

ness was first permitted by the FCC in 1971, when the commission formulated its "open skies" policy. In 1974, Western Union became the first company to launch a domestic communications satellite when it put up Westar I. Quickly, RCA and Fairchild followed suit. Already in geostationary orbit in the mid-1970's, of course, were the Intelsat satellites used by the Communications Satellite Corporation (Comsat), the publicly held, private corporation created by Congress in 1962. These satellites are not for domestic use but are for communication between the United States and other countries—a service area over which Comsat has a legislated monopoly.

In 1975, however, Comsat joined with IBM and Aetna Life and Casualty Co. to set up Satellite Business Systems (SBS), which now hopes to launch its first satellite this October. When plans were first announced, SBS was going to specialize in high-speed data transfer, so that large corporations would not have to go through slow land lines that were originally developed for voice communications. For a variety of reasons, SBS and other satellite companies have lately switched their emphasis from data to voice—a development that will increasingly threaten Bell's eroding monopoly in long-distance voice communications.

The biggest problem for SBS was finding corporations that would buy into the system. After a 4-year marketing blitz carried out among the 300 largest U.S. corporations, the McLean, Virginia, company could come up with only nine customers who were willing to pay the subscription fee of \$108,000 a month. The other companies said they did not know how to effectively use the raw data capacity that the SBS network offered. To sidestep this problem, SBS began to sign contracts with manufacturers to develop products that would help customers use the SBS system. SBS also expanded its marketing effort to include 3000 medium- and smaller-sized companies, and announced that by 1982 it will offer a low-cost interstate telephone service that will link some 150 U.S. cities. "SBS has done a major shift in direction," says Winston E. Himsworth, a vice president of Salomon Brothers, an investment banking firm that specialized in telecommunication stocks. "They're offering a much more voice-oriented, here-and-now communications service."

SBS now predicts that telephone services will account for as much as 40 percent of its projected \$325 million in 1984 revenues, according to an application filed in June with the FCC. Said one FCC official: "SBS is simply doing what other

specialized carriers have done before them. It's going after the MTS and WATS line [discount] long-distance telephone services. After all, that's where the money is." SBS expects that its new telephone service will undercut AT&T by 10 to 30 percent on direct-dialed, long-distance calls.

Congress is concerned with the rapid expansion of such systems. The legislative rewrites of the Communications Act of 1934 that are now mired in fierce debate on Capitol Hill are an attempt to pick a middle path between curbing AT&T's ability to snuff out the competition, and dealing with the need to support Bell's practice of subsidizing the local telephone companies. Bills in both the House and Senate would require Bell's intercity competitors to pay larger access fees to local telephone companies for the right to interconnect with the local systems. The fees would be set high enough to compensate the local companies for the Bell System subsidies they now receive and will probably start to lose. Just what this fee would be is currently under heated debate. AT&T would like the new entrepreneurs to pay about 65 percent more than they currently do for the right to hook into the local telephone facilities. Needless to say, MCI and the other discount companies are lobbying vigorously against such a provision in any telecommunications legislation.

They contend, for instance, that Bell's share of the long-distance market will not diminish because the national market is growing at such a rapid rate. Indeed, Ma Bell's long-distance revenues have been rising at the rate of about 15 percent a year, even with the competition hot on her heels. Questions that legislators must now face are how long the national market will continue to expand, and whether or not the discount companies will grow enough to take a significant share of it.

Such issues illustrate the tricky prognosticating that Congress must attempt as it rewrites the communications laws. Because the stakes for the industries involved are so enormous, and the lobbying so intense, the resolution of these issues has been anything but easy. It is far from certain that Congress will succeed in passing a new law this year. In the meantime, the new entrepreneurs keep chipping away at Bell's long-distance empire, and loving every minute of it. "Dispel any doubt," says MCI chairman William G. McGowan. "We are in the right industry at the right time. The 1980's is the decade of telecommunications." —WILLIAM J. BROAD

## AMA's New Ethics Code Is Major Break from Past

The tradition-bound American Medical Association (AMA) recently adopted a new code of ethics that, for the first time, acknowledges a commitment to patients' rights and that allows physicians to advertise their fees and services and refer patients to chiropractors.

At its annual convention in Chicago, the AMA House of Delegates passed the new code by a large majority.

The changes were fueled by legal pressure from the Federal Trade Commission (FTC) and by lawsuits filed by chiropractors against the AMA. Although the code is not binding, it has occasionally been used by licensing boards and courts.

In 1979, the FTC ruled that the AMA's traditional ban on advertising restricted competition among physicians. Since the decision, physicians have been free to solicit patients, but few have done so. Now the AMA's code of ethics states, "A physician shall . . . make relevant information available to patients . . . and the public."

Chiropractors' lawsuits charging physicians with failure to provide them with patient referrals have cost the AMA about \$1 million annually for several years. The expense is especially painful to the AMA because of declining membership. The organization now has about 192,000 members, a little less than half of the nation's physicians.

The new code of seven principles also indicates that physicians are shedding their paternal self-image by explicitly recognizing patients' rights.

The AMA "has come a long way," said medical ethicist, Robert M. Veatch, a professor at the Kennedy Institute of Ethics, Georgetown University.

Principle II, for example, says that a physician "shall deal honestly with patients. . . ." That is a major departure from the old code, which said a physician could withhold information from patients if it was for their own good—for instance, to protect a terminally ill patient from distress.

Principle IV says that "a physician shall respect the rights of patients . . . and shall safeguard patient

confidences within the constraints of law." The traditional code said that a physician could divulge patient information when required by law, but also when it was in the best interests of the patient or society.

The main problem with the new code, Veatch said, is not in its content, but in the way it was drafted. It had no input from anyone outside the AMA, he said. "It was all in-house."

James Todd, chairman of the AMA committee which drafted the code, doesn't like the idea of including laymen at all. Nonphysicians "don't understand all the ramifications. It's like having the inmates run the institution," he said.

## House Votes Metric Board An Extension After Debate

"What is good for a scientist and what is good for the progress in the scientific field may not be good for the housewife," said Philip Crane, Republican congressman from Illinois.

Crane allied himself with housewives on 22 July when controversy over the role of the U.S. Metric Board flared in the House. Congressmen were debating appropriations for the coming fiscal year. Despite the misgivings of some members, the House voted a budget of \$2.8 million for the group.

Crane and Eldon Rudd (R-Ariz.) said that the metric board has been overstepping its bounds by promoting, rather than coordinating, voluntary conversion to the metric system. When the appropriation bill came up, Rudd tried to tack on an amendment that would prohibit the board from promoting metric.

Board director Malcolm O'Hagan says that the group understands that its role is not to advocate change. "But there's a fine line between education and advocacy," he said.

Rudd argued, for example, that the board is actively supporting metric conversion of gas pumps that would impose "enormous costs, cause confusion, unnecessary hardship, and inconvenience to American motorists."

In support of Rudd's amendment, Crane said that conversion to metric is not necessarily in the interest of ordinary citizens. He added that use of the

metric system doesn't promote U.S. trade overseas as some people contend.

Other congressmen took issue with the Rudd amendment, arguing that the proposal limited the board too much. The chairman of the Committee on Science and Technology, Don Fuqua (D-Fla.) and Representative Robert McClory (R-Ill.) said that strong critics of the board might use the amendment to mean that the group could not even explain the differences between metric and the traditional U.S. system.

After 45 minutes of debate, the House defeated the amendment 260 to 141. Crane, however, was not about to give in. Immediately, for the third year in a row, he proposed an amendment to abolish the board. If persons or private industry want to convert to metric let them do it on their own, not at government expense.

He recalled a meeting this spring at which metric board members were to explain metric conversion to congressional aides. The aides were given packets with metric rulers and tables and then were served refreshments. Crane complained about the waste of taxpayers' money on his staff aide. "What right have we in Congress to take money from a struggling young farmer in Iowa to inform my staff aide that he is 174 centimeters tall?"

Crane's amendment was defeated by a margin of more than 2 to 1.

The House later passed the appropriation, though it cut the group's request for \$891,000 for travel and new contracts.

## Science Teachers to Ban Testing Harmful to Animals

Under pressure from animal welfare groups, two national science teachers associations have adopted guidelines that ban classroom experiments harming animals. The National Association of Biology Teachers and the National Science Teachers Association hope to end animal abuse in elementary and secondary schools and, in turn, discourage students from mishandling animals in home experiments and science fair projects.

Animal welfare groups are apparently most concerned with high school

students experimenting with animals in extracurricular projects. Barbara Orlans, president of the Scientists' Center for Animal Welfare, said students have been haphazardly performing surgery, testing known toxic substances, and running other pathology experiments on animals without even knowing normal physiology.

At one science fair, a student cut off the leg and tail of a lizard to demonstrate that only the tail can regenerate, she said. In another case, a student bound sparrows, starved them, and observed their behavior.

"The amount of abuse has been quite horrendous," Orlans said.

Administrators of major science fairs are short-tempered over the teachers' policy change and the impression it has created. The teachers "were sold a bill of goods by Barbara Orlans," said Thurman Grafton, who heads the rules committee for the International Science and Engineering Fair. "Backyard tabletop surgery is just nonsense." The new policies throw cold water on students' inquisitiveness, he said.

Grafton said he wouldn't deny there hasn't been animal abuse among projects at the international fair, but he added that judges reject contestants who have unnecessarily injured animals. The judges have a hard time monitoring local and regional fairs that may or may not choose to comply with the international fair's rules that stress proper care of animals, Grafton said.

He said that several years ago, the Westinghouse Science Talent Search banned harmful experiments to animals when sponsors threatened to cancel their support after animal welfare groups lobbied for change.

The teachers adopted the new policies also to fend off proposed legislation—in states including Missouri and New York—that would restrict or prohibit experiments on animals.

Officials of the two teachers' organizations say that they don't know how much animals have been abused in the classroom. On one hand, many biology teachers are not trained in the proper care of animals, said Wayne Moyer, executive director of the biology teachers' association. On the other, use of animals in experiments has dropped in recent years because of school budget cuts. The association may set up seminars to teach better animal care to its members.

Marjorie Sun