is particularly pronounced at Northern latitudes and is related to the aurora borealis, or northern lights.

DuPont Gives Unique 'Scope To University

A Cintel scanning microscope valued at \$27,000 has been presented to the department of chemistry by E. I. du Pont de Nemours & Co., Wilmington, Del., for instructional use.

"The microscope, also known as a flying spot resolver, will be of great value to students in chemical microscopy," said Dr. Mary Willard, professor of chemistry.

She said that the microscope counts particles electronically, thus insuring greater speed and accuracy in research.

AT PRESENT there are only three such microscopes in operation in the United States. The others are at the Monsanto Chemical Company, and the Oak Ridge National Laboratories.

Arrangements for the du Pont gift were made through Robert G. Scott, an alumnus now employed in the Light and Electron Microscopy section of du Pont's Experiment Station, and Dr. Willard. The gift was authorized by T. L. Twilley, control manager of du Pont's Central Research Dept. in Wilmington.

THE MICROSCOPE is a new type of electronic microscope developed by Rank Cintel, Ltd., London, England; it provides automatic means of counting and sizing all kinds of particles.

John H. Graham, of Doylestown, a candidate for a master of science degree in chemistry, will operate the microscope during the coming academic year.

One of the first acquisitions for the PSU library was a book entitled, The Fruit Grower's Handbook.

Dutch Student Says U.S. Wastes Wood

A Netherlands student studying forestry here was "amazed" at the wastefulness of wood in this country.

In the Netherlands, a country about the size of Pennsylvania, there are 10 times as many people and the forests are not as numerous. The conservation of trees is carefully

practiced there, Jacob M. Remeijn, graduate student, in forestry from the Netherlands, said.

Remeijn was also surprised at the variety of species of trees here—over 100 major species in this area alone compared to 25 varieties of commercial value in his country.

REMEIJN IS STUDYING here as part of his requirement for practical experience in forestry to earn his master's degree. He will complete his work at the Netherlands Agricultural University when he returns to his country in September.

A new method of preparing trees for pulp wood cutting called "chemical debarking" is one of the practical experiments he is participating in.

In this process, he explained, a "frill" is cut around the base of the tree and a special poison applied. The poison, over a period of a year, loosens the bark, seasons the tree and dehydrates it, he said. The dry, debarked wood is easier to truck and quicker to process, he said.

THE DUTCH, though limited in variety and abundance of trees, have a well-developed program on the science of forest genetics and have developed many superior tree strains, he said.

Remeijn has also worked at the University's 6600 acre Stone Valley experimental forest in projects with the woodcutting crews.

He has been working at the Forestry Summer Camp at Mt. Alto for the past month and returned to the campus Monday to continue his studies with Dr. Peter W. Fletcher, director of the school of forestry.

ACL Council Elects Krauss

Dr. Franklin B. Krauss, head of the department of Romance languages, has been elected to the Council of the American Classical League for a six-year term.

Students Give Band Concert

The summer band school will present music by Mozart, Handel, Purcell, Gabrieli and other composers at 8:30 tonight in Schwab.

The 70 students attending the non-credit summer music training course will present three more concerts in the next week.

The orchestra will give a concert at 8:30 p.m. Tuesday in Schwab.

The last concert to be given by the summer term music school is scheduled for 8:30 p.m. Thursday in Schwab.

The participants in the concerts are high school students attending a 5-week program of professional training in music. The summer music school sponsored by the Music Department offers chorus, band, and orchestral besides private lessons on an instrument of their choice.

Penn State was first called the Farmers' High School because its founders thought "college" connotated a place where boys contracted idle habits.

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AVAILABLE SEPTEMBER—very attractive room for woman graduate student. Conveniently located. Breakfast privilege. Free parking. Phone AD 7-3033.

FURNISHED APARTMENT for one or two students. Summer and/or fall rental, two blocks west of campus. Free parking. Call AD 8-1409.

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SIX-ROOM HOUSE, remodeled; large lawn, big trees. Call HO 6-6218.

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MODERN FURNISHED efficiency apartment. Open September. "Close-in." Parking. Own thermostat. Call AD 7-7792 or AD 7-4850.

WANTED

NEEDED DESPERATELY—Ride to State College from Allentown on Friday, July 28th; return Sunday. Call Jan—immediately at UN 5-2728.

MISCELLANEOUS

STUDENT WILL DO typing in campus office or at home for the rest of the summer. Call AD 8-8398.

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Boro Parking--

(Continued from page one) membership is \$2 per square foot in the front of business places per year for 6 years.

In the discussion on the free night parking meters one merchant suggested that the Chamber of Commerce try to get the free parking experiment extended.

THE DOWNTOWN merchants face the problems of a new shopping center opening outside of town with all free parking facilities, 20 to 50 per cent higher tax assessments on property owners in the downtown area and the absence of University students during the Christmas season.

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