President Snyder consults President of India Prasad at New Delhi during his trip to Asia and on around the world.

President’s Message

THE year was one of significant achievement and even greater expectations, thanks to strong backing by the Governor, the Legislature, the Congress, our congressional delegation, government agencies, private enterprise, and public-spirited individuals. In addition to the Legislature’s strong backing of the University’s basic budget the following support is gratefully acknowledged.

- Alertness of our congressional delegation to our financial needs as a land-grant college in absence of a land grant. This eventuated in a bill appropriating $22,350,000.
- Release by Governor Quinn of funds for preliminary East-West Center planning.
- Appropriation by the Legislature of funds for the Asian Studies and Overseas Operation Programs and for the first increment of Gateway House.
- Passage by Congress of the East-West Center bill, the financing of which was yet to be determined at the time of this report.
- Provision by the National Institutes of Health of a quarter of a million dollars toward a Health Research Center.
- Provision by the National Science Foundation of $300,000 toward the establishment of an enlarged Geophysics Institute.

Ut in expectation of the passage by Congress of $3,000,000 for this purpose next session.

- Subscription of $1,000 each by 106 local businesses and individuals toward the 1956 East-West Philosophers’ Conference.
- Gift of a Manic Auditorium by Dr. and Mrs. Arthur E. Orris.
- Devotion of innumerable faculty members to long and frequent meetings of committees on University affairs.

Wine administration of these and countless other gifts, grants and appropriations has been the subject of a constant succession of meetings, many of them under pressure of time limitations and heavy working schedules, of committees composed of faculty and staff—a corps of dedicated men and women whose vision of the University’s potentialities is tempered by practical considerations. These deliberations have been conducted in a climate of intellectual excitement at the prospect of fulfillment of many a long-cherished dream—a truly inspiring atmosphere that has permeated the University and made the year a most gratifying one.

I will have the honor of presiding next summer over the Tenth Pacific Science Congress in which the University will be host. The Congress will be sponsored by the Bishop Museum and the National Academy of Sciences of Washington, D.C.

In planning for new and expanded activities, the planners have never lost sight of our fundamental obligation to the burgeoning youth of the State—to provide them with an education of increasingly high quality. This we are able to do. Our steady growth and the faculty, an average richly endowed, has attracted numerous research contracts and special grants. These, in turn, have attracted outstanding scholars. And, since research and teaching go hand in hand, a self-generating upward spiral of teaching ability has been set in motion. By the end of the year, the University’s strengths at home and abroad have been substantially strengthened.

Quo Vadis?

WHAT are the University responsibilities today? How can the institution best meet the demands of the Space Age?

To answer these basic questions President Snyder appointed a Study and Development Commission at long and regularly scheduled meetings led by its elected chairman, Provost Wilson, this high-level group has for the past year discussed exhaustively the self-studies submitted by every functional and operational division of the University.

This is the first time in the history of the University that a protracted and detailed study has been made of the institution as a whole, together with the interrelated components and their function as an integral activity of the State of Hawaii.

The Commission will file its report with the President early in 1961.

BUSY SUMMER SEASON

EARY, 8,000 students attended Summer Session, an increased enrollment of 1,000 over last year. Some 2,000 came from the Mainland and 59 from sign countries. Forty-two percent of the attending students were resident of Asia were attended by over 1,300 visitors. About 3,500 took electives courses, 560 foreign language courses, 226 science, and 460 mathematics. The 30,000 credits offered, 29,000 were in solid standard courses offered in accredited universities throughout the country. Less than 100 credits were offered in the "liquid" courses, dances of Hawaii, swimming, and surfing, all of them part of the physical education and recreational leadership curriculum preparatory to settlement, public park, and YMCA and YWCA work. Of a total faculty of 278, 226 were resident and 52 were visiting professors.

Other important summer activities included the Second International Conference on General Semantics, of which Dr. S. I. Hayakawa was program chairman, a Summer Institute for Asian Studies directed by Dr. John A. White, a 40-day Study Tour to the Orient conducted by Professor Barbara B. Smith, a Workshop in Aviation Education in which Dr. Edward Teller participated, a Summer Institute for Science and Mathematics Teachers supported by the National Science Foundation, a Summer Institute in Radiation Biology for High School and College Teachers financed by the Atomic Energy Commission, and a Symposium on Current Theory and Research in Education attended by eminent authorities.

We shared some of our outstanding guests with the general public by sponsoring free lectures on successive Tuesdays, as well as a special lecture by Dr. Teller.

Annual Report
University of Hawaii
September 1, 1959, to August 31, 1960

University of Hawaii Bulletin
Volume XL December 1960 Number 1

The University of Hawaii Bulletin is published quarterly by the University of Hawaii, Honolulu, Hawaii, U.S.A. Entered as second-class matter at the Post Office at Honolulu, Hawaii, November 14, 1921, under Act of Congress of August 24, 1912.
Among the Seven Colleges

Engineering enrollments increased 3.5 per cent in contrast with a national decrease of 5.4 per cent. It is planned to round out our engineering offering by adding mechanical engineering in the fall of 1960. Plans are being considered for offering chemical engineering; also for extending civil engineering to the graduate level. Meanwhile, completion of Keller Hall has permitted the old Engineering Quadrangle to be converted from classrooms to an electrical engineering laboratory.

Enrollments in Tropical Agriculture have increased 13 per cent. In home economics a curriculum in clothing design is contemplated to keep pace with Hawaii's expanding garment industry.

Arts and Sciences has graduated its first bachelor of science in meteorology. Asian studies are attracting many students. The college now offers the master's degree in music—voice, piano, orchestra, and band.

General Studies offered education courses for the first time on Molokai, and continued them on Hawaii, Maui, Kauai, and Oahu, where instruction was offered at Hickam, Shafter, Schofield, Tripler, and Kaneohe.

Enrollments in accelerated credit courses skyrocketed 42.2 per cent. Interest was strong in science, mathematics, engineering, and real estate, especially cooperatives. There were "faint stirrings" in demand for languages.

During the first year of its existence, the College of Nursing enrolled 129 students in nursing and 91 in medical technology. The total enrollment of 230 is an increase of 21 over the previous year. Twice as many fully qualified students as can be accepted have applied for admission in the fall. The limiting factor is insufficient clinical practice facilities.

Michael T. Wermel, already well known in local business circles, came from the California Institute of Technology to take over the Business Administration deanship. His interest lies in insurance, real estate, hotel management, retailing, and other areas of rapid development in the state, and in a broader education for all. Community advisory committees are already actively working with Dean Wermel.

Enrollments in the College of Education continued to increase, totalling more than 1,500. In addition there were 60 master's degree candidates, and 200 liberal arts graduates seeking professional certificates. This last program was enlarged to include prospective high school as well as elementary school teachers. A new program for teaching the mentally retarded was introduced; participation continued in the contract with the Thai government to upgrade their vocational schools and retrain their headmasters and shop teachers; the Ford Foundation awarded the College a $371,000 research grant.

In the Graduate School, candidates for advanced degrees are up 24 per cent—from 296 in 1958-9 to 366 in 1959-60. Unclassified students in the school have increased from 1,150 to 1,317 over the same period. Three doctorates and 81 master's degrees were granted.

At the Library

Acquisition of 10,000 additional books has put the bound-volume collection over the 300,000 mark. Addition of 100 new periodicals brings total subscriptions up to 1,700. As a result of a further contribution by the Samuel N. and Mary Castle Foundation to the special collection of paper-bound classics to encourage student reading, this collection now stands at 600 volumes. Busy librarians answered more than 15,000 inquiries during the year. The outstanding Oriental Collection is expanding in response to East-West Center needs.

Thither and Yon

The faculty, exclusive of Civil Service employees and those devoted wholly to research, numbered 554.

Highlights on the Hilo Campus included utilization of the eruptions at Kilauea Iki and Kapoho as very active laboratories of teaching. A scientific survey was made among the evacuees of the tsunami disaster at Hilo... Students and faculty participated in mapping-up operations following the tidal wave. The Hilo Campus was co-host to the Afro-Asian Student Leadership Seminar held by the Pacific Basin Information Service in the Hilo Campus Library, following which they and other notables from the Big Island and Oahu attended the dedication of an athletic field.

The Waikiki Aquarium featured the opening of a new $500,000 tank and its six satellites... The Air Force ROTC drill team won second place in competition with universities in the western area, while Cadet Thomas T. Tamura was cited by the commandant at summer training at Maxwell Air Force Base, Alabama, for having achieved a perfect grade point of 3.0... The Army ROTC placed third (over the years it has never been ranked lower than third place) among 31 other western universities and colleges at summer camp at Fort Lewis. The rating is based on academic standing and leadership.

A total of 2,876 employers asked for student help; 2,200 students requested part-time employment or counseling related to it; 1,705 placements were made... 1,127 landlords filed listings, but many of them were too expensive or remote from the campus; 690 students applied for off-campus housing or advice on it; 256 placements were made... On-campus housing was provided for 279 students... Approximately 700 veterans enrolled in the University received assistance from their advisor... More than 15,700 visits were paid to the Student Health Service; 440 polio immunizations were administered; 4,000 students, faculty, and staff were screened for tuberculosis; all ROTC cadets and College of Nursing students were immunized against diphtheria, typhoid, and tetanus. The Service is cooperating with the Hawaii Heart Association and the U.S. Public Health Service on a 5-year rheumatic fever study... The Bureau of Testing and Guidance made 7,963 contacts with students... The Bureau of Student Activities supervised 1,510 events in Hemenway Hall attended by 58,962 students, faculty, alumni, and others... The Committee on Scholarships reports that the demand for scholarships for entering freshmen is still largely unmet.

The Office of Publications and Information processed 200 publications, issued 500 news stories in multiple copies, initiated many more, and participated in innumerable public relations projects.

In addition to issuing its quarterly journals on philosophy and Pacific science and volumes on Hawaii's insects and fishes, the University Press published a biography of Gerrit P. Judd written by his great-grandson, and selections in both English and Hawaiian of Fornander's Hawaiian Antiquities and Folk-Lore.

An IBM 650 computer, installed in air-conditioned quarters in the Data Processing and Statistical Center, in the basement of Keller Hall, will provide tremendous impetus to research at the University... The University Speakers' Bureau made engagements for 151 faculty members, eight of them on neighbor islands... Requests for reduction in teaching for the purpose of conducting research increased by nearly 35 per cent.
A new angle momentarily baffles top-scoring basketball player as the deteriorating 32-year-old gymnasium is dismantled.

Gleefully and without regret, President Snyder and staff members lead a procession from the weathered music shack to the sparkling new quarters.

Classes began in fall, 1959, in the four units of the Music Complex, the rooms of which are suspended from girders to reduce sound transmission.
The Physical Science Building, joined by passageways to all four floors of Keller Hall, was rushed to ease registration pressure in the fall of 1960.

Completion of a track and football practice field on the Lower Campus in Moiliili made Cooke Field available as a building area.

Engineering building honoring Dean Emeritus Arthur R. Keller was completed just in time to accommodate first-semester students in 1959.

Swelling ranks of two-legged campus inhabitants drove the four-legged creatures across the Pali to new animal husbandry quarters at Waialee.

A loan from the Housing and Home Financing Agency made it possible to break ground for faculty apartments across Manoa Stream from Frear Hall.

Paint was scarcely dry on the walls of Unit B of Johnson Hall when male students moved in in the fall of 1960.
Undergraduate research colleague studies the effect of sea water on lava rock with chemistry professor.

One of the 24 Thai vocational teachers to study American techniques before returning to supervise seventeen technical schools set up by the University under a three-year contract.

Educators from the Philippines and Sierra Leone discuss mutual problems at seminar for foreign education administrators.

Your University
Serves the State and the Nation

Tyros and Typhoons

WEATHER-SCAPES from U.S. meteorological satellite Tyros I were analyzed by the new Department of Meteorology and Oceanography under a $28,000 contract with the Air Force Cambridge Research Center.

The University is conducting two other research programs under contracts with the Air Force Center: micro-meteorological research based on electronic computer techniques ($25,000), and special typhoon research ($35,000). Theoretical typhoon models are being developed under a $25,000 grant from the National Science Foundation.

The rapidly developing department is headed by New Zealand meteorologist Colin S. Ramirez, who came to the University four years ago from the Royal Observatory at Hong Kong. Four eight-week courses in advanced tropical meteorology are offered each year to regular students, government weather men, and meteorologists from Asia and the Pacific area.

The first six bachelor of science degrees in meteorology were awarded in June.

Our Natural and Human Resources

WHAT is the best possible use of the state's limited land resources? That is what the Land Study Bureau seeks to determine. Having completed classification of state lands, it concentrated on such complex problems as urban and industrial expansion at the expense of rural and agricultural interests. Income-producing opportunities were balanced against human factors—comfort, convenience, aesthetic satisfaction.

Educators from the Philippines and Sierra Leone discuss mutual problems at seminar for foreign education administrators.

In the final analysis, it's people that count—their interrelationships, their complicated and sometimes conflicting interests. To stimulate the study of people, the regents authorized a Social Science Research Institute in July 1959.

A survey conducted by the Institute revealed that during the year the 75 members of our social science departments were engaged in 96 research projects and completed or published 100 manuscripts, three of them books. Full realization of Hawaii's potential as a "Living Laboratory" of sociology awaits further financial backing.

Turning to another aspect of Hawaii's human resources, what impels people to do what they do? To provide answers to this question, a Psychological Research Center was established two years ago. It flourishes. Last year its financial support nearly doubled, its publications more than doubled, its active projects tripled, and six additional faculty members participated in its programs.

These dealt with delinquency, disaster, schizophrenia, tourist motivation, social attitudes, speech correction, vision, and education.

Cultural Events

THE campus continued to function as the focus of cultural activities. Townspeople as well as faculty and students attended concerts, reading hours, and art exhibits, and tourists flocked to the Pan-Pacific Spring Festival in Andrews Outdoor Theatre. As an experiment, the finals of the Ka Palapala Beauty Contest were held for the first time in the Waikiki Shell.

The first Edith Stern Hawaiian Music Lecture was delivered, and the World Affairs, Summer Session, and special lectures proved so popular that in the absence of an adequate auditorium those by Edward Teller, S. I. Hayakawa, and others were projected into two adjacent auditoriums by closed-circuit television.

A Great Plays Cycle was inaugurated with the production of Hamlet in the Waikiki Shell. The Cycle will present a series of eight classical plays, one each semester, so that the student will have an opportunity to become familiar with all eight examples of fine playwriting during his four-year college course. Instructors, knowing the production schedule in advance, will be enabled to gear their teaching accordingly.

Aid to Economic Prosperity

SMALL business failures, the economic effects of tax revisions, the financing of tourist facilities, and the susceptibility of our export industries to mainland recessions—these are among the important aspects of our economy that have been studied by the Economic Research Center, established by the 1959 Legislature.

Created to conduct long-range basic research and to evaluate the economic effects of legislation and national and international developments, the Center is financed by legislative appropriations and by grants from federal and local agencies.

Services to Legislature

THE First State Legislature called heavily upon the services of the Legislative Reference Bureau. The Bureau participated in five sessions—three special sessions, one session of the Senate alone, and the first regular budget session—as well as in committee work in the interim between sessions.

During each session the Bureau issued weekly cumulative indices of all measures introduced; also, a status table showing the progress of each measure. At the end of each session it issued a final index and status table, and a digest of all measures enacted into law.

In addition to its work of preparing reports and resolutions, drafting bills, and making legal and administrative analyses, the Bureau served as liaison with its counterparts throughout the nation and as a source of general information on state government.

The Bureau conducted research on such diverse subjects as the Capital Improvements Program, the Reorganization Act of 1959, and the Cost of Hospitalization of Indigents in Hawaii.

The Bureau responded to 400 formal and 1,700 casual requests. Like all other state agencies, it felt the impact of increased interest in Hawaii as a result of statehood. It will continue to feel the pressure engendered by the transition to statehood for some time to come.

4-H Student at New Delhi Fair

ONE of the outstanding honors accorded Hawaii this year was the selection of Kay Mihata, former 4-H member, to represent the United States with seven other 4-H students at the International Agricultural Fair in New Delhi, India. Kay had to stop her University studies for a year in order to attend the fair, but she feels that the experience she gained during her visit to India and the honor she brought to Hawaii justified this sacrifice.

The Agricultural Extension Service under which Kay received her training is entrusted with the task of educating people for action. It is engaged in direct-contact work with the farmers, homemakers, and young people throughout the State. Its long-range goal is a more prosperous agriculture; a more satisfying family life; a stronger, more mature youth; and a more efficient and satisfying development and use of natural and community resources. The immediate aim is to help people in problem solving and decision making.

During the year the Service arranged training programs for 118 foreign technicians, mostly from Asia.

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UNIVERSITY OF HAWAII ANNUAL REPORT, DECEMBER, 1960
Supplying Students from Model Housing

Students from all corners of the world unite in harmony.

Pineapple Pulp

O "Gateway House," state-financed structure which will supply housing and food facilities for local and foreign students.

Disaster Warnings

Sociologist Clarence E. Glick and board of regents chairman Philip E. Spalding talk with K. Srinivasan at seminar for foreign journalists.

Shark! Shark!

What attracts man-eating sharks to humans? The answer to this question is of vital importance to the world over.

University zoology professor Albert L. Tester is seeking an answer to this question with the assistance of a grant from the Office of Naval Research.

Dr. Tester conducted studies on shark behavior and sensory perceptions with a variety of live specimens both at the University's Hawaii Marine Laboratory and at the Eniwetok Marine Biological Station, which the University administers.

Dr. Tester's studies centered on the part played by the shark's vision, hearing, and sense of taste and smell in motivating his attack on his prey.

Experiments have indicated that some voracious species have a keen sense of vision but cannot distinguish color. It has been discovered that frightened fish give off a substance the odor of which attracts sharks. This has not proved to be true in the case of frightened humans.

There is reason to believe that odors thrown out by fish and humans thrashing in the water may be detected by cells in the skin of sharks that are sensitive to pressure.

Such findings lead to improved shark deterrents and to greater safety for swimmers and those cast adrift at sea.

Bauxite-mined Land Reclaimable

With the discovery of bauxite in Hawaii, reclamation of the mined land posed a problem. The Hawaii Agricultural Experiment Station conducted interdepartmental experiments to determine the extent to which stripmined land can be economically reclaimed.

The bauxite ore from approximately five acres of land in the Waialua Game Refuge Area, on the island of Kauai, was removed as would occur in bauxite mining. Top soil was returned and fertilizer requirements were tested.

It was found that the fertilizer requirements were high but not prohibitive. With proper fertilization, it was possible to produce yields nearly equal to or better than any others produced to date on the so-called cultivated lands on Kauai.

Tree crops grew exceptionally well, Norfolk Island pines having grown from seedlings to seven feet in two years, and fruit and nut crops did well.

Sugar cane and pineapple made better growth and produced greater yields than the commercial fields in the area. Soil erosion proved no problem.

It has been estimated that the Hawaiian Islands have 330 square miles of gibbsitic soils containing over a half-billion tons of free alumina.

Farmers' Unique Advantages Protected

The production of food and fiber by American farmers has become ever more efficient in recent years, requiring still greater knowledge of farm and marketing practices and higher investments per farm, according to Dr. Morton M. Rosenberg, Dean of the College of Tropical Agriculture and Director of the Hawaii Agricultural Experiment Station.

"Hawaii's farmers, who produce products that may be raised on the Mainland must keep pace lest their cost per unit of product become economically unprofitable," he states.

"From the long-range viewpoint, it is necessary that improvements in production, processing, and marketing techniques be constantly improved also for those products for which Hawaii now has unique advantage, particularly tropical and semi-tropical crops not produced on the Mainland. Other tropical countries are undertaking research on similar crops, and it may be anticipated that competition for the mainland market will become greater in the years to come.

"Thus, it seems prudent to continue a strong, progressive program of research at the Hawaii Agricultural Experiment Station in the interest of Hawaii's agriculture and allied industries, as well as for the urban consumer, so that Hawaii's food producers may have an equal opportunity with farmers from other states and countries to realize the potential of technological improvements."
Sources of Income
July 1, 1959, to June 30, 1960
(excluding funds for physical plant)

TOTAL INCOME
$12,288,000

A Dynamic Force

No one present at the Fiftieth Anniversary address of Dr. Reuben G. Gustavson, who had just left academic circles to head Resources of the Future, Incorporated, is likely to forget his opening wisecrack. "I have exchanged academic robes," he said, "for foundation garments." It rocked the audience.

While in no position to divest themselves to any degree of their academic duties, faculty and staff members have become increasingly active in supporting the programs of the University of Hawaii Foundation. Established as an independent corporation to receive and disburse nonappropriated funds for the benefit of the University, the Foundation has slowly but steadily assumed an increasingly important role in the community. Life memberships (based upon a minimum contribution of $100) increased from 153 to 188, non-voting memberships from 148 to 157. Over $175,000 in new contributions were received. More than $8,000 of unrestricted funds were allocated. They promoted faculty travel to mainland meetings, fees for visiting lecturers, monthly public relations luncheons, a monthly news sheet, Malamalama, and other purposes.

Unrestricted funds for purposes which it is difficult to anticipate or obtain legislative support for are the Foundation’s greatest need. Among the activities for which the trustees administered restricted funds were student scholarships, the Manoa Arboretum, and grants for research in agriculture and other fields.

A promising indication of the Foundation’s future development and increased service to the University and the State is the fact that it is being approached by individuals and their lawyers who wish to designate the University as the beneficiary of bequests.

Philosophy and the World Today

IVELY local interest in the East-West Philosophers’ conferences was evidenced when 126 community leaders pledged $1,000 each to finance the forthcoming conference.

Remote as full financial support of the University was enabled to set 196 as the conference date—five years earlier than originally planned.

This overwhelming backing clearly indicates to the nation and the world that the citizens of the State solidly support the concept of the East-West Center.

The unprecedented fund-raising campaign was based upon the conviction that a person-to-person, “grass-roots” relationship is the most effective means to promote mutual understanding and respect among peoples.

The success of the campaign is attributable to growing recognition locally and throughout the nation of the social significance of philosophy and of the practical applicability of its basic theories to daily living, and to fine coverage of the 1959 conference by the local press and wire services.