



Repeatedly since June 1956, SR/Research has pleaded for appropriate recognition of science as a force in American foreign policy. Twelve months ago we had the pleasure of reporting the designation of Dr. Wallace R. Brode as Science Adviser to Secretary of State John Foster Dulles. Last month the State Department finally named aides for him abroad—Science Attaches in the Embassies of London, Paris, Rome, Bonn, Stockholm and Tokyo—the first Science Attaches to be assigned in two years. Why the delay? Adviser Brode blamed elaborate security clearance procedures. Old State hands put the onus on his inexperience at liaison. Seemingly science has something to learn from diplomacy as well as vice versa. We hope the two will get to know each other better before the really ticklish science jobs are filled in

Moscow, New Delhi and South America. Full understanding, however, can come only with time. Graham Du Shane, editor of Science, official journal of the American Association for the Advancement of Science, has published an editorial proposing a way to gain the time. We reprint it as an expression of our own belief that statesmanship is as worthy a goal for a scientist as are laboratory experiments.

CAREER SCIENTIST-DIPLOMATS?

They Could Work a Permanent Influence on Foreign Policy

By GRAHAM Du SHANE

THE appointment of Science Officers to serve at several of our embassies prompts us to take another look at the role of science in the Department of State. The revival of the science office, which began nearly a year ago with the appointment of Wallace R. Brode as Science Adviser to the Secretary of State, indicated that the Department recognized the need for a mechanism to ensure that scientific factors would be taken into account in decisions affecting foreign policy and that contact between foreign and American scientists needed to be facilitated.

The general pattern for the organization of the Science Adviser's Office is now clear. At the base is a Washington staff of which the principal officers, in addition to Brode, are as follows: Deputy Science Adviser L. H. Farinholt, who was formerly professor of chemistry and director of the chemical laboratories at Columbia University and science attaché in London in 1954; Assistant Science Adviser Mary E. Corning, physical chemist, who was formerly with the National Bureau of Standards; Raymond L. Zwemer, zoologist, who was for three years chief of the Division of International Cooperation for

Scientific Research at UNESCO in Paris; and Assistant to the Science Adviser Walter M. Rudolph, who has been in the science program since its beginnings in 1947.

The Science Officers (who appear to be equivalent to the attachés under the earlier program) will serve for two years and will be backed up by Deputy Science Officers, who will serve similar but overlapping terms to provide for continuity. These officers will be assigned only to certain major and centrally located countries, but they will be expected to keep abreast of developments that bear on foreign policy in neighboring countries. Provision is being made for carrying out similar functions in countries beyond the purview of the Science Officers by the designation of foreign service officers, who have the requisite familiarity with science, to cooperate with the science office.

THIS is the formal structure. How it will work in practice will depend less upon its table of organization than upon a number of unspecified and informal relations. However favorable the predisposition of the old-line foreign service officers may be to the newly appointed Science Officers, the latter will still have to work out their precise role in the embassies and gain

an accepted place. So also, the Science Adviser's office will have to maintain and improve its working relations with such other branches within the Department as the International Cooperation Administration and the Technical Cooperation Administration and with outside agencies such as the National Science Foundation, the National Academy-National Research Council, and the Killian Committee.

THE new office has its work cut out for it. Not the least of its tasks will be that of avoiding the gradual attrition that afflicted its predecessor, an attrition which was the more readily brought about by the short-term appointments of scientists; when their terms came to an end, no successors were appointed. The new office has a greater assurance of continuity in that its Washington base is permanently staffed, but the Science Officers are still vulnerable by virtue of their limited terms of appointment. Perhaps the best remedy is to establish career appointments for at least some of the Science Officers, who would thus become scientist-diplomats. A permanent cadre of this kind would give greater continuity of experience and increase the chances that the work would be maintained when the political winds blow cold.

MARS OR THE PRESIDENCY: A SCIENCE CHOICE FOR 1969

Lloyd Berkner, America's Top Exponent of the International Traditions of Science, Could End Up in Either Place



—Blackstone Studios.

IF THE first Earthmen to reach Mars find Martian men waiting to greet them, a great many earthly scientists will be surprised. But no scientist who really knows his way around this planet will think it even passing strange if the Martian greeters ask, "Where's Lloyd Berkner?"

Everyone knows Lloyd Berkner—the "inventor" of the International Geophysical Year. That is taken for granted and is beside the point. To other-worldly folk his fascination would be that of a scientific phenomenon. Has he extra perceptions? How does he manage to live what other men dream?

While his confreres talk of the scientist as our last reasonable hope of learning to live in peace, Lloyd Viel Berkner acts to express that hope in everyday events.

Martian men to him would be just another group of people to learn to understand and get along with. That attitude he shares with others. What sets him apart is his initial assumption that understanding is not only possible but a natural function. Interplanetary space is, after all, a measurable extension of the distance between his office, at 10 Columbus Circle overlooking New York's Central Park, and the Long Island Blue Point oyster coast where the running of Brookhaven National Laboratory requires him to get along with the decision makers of the nine Associated Universities he works for—Princeton, Harvard, Yale, Columbia, Cornell, MIT, Pennsylvania, Johns Hopkins and Rochester. And if that jump in behavioral patterns seems too vast for easy belief, he can fill the gap between with all sorts of examples of the peaceful and happy co-existence of forty-three nations—in the International Council of Scientific Unions.

When professional diplomats trouble themselves to examine the words

and methods by which supposedly undiplomatic citizens arrive at agreements that last, there must be something present above and beyond the fine print. If anyone can identify the something, it ought to be Berkner. Because the ICSU pacts of the last three years, the years of his presidency of the world-spanning organization, are now being scrutinized by experts in the State Department and in Foreign Offices of other lands. In fact, the attention currently being paid to these ICSU documents is so great that they have been put together into a special pamphlet for quick reading and reference.

Berkner's own choice of the decisive ingredient is good faith. The scientists of ICSU don't begin their deliberations by offering reservations they intend to abandon later to win bargains. They say what they want, they make real concessions in return for real concessions, and the whole atmosphere is warmed psychologically by the process.

Berkner is impatient with social scientists who theorize about what might happen or how we ought to behave under stress of disagreement. He thinks study should focus on how we actually do behave, what really has happened in specific instances, and what steps experience suggests would be reasonable steps toward altering the present-day environment of international suspicion.

AT THE time he first proposed the IGY, for instance, few people honestly believed there could be much true cooperation between Moscow and Washington. The liaison by which the IGY proceeded through the eighteen months that ended with December 31 was far from flawless. Nevertheless, a relationship did exist, it has survived and it is now being extended through three permanent avenues of scientific exploration: one

in the Antarctic, one on the sea bottoms, one in the depths of interplanetary space.

WHAT kind of human brings such things about? Lloyd Berkner is definitely a male animal, tall, broad-shouldered, with a fine-clipped head, a sturdy unpadding frame, and (the fact that a young woman said this is a high compliment to his fifty-two years) "the vigor of six oxen." His wife (nee Lillian Fulks), serves as supporting member of a rugged partnership. She almost died in line of duty last year, in a motorcar accident en route from home in New Rochelle to the site of a radio telescope Associated Universities is building with National Science Foundation funds in West Virginia. It was only family tradition that two daughters should try to be scientists, and only normal Berkner-ism that they should be forgiven for abandoning the attempt. In any event, three peripatetic researchers might have generated too much centrifugal force for the good of the clan. Mr. Berkner—he's one of the few prime movers in American science who is plain Mister; prime moving has occupied him too thoroughly to allow him time to get a Ph.D.—circulates enough himself for even a large family. His trips from New York to Washington (where he sits as a member of President Eisenhower's Science Advisory Committee and chief of the Space Science Board of the National Academy of Sciences) are too frequent to be classified in any other way than "commuting." His ICSU work often takes him abroad. When his lateral progress is impeded, he moves vertically; during a stay of several weeks in the Antarctic late last year, he took to the air for five hours every day.

Being so constantly on the go, how does he get done the multitude of things that must be done in fulfill-