

## COMMUNICATIONS

**Arrivederci Intelsat**

WILL there be an international satellite treaty in 1970? Perhaps, perhaps not. The Intelsat conference to write a permanent agreement for the world's communications satellite network broke up on Friday in a brave and hopeful mood but without an agreement. It will have to meet again. The third of these huge unwieldy and expensive conferences had produced enough accord to provide about half a treaty.

The United States had finally agreed to let the organization which it had founded in 1964 be managed by an international directorate, rather than by the semi-public American company Comsat. And Zambia joined Intelsat. When an organization can recruit several new members—Yugoslavia was another—while it is still building itself, it cannot be too sickly.

There are some serious disputes still to be worked out before the full membership meets again. The small nations of Africa and the Middle East are passionate to have Intelsat governed by a powerful assembly in which the representatives of governments, not of telecommunications entities, would have a vote, one to a country, all countries equal. Needless to say, the Americans oppose this, but the smaller nations have the sympathy of the British and European bloc which believes that the assembly should be given teeth, even if it is prevented from biting. To sort out this and other contentious issues, Intelsat will set an inter-sessional committee to work. It will meet in May, possibly in Washington, possibly in Guatemala City. Yet even that decision is being subjected to a kind of small nation-big nation tug of war.

## BUREAU OF STANDARDS

**Boom and Diversity**

THE National Bureau of Standards is one of the few scientific institutions in the United States which is clearly destined to grow in the next few years. It is also likely to find itself engaged in several new kinds of projects which, in time, are likely to bring about a shift of emphasis from the traditional preoccupations of standards laboratories with measurement, standardization and compilation to more general responsibilities for the technical aspects of consumer protection and the evolution of government policy towards industrial technology. The way in which the wind is blowing can be seen clearly enough in the annual report of the bureau for 1969, now published (US Government Printing Office, C13/1 : 325, \$1.25). The changes which are afoot have the enthusiastic support of the director of the bureau since September 1969, Dr Lewis M. Branscomb.

Some of the bureau's new work, however welcome, has been thrust on it from outside. Thus the bureau has become the instrument in the United States for the development of technical standards of flammability of the kind necessary to provide protection for innocent consumers under the Flammable Fabrics Act. The bureau seems already to have identified the kinds of fabrics for which new standards will be needed, and is at work on the development of test methods and sampling techniques. Evidently it is going to become the fountainhead of wisdom in the regulation of

flammability standards for the consumer market. In much the same spirit, the bureau has also been given responsibility for safety in the design of automobiles, and has in the past year been hard at work on the development not merely of standards of performance for tyres but on methods of conveying such information to the ultimate consumers. In the past few months, the bureau has also been given responsibility under the Fire Research and Safety Act for the development of methods of fire protection and of standards for making sure that these are properly applied, although at the spanking new headquarters at Gaithersburg, thirty miles into Maryland from Washington, there is a tinge of regret that on this occasion Congress has willed the ends but not the means.

The National Bureau of Standards is also now the organization responsible for making a technical study of the "advantages and disadvantages of increased use of the metric system in the United States". If there is ever to be a change to the SI system, the National Bureau of Standards will provide the starting point—and has already worked out rules for the use of SI units in its own scientific publications. The bureau's annual report says that the Metric Study is now confident of being able to provide "reasonable estimates" of the cost of a changeover to the metric system in several industries of the United States. The report says that the study is starting from the basis "of looking at potential costs as they would accrue if metric measurements were to be applied to new or redesigned products, stressing the concept of planning a transition . . . at an optimal rate, without going back and changing all the drawings that are in the files". This procedure is intended to avoid the "exaggerations and astronomical costs" which come from a "doctrinaire approach based on an all or nothing plunge into metric measures". The report goes on to explain that a changeover would be more practicable in industries where innovation is rapid than in those where equipment remains substantially unchanged for long periods of time, and cites the railroad and oilfield industries as ones in which "changes in existing equipment do not appear to be warranted". One of the jobs now under way is the development of a questionnaire for the collection of information about the needs of particular industries. On the face of things, at least, it looks a little as if the National Bureau of Standards, and the bodies such as the American National Standards Institute with which it is working closely, will recommend a kind of patchwork of standardization.

