



Site for the Asian AUSTRAL Nuclear Center

By Colonel Blas Alejandro, OS



HE Philippines was recently chosen, from among South and Southeast Asian countries, to be the site for the proposed Asian Nuclear Research Center.

Conceived to implement President Eisenhower's "Atoms for Peace" plan, the proposed center will serve as a training ground for Asian countries in harnessing atomic energy for research in agriculture, medicine and industry. Operation of the center stands to benefit the underdeveloped countries in this part of the world. To quote a Manila daily editorial, "The operation of the center will contribute not only to the knowledge but (also) to the immediate economic progress of this part of Asia."

Among the countries intended to be served by the proposed center are: Pakistan, Nepal, Ceylon, India, Burma, Thailand, Indonesia, South Vietnam, Cambodia, Laos, Malaya, British North Borneo, Japan, and the Philippines.

Implementation for the establishment of the proposed center requires coordination of the decisions of the State Department with the actions taken by the International Cooperation Administration on advice of the Atomic Energy Commission.

It is anticipated that, the entire project will be financed by the United

States government. \$30 million is estimated cost to "spark plug" an extensive atom research program in Southeast Asia for the first five years.

With the choice of the Philippines as site for the Asian Nuclear Research Center, experts on atomic energy who conducted an "on the spot" survey of the area have allayed fears of some people who would take the center as a "center of destruction."

'Center in the Arc'

In a speech before the Consultative Committee for Economic Development in South and Southeast Asia, in Singapore, last October 20, 1955, Director Hollister of International Cooperation proposed that the regional research center for atomic energy matters be established some place in the arc of free Asia.

Following the developments leading to the survey of Southeast Asia for a suitable site for the proposed atomic center, each of the Colombo Plan countries in the area — with the exception of India which has its own program of research — vied for the honor of being selected as the site for the Asian Nuclear Research Center.

The final selection of the Philippines as site for the center goes to show that the Philippines is just the ideal site for the project. The

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country can boast of the fact that it is still the "freest of the free" in this part of free Asia. It is, indeed, the center in the arc.

Ike Okays PI for Site

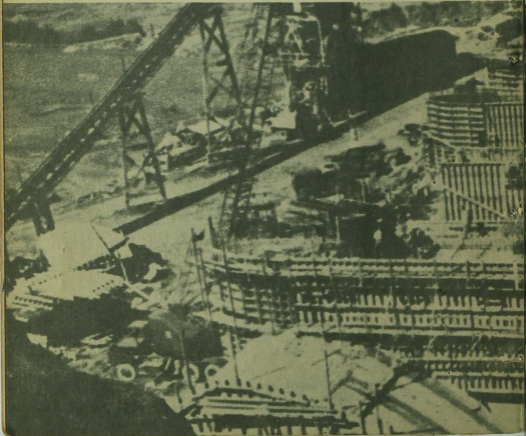
Early in 1956, President Eisenhower approved the recommendation of Herbert Hoover, Jr., Assistant Secretary of State, that the Philippines be designated as the site for the proposed center.

Hoover toured Southeast Asian countries in the latter part of 1955. The existence of United States mi-

litary and naval bases in the islands and the over-all peaceful conditions obtaining in the islands, in no small measure, may be attributed to have spurred the department of state officials in urging the approval of the Philippines as site for the Asian Nuclear Research Center.

Designate Atom Experts

Under the Joint National Economic Council-ICA Interdepartmental Committee on Atomic Energy, preparations were made for the survey of a site for the Asian Nuclear cen-



ter by a team of atomic scientists and engineers.

The Brookhaven National Laboratories was designated to constitute a technical panel to conduct an "on the spot" survey for the proposed center. The team consists of ten leading atomic experts, namely: Dr. Marvin Fox, senior physicist and chairman of the Reactor Department of Brookhaven National Laboratories; Dr. Harold Smith, senior geneticist, Brookhaven National Laboratories; Dr. Amry Vandenbosch, head of the

political science department, University of Kentucky, and expert in International Organization; Dr. Harold B. Tukey, agricultural experiment expert of New York State and Cornell University; Dr. Victor P. Bon, M.D. with Brookhaven National Laboratories and expert on radiobiology and ionizing mammals.

Dr. Fred C. Vonderlage, director of Oak Ridge school of reactor technology, and program director for training; Ralph J. Strom, division of International Affairs, Atomic Ener-

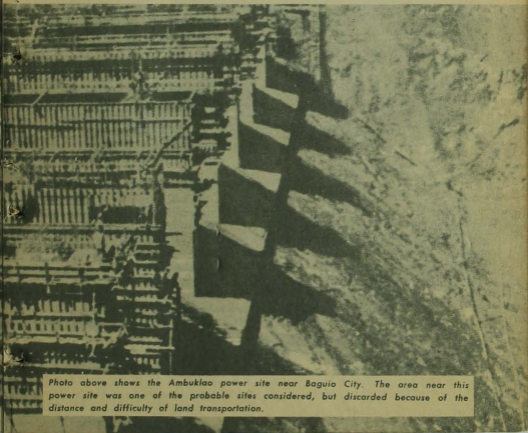
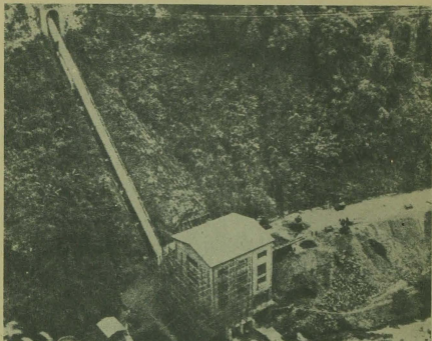


Photo above shows the Ambuklao power site near Baguio City. The area near this power site was one of the probable sites considered, but discarded because of the distance and difficulty of land transportation.



The long sea flight to Mindanao precluded the consideration of the Maria Cristina power site in Iligan, Lanao. Photo above shows a section of the gigantic Maria Cristina hydro-electric power project.

gy Commission of the United States; Horace H. Smith, diplomatic and consular officer; Solomon H. Chafkin, international economist, International Cooperation Administration, and in-charge of projects under Asian Economic Development Fund; John F. Hogerton, project manager of Engineering Division of Vitro Corporation of America, and Atomic Industrial Development expert.

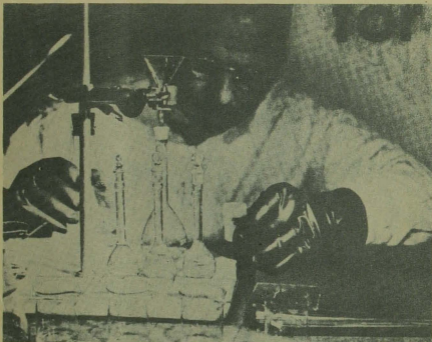
Vanguard of Team

Hogerton and Chafkin, formed the vanguard of the team. The two experts arrived on April 1956 to confer with Philippine officials and ICA, and to make advanced prepara-

tions for the arrival of the team, who were on the way from Europe, the Middle East and South Asia.

The projected survey spurred the Interdepartmental Committee on Atomic Energy headed by Caesar H. Lanuza, and the ICA Manila office under Col. Harry A. Brenn, to coordinate their preparations to ensure the success of the mission.

A program of conferences and technical seminar was prepared by Thomas W. Alder, control officer of the Asian Nuclear Center mission. The itinerary for the survey flight to be made by the Brookhaven team was arranged by Pedro G. Afable



Already nuclear energy is successfully performing many useful jobs in basic research, medicine, agriculture, and industry. Photo shows a scientist learning new uses of radioisotopes.

of the NEC Planning division. And Coordination work with Commander M. E. Calinawan, assistant appointments secretary at Malacañang and Lt. Col. Emilio Borromeo, senior military aide to President Magsaysay was undertaken.

At this point, it would not be amiss to say that in spite of the short time given to all the participating offices to put together and secure approval of an integrated program of activities for the survey, there was perfect coordination and every activity came off as scheduled.

Other Experts Arrive

The other Brookhaven team mem-

bers arrived on the evening of May 23. They were met at the Manila International Airport by Col. Brenn of ICA and FAO officials. Early the next morning, the 24th, the team made a courtesy call on President Magsaysay at Malacañang.

A hectic round of activities followed later. An important conference and briefing attended by both the Brookhaven team and the Interdepartmental Committee on Atomic Energy members took place at the ICA Building at Dewey Boulevard at 10 o'clock in the morning of May 25.



Information gained through radioisotope experiments will enable farmers to grow more and better crops and finer livestock.

Site Requirements

Prime considerations for the site to be selected was the requirements for an adequate water supply (150,000 gallons per day), and an approximate area of 500 acres (approximately 200 hectares).

During the conference, Octavio Maloles of the Foreign Affairs office inquired about the possibility of radiation and/or contamination of the surrounding area, especially the water supply near the projected center. Dr. Fox, to whom the ques-

tion was directed, emphatically answered that there was absolutely no danger of a destructive explosion. He assured all the Interdepartmental Committee members that the water contamination, if any, would be comparable to an ordinary industrial plant processing non-atomic material.

Sites Considered

Using a large map of the Philippines for reference, the conferees discussed possible sites for the proposed center. Three probable sites were considered: Baguio City, near



Ambuklao power site; Quezon City, near the Novaliches and Ipo watersheds; and the Caliraya power site, bordering Laguna de Bay. Final selection of the best site was held in abeyance on motion of Mr. Filemon Rodriguez, formerly head of the NEC pending the results of the Survey flight in a PAF plane scheduled for the following day. The long sea flight to Mindanao precluded the consideration of the Maria Cristina Power Site in Iligan, Lanao. The difficulty of land transportation to

the Larap Mines, Daet, Camarines Sur, militated against its being included as a possible site.

Accessibility to Manila was a big factor in the final selection for the Center, since foreign scientists from the member countries of the Colombo Plan would be better accommodated in the city. Twenty conferees signed up for the survey flight, with most of the Brookhaven Team and their opposite numbers in the Interdepartmental Committee signifying their wishes and making helpful suggestions for the route to be taken.

On the Spot Survey

The actual flight started at 0700 hours on 26 May 1956 from the Nichols Air Base where the PAF plane took off. The modernistic skyline of Manila, impressed the visitors, some of whom were visiting the Philippines for the first time. A few passes were made over the UP Diliman site in Quezon City and the nearby watershed in Novaliches and Marikina hills. Mr. Jose Jovellanos of the National Power Corporation, pointed out the steel towers for the NPC power line leading to Ambuklao, which almost parallels the Manila North Road. With the line of towers acting as our "beam," the PAF plane flew northward, maintaining an altitude of 1,000 feet to enable the Team members to observe the terrain in Central Luzon.

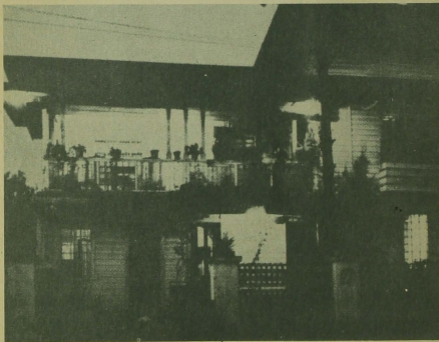
Cutting to the west over Lingayen Gulf, the plane followed the Ilocos Coast up to the Amburayan River. Taking an easterly heading to take advantage of the natural pass into the Cordillera range of Mountain Province, the survey team fol-

lowed the headwaters feeding the Ambuklao watershed. Even at a distance, the Ambuklao Dam was very impressive. One of the visiting scientists compared it to Boulder Dam, and the enlarging body of impounded water as reminiscent of Lake Mead. Landing at the Loakan Airport, after making several circuits of Baguio City and Camp John Hay, the Survey party had a chance to "whiff" the cool Baguio breeze. USAF vehicles were waiting at the airfield to conduct the visitors on a tour of Baguio and Camp John Hay, where team mem-

bers were served an early lunch at the Officer's Mess through the courtesy of Col. Brenn.

The return flight back to Manila was made in the afternoon before the fog from Sto. Tomas Peak could settle on the Loakan Airport. Flying southward along the Kennon Road Canyon, the plane took the alternate route of the NPC Power Line through Nueva Ecija, Bulacan and Rizal. Veering southeast to the Sierra Madre Mountains, the survey party flew over the Ipo Dam and neighboring Montalban Dam. Continuing over Antipolo and Binango-

Operation of the Nuclear Research Center in harnessing atomic energy will benefit the underdeveloped Asian countries. Its equivalent energy is sufficient to provide complete night-time electrical illumination for all of the rooms in a Filipino home shown in photo.





landing at the Lookan Airport, after making several circuits of Baguio City and Camp John Hay, the survey party had a chance to "whiff" the cool Baguio breeze. Author may be seen fourth from right.

nan, the plane followed the northern coast of Laguna de Bay to Caliraya Power site, thus completing the aerial survey of all power and water sites in Northern and Central Luzon.

A pass over Los Baños Agricultural College and Tagaytay Ridge rounded out the planned tour for the Brookhaven Team, who expressed complete satisfaction upon landing back at Nichols Air Base.

The PAF had completed another important Survey mission successfully without accident.

Most Promising Sites

The arrival of the Architect-Engineer members of the Brookhaven Team — Edson Churchill Lee and Colonel Lyle Rosenberg, USA (Ret), started the detailed consideration of the possible sites that had been surveyed. This resulted in a decision to go on ground reconnaissance of the UP Diliman and the La Mesa—Novaliches areas as the most promising prospective sites. Before a road and field survey was undertaken, UP and NWSA authorities were consulted, and detailed contour maps



were obtained from Office of the Chief Engineer, AFP. The water facilities at Balara and artesian well possibilities were also looked into.

Lee and Col. Rosenberg conducted several reconnaissance trips over Diliman and Novaliches sites. All the opportunity to observe closely the terrain features which would enable them to select the best locations for the Research Center and subsidiary structures was given them. After the thorough ground survey, it was decided to supplement the

earlier plane flight with a lower level aerial reconnaissance by means of a PAF Helicopter.

Final survey of the approved site was undertaken by the Architect-Engineer Team, in a PAF Helicopter. Engineers Lee and Rosenberg accompanied by this author took aerial photographs of UP Diliman and Novaliches.

UP Site for Center

The culmination of the 10-day survey of the Brookhaven Team was the round-up conference with Pres.



The American atomic survey team led by Dr. Marvin Fox (to President's right), handing to Pres. Magsaysay the different findings and observations of the Brookhaven team. Col. Alejandro (third from right), liaison officer for the projected survey, participated extensively in the successful accomplishment of the mission.

ident Magsaysay, held at Malacañang on 2 June 1956 at 10 o'clock in the morning. Dr. Marvin Fox gave a verbal report covering the results of the survey, and the different findings and observations of the Brookhaven team.

The President asked for a fill-in about the latest developments in Nuclear Research, especially in the fields of medicine and agriculture which are the two activities the Philippines is vitally interested in.

With the presentation by the Brookhaven team's recommendation

of UP Diliman area as site for the Asian Nuclear Center, President Magsaysay approved the recommendation of the visiting experts on atomic energy.

Thus culminated the difficult task of selecting the seat for one of the most important projects ever to be undertaken in this country, and in whole Asia for that matter. With the accomplishment of the team's mission comes another boon to peace—a rededication to constructive efforts for peoples throughout the world.