

decide all major issues if it won the support of nations with only 12.5 percent of the vote.

This system of decision making may seem strange for an international organization. In fact, Intelsat was never supposed to be simply an international organization; it was supposed to be also a commercial organization, providing communications services for member countries. Run in an efficient, business-like manner, it would concentrate on achieving rapid, sound results. The dividends for international cooperation would be mainly the achievements themselves (better communications, transoceanic television, and so on) rather than the process of achieving.

Looked at abstractly, then, the U.S. domination is almost absolute. Comsat was the American representative on the governing board; Comsat was also the "manager." Because the American vote was more than 50 percent, Comsat could, in effect, give itself orders. Americans involved with Intelsat say this control was more theoretical than real. In a cooperative international group, they say, most decisions, to be effective, must have a wide base of support; thus Intelsat's governing body almost always acted on a unanimous—or near unanimous—recommendation.

Be that as it may, the Europeans clearly see a difference between the agreement arrived at in 1964 and the one that the recent conference was supposed to make: the first was temporary, the second would not be. The Europeans want an end to Comsat's role as "manager" and reduction of the U.S. voting power.

This desire, though it certainly involves motives of pride and prestige, also raises (once again) the question of the "technology gap." Advanced communications technology—specifically, satellite communication technology—is likely to be important for a long time to come. The Europeans, closest to being American rivals, do not want to see the control of that technology centralized forever at Comsat. Comsat, they emphasize, has its own corporate interests to pursue. There is some (though not universal) suspicion that those interests and Intelsat's interests may not always be identical.

Just how this conflict will be resolved is unclear. In a month of meetings at the State Department, the participating nations did not arrive at even a draft agreement. Many delegates foresaw this deadlock: a large international

conference, they said, is not the best place to make compromises over sensitive issues.

There does seem to be some common ground. The Europeans do not suggest that Comsat be abruptly divested of all its Intelsat work. Far from it. Comsat today is the expert in the field; no one wants to jeopardize Intelsat's success by disrupting the practices of the last 5 years. What the Europeans want is to make sure that Intelsat's institutional arrangements allow ultimately for greater contributions from others. An international secretariat would replace Comsat as Intelsat's "manager," and technical tasks would be subcontracted by this secretariat. Comsat would receive the bulk of the early work, and other organizations would benefit only as they demonstrated genuine competence.

Later this spring, a working group of participant nations will reconvene in Washington to restudy the problems. Then, in November, the full conference is expected to reassemble to debate actual draft documents prepared by this smaller group.

The U.S. approach is to raise the banner of pragmatism. Intelsat has worked, so why tamper with a successful formula? The fundamental issue lies deeper. Technological superiority, no less than economic or military superiority, creates its own foreign policy problems. America's Intelsat partners are pushing for a Space Age which—if not truly international—is at least more multinational.

—ROBERT J. SAMUELSON

Robert J. Samuelson, a former Science news intern, is now a Washington Post reporter.

APPOINTMENTS

In the Department of the Interior, **Donald D. Dunlop**, president of Creative Enterprises International and president of Production Research Corporation, to assistant to the secretary and science adviser; **Hollis M. Dole**, director of the State of Oregon Department of Geology and Mineral Resources, to assistant secretary for mineral resources; and **Leslie L. Glasgow**, professor of wildlife management at Louisiana State University and director of the Louisiana Wildlife and Fisheries Commission, to assistant secretary for fish and wildlife and parks and marine

resources. . . . **Paul D. Carter**, vice provost of Columbia University, to provost of the university. . . . **Robert G. Paar**, professor of chemistry at Johns Hopkins University, to chairman of the department of chemistry.

RECENT DEATHS

Henry D. Brainerd, 54; William Watt Kerr professor of clinical medicine at the University of California, San Francisco Medical Center; 18 March.

John W. M. Bunker, 82; former dean of the Graduate School at the Massachusetts Institute of Technology; 21 March.

James H. Harrold, 44; chairman of the physics department at Kenyon College; 15 March.

Stanley Johnston, 70; professor of horticulture at Michigan State University and superintendent of the university's South Haven Agricultural Experiment Station; 11 March.

Beverly W. Kunkel, 87; former professor of biology at Lafayette College; 6 March.

Alexander Lebedev, 75; member of the Academy of Sciences and one of Russia's top physicists.

Robert C. Lewis, 81; dean emeritus and emeritus professor of biochemistry of the University of Colorado School of Medicine; 23 February.

Jack Masur, 59; assistant surgeon general of the U.S. Public Health Service and chief developer and director of the Clinical Center of the National Institutes of Health; 8 March.

Hugh T. O'Neill, 74; former professor of biology at Catholic University; 7 March.

Sadao Otani, 75; emeritus professor of pathology at the Mount Sinai School of Medicine; 7 March.

David L. Patrick, 69; coordinator of research and vice president for academic affairs at the University of Arizona; 14 March.

Lewis C. Scheffey, 75; emeritus professor of obstetrics and gynecology at Jefferson Medical College; 13 March.

John K. Wright, 78; former director of the American Geographical Society; 24 March.

Erratum: In the report, "Spectra, variability, size, and polarization of H₂O microwave emission sources in the galaxy" by S. H. Knowles *et al.* (7 Mar., p. 1055), the antenna temperature scale for the Orion spectrum in Fig. 2 is in error by a factor of 2. The correct scale is 0 to 500 rather than 0 to 1000 as shown. The antenna temperature scales for the other spectra in Fig. 2 and for those in Fig. 1 are correct as shown.