30 to 40 percent foreign participation. That could prove difficult, as the French Ministry of Defense may help CNES finance the French share of the project.

The 8-year ESRO program, decided upon in December 1971, was also the result of a hard-fought compromise. Early in 1971, France threatened to leave ESRO unless emphasis was placed on application satellites, and ESRO closed down its plasma laboratory at Frascati in Italy and its sounding-rocket launching range at Kiruna in Sweden. France also contended that, instead of hiring more and more people in its technical center (ESTEC) for new projects, ESRO should try to make use of the national facilities and teams that were available. France insisted that the meteorological satellite Meteosat, which was first studied by CNES and then handed to ESRO, should be built under the supervision of an international team working in the French technical center at Toulouse. A final requirement was that the future program of scientific satellites should be restricted to $27 million each year, while the application program would rise to $70 million in 1974.

Although the member countries of ESRO accepted those proposals, they have had some difficulty starting their threefold application program. They are now actively building the stationary satellite Meteosat, which is similar to the American Synchronous Meteorological Satellite and will also be part of the Global Atmospheric Research Pro-

Briefing

U.S.-Chinese Science: Who's in Charge Here?

The announcement recently by Henry Kissinger that the United States and mainland China will establish liaison offices in each others' capitals to handle scientific exchanges and other features of normalized relations means that control of science contracts between the two nations has now moved to the center of government and out of the hands of semiofficial and private groups, which have until now carried the ball.

The U.S. liaison office in Peking will be organized by Kissinger's staff on the National Security Council and by the appropriate group at the Asian desk of the Department of State: the People's Republic of China and Mongolian Affairs office, whose chief, Alfred Jenkins, accompanied the peripatetic Kissinger to Peking. Spokesmen in that office declined to say whether the United States will appoint a science attaché there, but admitted that something of the sort may be given serious consideration. Kissinger also announced plans for the Chinese to send experts in water conservation, insect hormones, high energy physics, and computer science to the United States; teams of American physicians and scientists will visit China.

As the initiative for such arrangements moves out of the hands of groups like the National Academy of Sciences and the semidissident Federation of American Scientists, will private groups be edged out of the picture altogether? Ethan Signer, one of the first U.S. scientists to visit mainland China, in 1971, thinks not; he notes that Scientists and Engineers for Social and Political Action, the left-wing professional group, had a delegation in Peking at the same time Kissinger was there.

—D.S.

NIH Advisors Advised Penury Is Nigh

Forewarning of a financial crisis for biomedical research was issued on 23 February at a meeting of the committee of advisors to the director of the National Institutes of Health. Institutes will have to cut back on support promised for existing grants in fiscal 1974 in order to fund even a reasonable proportion of new grant applications, the committee was told.

Meeting for the first time in public, the committee discussed the relative merits of the grant and contract mechanisms of research support, mostly to the detriment of the former. (The difference is that under a grant a scientist does what he wants, under a contract, what an NIH administrator tells him to do.)

One member of the advisory committee, Marian Koshland of Berkeley, said she felt that respect for the NIH in the world biomedical community "could be destroyed by one big scandal, and in the present contract system there is the possibility of a future scandal." The problem is particularly serious in the National Cancer Institute, she told the committee.

Challenged by an NIH administrator to cite instances of waste, Koshland said she knew of a scientist who had applied for a $5000 contract to run a mouse colony but was told that this was too small to bother with and he should apply for a $50,000 contract. NIH administrators said they knew of only one instance in which an application rejected for grant support received a contract. The National Cancer Institute is the major, but not the only, dispenser of contract funds.

Koshland also reported criticisms of the contract mechanism made by chairmen of the NIH study sections (the groups of outside scientists who evaluate grant proposals). The chairmen, she said, noted that in some institutes the same people were involved in all stages of a contract, from making an award through having their names on the paper embodying the research results, a situation fraught with possible conflicts of interest. Second, the contracts were inadequately advertised by the NIH (in the *Commerce Business Daily*, which not many university scientists get to see). Third, there was no integrated method of awarding contracts, such as exists for grants.

The study section chairmen, however, had admitted, when pressed by former NIH director Robert Q. Marston, that few good investigators were going unfunded at present, Koshland reported.

This may not be the case in future. Robert Berliner, NIH deputy director for science, told the advisory committee that the National Institute of General Medical Sciences, a principal patron of basic research, will have to cut back on funds promised for existing grants in the remainder of fiscal 1973 in order to find funds for new grants. Even so, only the applications rated 1.5 or better by the study sections (roughly the best 15 percent) were likely to be funded. And in fiscal 1974, Berliner said, all institutes except heart and cancer would be in a similar situation.

The advisory committee members, many of whom are university scientists, probably did not like what they heard. They can do little about it, save offer advice. But at least their frustration was aired in public.—N.W.