

consideration. Cancer kills 320,000 a year in the United States, but heart disease claims the lives of 735,000 individuals annually and investigators in that field might well demand a separate institute of their own. And in fact they are asking for a crash program in heart research (see p. 461).

And finally, there is the question of the money itself, of whether the Government would pour new funds into

cancer research or merely transfer resources that would otherwise be channeled among other fields.

None of these issues will be resolved easily or soon, but as one spokesman for cancer research said: "Cancer research is never going to be the same again. The mere fact of the report has lifted it out of the pack and, whatever happens, should encourage special sympathy from Congress." □

OCEAN DRILLING

Probing the Atlantic's past

According to current reconstructions of the pattern of continental drift, the east coast of North America was once joined to the northwestern bulge of Africa. About 200 million years ago, the theory goes, the two continents broke apart and sea-floor spreading opened up the Atlantic Ocean between them. It follows from this that the ocean crust on both sides of the Atlantic would be the same age.

But scientists on Leg 14 of the Deep Sea Drilling Project, led by Drs. Dennis E. Hayes of Columbia University's Lamont-Doherty Geological Observatory and Anthony C. Pimm of the Scripps Institution of Oceanography, have found evidence that the eastern coast of the Atlantic is much younger than the western coast.

Fossils recovered from sediments directly overlying the ocean crust near the continental margin of West Africa indicate that the sediment, and therefore the crust, is only 110 million years old—45 million years younger than the oldest sediment recovered on previous legs of the project from the continental margin of the eastern United States.

To explain this discrepancy, the researchers propose that a narrow proto-Atlantic Ocean once separated the United States and Northwest Africa.

This ancient ocean, they suggest, must have been enlarged to the present ocean by sea-floor spreading along a rift that was closer to Africa than to North America.

"One thing that supports this theory," says Dr. Hayes, "is that the Mid-Atlantic Ridge is not quite 'mid,' but is about 300 or 400 kilometers closer to Africa."

The second puzzle is where the proto-Atlantic came from. There are two possible explanations, says Dr. Hayes. "Either there was an earlier phase of spreading along a zone that has since been obscured, or it was there all along."

At another site, about 400 miles from the West African coast, the researchers drilled into a small conical structure protruding from deep within the sediments to near the sea floor. Similar structures in the Gulf of Mexico had previously been drilled and found to be salt domes, frequently associated with oil and gas. Seismic surveys show many such structures along the coasts on both sides of the Atlantic (SN: 8/15, p. 142), and many people assumed that they were also salt domes and attached high hopes to them as potential sources of oil.

But when the dome off Africa was

drilled, it turned out to be of volcanic origin. There were no signs of salt or hydrocarbons. "We've deflated a balloon," says Dr. Hayes.

Another significant discovery, says Dr. Hayes, was a gap of as much as 60 million years in the age sequence of several sediment cores from the floor of the eastern Atlantic.

Similar gaps had previously been found in cores from other parts of the ocean, says Dr. Hayes, and these new cores show that the phenomenon occurs over a very large geographic area. The ages of the missing sediments also correspond, he points out, to the period of mountain building in Africa and Europe, when the Alps and the Atlas Mountains were forming. Both phenomena, the researchers suggest, may be related to a change in the pattern of continental drift 30 million to 70 million years ago. □

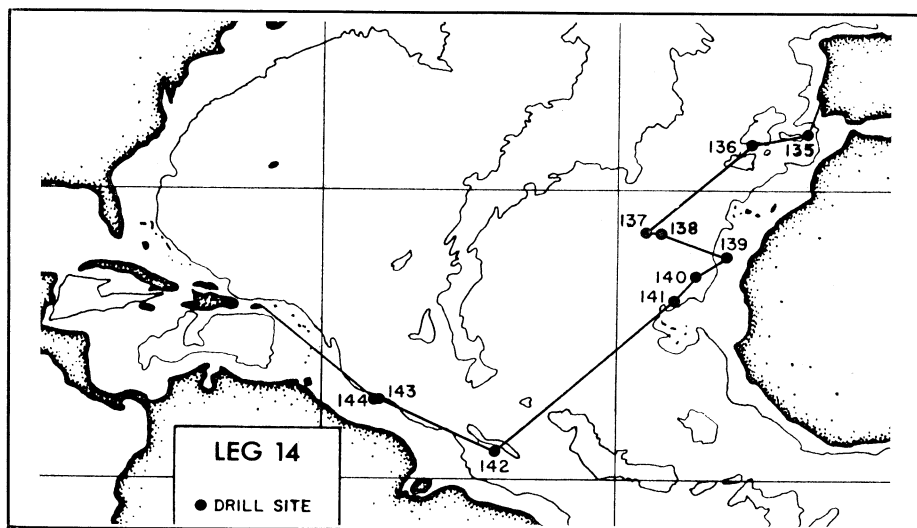
SEABORG ELECTED

In-house politics at AAAS

The annual process of electing a new president of the 135,000-member American Association for the Advancement of Science is usually carried out quietly behind the scenes with the appearance of goodwill and unanimity that scientists like to present as their public face. In past years, the election attracted little outside interest. The AAAS, although large, is diverse and without any strong tradition for activist involvement, as an organization, in public issues of science.

But the AAAS is a changing organization, and this year's electoral process produced sparks. The announcement this week of the election by mail ballot of Dr. Glenn T. Seaborg as president of AAAS climaxes a period of unusual turbulence for the organization. The basic issue centered on the possible conflicts of interest some AAAS Board members felt might arise between Dr. Seaborg's duties as Chairman of the Atomic Energy Commission and as president of the AAAS. But before the electoral process was over, the secondary issue of the appropriateness of a news article discussing opposition to the Seaborg candidacy in AAAS's weekly magazine, *SCIENCE*, had arisen and the magazine's news editor, Daniel S. Greenberg, had resigned.

The whole thing began in June when the AAAS Committee on Nominations and Elections selected Dr. Seaborg and Dr. Richard H. Bolt of the Cambridge, Mass., consulting firm Bolt, Beranek and Newman as candidates for the presidency. The nominations were announced in September, but by November enough internal opposition had surfaced for the AAAS board chairman, Dr. H. Bentley Glass, to describe to



Scripps

Leg 14 sites: New light on continental drift patterns and mineral resources.



AEC

Seaborg: Elected despite controversy.

Dr. Seaborg the concerns of some of the board members. After consultation he decided to continue as a candidate. Mail ballots were subsequently sent out to the 530 voting members of the AAAS Council.

One of the main objections of dissident board members to Dr. Seaborg's candidacy was that it came at a time when the AAAS was becoming increasingly involved in environmental issues and the AEC was coming under increasing attack by environmentalists. They pointed out that the AAAS Committee on Environmental Alteration plans to study the effect of power plants on the environment and that Sen. Edmund Muskie (D-Me.) had asked AAAS to make a scientific judgment on the controversy between the AEC and Drs. John Gofman and Arthur Tamplin (SN: 5/23, p. 500) on the safety of nuclear power plants. With Dr. Seaborg as head of both organizations, the appearance of a conflict of interest would be hard to avoid, they argued.

Dr. Seaborg maintains that there would be no such danger, since he would withdraw from any considerations in which his role as AEC Chairman might be considered to be in conflict with AAAS matters.

Another argument was that the AAAS is currently trying to attract more young scientists as members, and Dr. Seaborg's identification with the AEC would harm that effort.

Still another concerned his role as president of the board of Science Service, publisher of SCIENCE NEWS. There has been some discussion this year of a merger of Science Service with AAAS, but conditions were not ripe for the move and the talks were abandoned. In the remote event that the discussions were reopened, opponents argued, Dr. Seaborg could find himself on both sides of the street. But that eventuality was considered extremely unlikely.

When Seaborg opponents brought

these objections to the attention of the news staff of SCIENCE, one of its reporters, Philip M. Boffey, prepared a news article on the controversy. SCIENCE editor Philip H. Abelson refused to allow it to be published, and news editor Greenberg resigned. The resignation prompted newspaper stories into the whole controversy. Because of this public attention, and the fact that the mail balloting was by then concluded, Dr. Abelson decided an article would then be appropriate, and a full updated report on the entire sequence of events appeared in the Dec. 11 SCIENCE.

Despite this fairly extraordinary in-house dispute, Dr. Seaborg easily won the election. The tally was not announced, but it was said to be by about a 10-to-1 margin. Supporters could well claim this vindicated Dr. Seaborg, but all the effects of the wounds caused by the incident will not be known for a long time. □

INTERNATIONAL ACTIVITY

A flurry in space

This week, after the National Aeronautics and Space Administration's space shuttle program (SN: 8/29, p. 178) survived this year's final assault from priorities-minded Senators, new spacecraft, all unmanned, filled the skies. Three satellites, a Venus probe and the reanimation of Russia's unmanned moonwalker Lunokhod I (SN: 11/21, p. 397) took part in the international fireworks.

The NASA budget, voted by the Senate and sent on to the White House, was part of an omnibus appropriation bill previously vetoed by President Nixon on the grounds that it was inflationary. During Senate debate on the bill, a move to eliminate \$110 million for initial studies of a space shuttle and space station was defeated. The total NASA budget for fiscal 1971 is \$3.26 billion, \$65 million less than the President's original request in January.

In addition to the awakening of the sun-powered Lunokhod after the lunar night, there were:

■ The descent of Russia's Venus 7 space probe (SN: 8/29, p. 173) through the Venusian atmosphere.

The Soviets made no advance claims that Venus 7 would soft-land via a parachute on Venus. Three previous probes in the last three years apparently did not reach the surface intact (SN: 6/28/69, p. 610). The current spacecraft, some 120 pounds heavier than its predecessors, transmitted signals for about 35 minutes during its descent through the dense, hot Venusian atmosphere.

■ The French launch of a scientific satellite from the South American test base in Kourou, French Guiana. The

satellite will test various instruments to be installed in France's meteorological satellite, Eole, in 1971.

■ The Italian launch of a United States satellite, SAS (Small Astronomy Satellite), (SN: 9/12, p. 225), off San Marcos Island, Kenya. The satellite will detect high-energy X-ray sources in space.

■ And the United States' launch of a new weather satellite, ITOS, redesignated NOAA-1 for the National Oceanic and Atmospheric Administration.

The meteorological satellite contains four camera systems—two for global picture coverage of the earth's weather and two for immediate transmission of cloud photographs directly to receiving stations around the world. □

ATHEROSCLEROSIS

The role of diet

Anyone who wants to avoid hardening of the arteries, which can lead to heart attacks and strokes, should avoid fat cuts of meat, shellfish, organ meats such as liver, butter, egg yolk, bacon and baked goods high in saturated fats and cholesterol. Cigarettes are also taboo, according to a report issued this week by a group of 100 medical scientists.

In a position paper from the Inter-Society Commission for Heart Disease Resources, headquartered in New York City, panelists acknowledged that the several epidemiological studies conducted thus far, both in the United States and abroad, have failed to yield conclusive evidence of a cause-and-effect relationship between heart disease and diet. Nevertheless, authorities working under the chairmanship of Dr. Irving S. Wright, professor emeritus at Cornell University Medical School, agreed that there is sufficient circumstantial evidence to support their plea that the public modify its eating and smoking habits.

The scientists also called upon the food industry to revise processing procedures to moderate fat and cholesterol content, urged new laws to require that foods be clearly labeled as to fat content and recommended that cattle ranchers shift to range feeding and earlier slaughter of animals to yield leaner meat.

Even if such precautionary, and presumably preventive, measures are taken to guard against heart disease, definitive studies are still essential, the panel maintains, to answer the diet-heart disease question once and for all. Such research could take up to 10 years to produce clear answers. To obtain them, the panel urged a "decisive national policy commitment and corresponding allocation of resources over the next years." □