

be first with breaking news. According to a 1986 newspaper article cited in the report, several television networks showed SPOT satellite photographs of the Soviet nuclear proving grounds at Semipalatinsk "and claimed that the Soviets were preparing to resume nuclear testing. They showed photos of what was described as a 'drill site.' Looking at the photo, any competent imagery analyst would have pointed out that the arrangement and the cable scars terminating at the site would have proved that it was not a drill site but rather an instrumentation site, common to all nuclear proving grounds." The report notes, however, that the media may become better interpreters of satellite photos as use of such pictures becomes more common. It also cites one panelist's view that "it is part of the process of free speech to permit and encourage diverse interpretation," and that "attempts to limit interpretation will have a direct impact on the American people's ability to get information and make their own judgments."

The report notes, however, that it is not at all clear whether the media would in fact find it economically worthwhile to invest in a satellite or satellites of their own. At least, says the document, the costs of such a project might exceed the revenue it produces. If all four major networks used one satellite image every night, this would mean that about 1,500 images would be used annually from a "mediasat" system estimated to cost from \$215 million to \$470 million plus about \$50 million to \$75 million to operate it over a five-year period. This would come to about \$35,000 to \$73,000 per picture, which, the report states, is "an order of magnitude more than existing expenses for daily [network] news coverage."

Furthermore, noted one panelist, the money generated by pictures of the Chernobyl incident "would fit in a thin wallet. When will there be another such accident located in a place where we cannot fly in with a good hand-held camera?" One suggestion is that of a news-satellite consortium to share costs. Said the same panelist, "It could begin to form when EOSAT [the group that markets Landsat data] and SPOT get tired of throwing money at the problem, when Congress takes Gramm-Rudman-Hollings seriously, and when someone sees other countries as a set of partners eager to help share costs, and more importantly, help promote the use of [remote sensing] systems."

There are technical questions as well, including the necessary sharpness (spatial resolution) and spectral resolution of a suitable mediasat, along with the need for photographing a given spot on the earth on short notice or repeatedly over a short period of time in order to cover breaking stories. Each Landsat, for example, passes over the same portion of the earth at the equator once every 16 days,

while a system of adjustable mirrors allows SPOT's sensors to monitor a site 7 days out of 26. All of these matters, the panel concludes, are within the scope of current technology.

But the major concern about a mediasat is far more fundamental: What if the government decides to limit its use?

"Attempts by the U.S. government to restrict the media's access to satellite imagery are likely to result in First Amendment challenges to such limitations," says OTA. "The outcome of these challenges will hinge on the exact nature of the government limitations and the Supreme Court's determination of the constitutional status of newsgathering activities — as distinct from the right to publish information already obtained."

Under current international law, according to the group's report, "there seems little doubt that the U.S. government has the right, and indeed the duty, to exercise its supervision over the space ventures of its citizens." The 1984 Landsat Act requires those operating such systems — which require a federal license — to do so "in such manner as to preserve and promote the national security of the United States." This could conceivably lead to limitations on the use of a mediasat, but some attorneys have argued that the licensing provisions of the act should be declared invalid, since they lack the "narrow specificity" usually required of statutes affecting First Amendment issues.

Proposed rules for licensing private satellites were published last year by the Commerce Department, but they, too, deal more with national-security areas that could bear on such satellites' use than with specific regulations. "The clearest inference one can draw from the OTA report on commercial newsgathering from space," says Rep. Robert A. Roe (D-N.J.), chairman of the committee that requested the study, "is that we must begin immediately to address realistically the information-gathering possibilities that are looming on the horizon." Hearings are planned "to be sure that America has policies and answers readily available at the appropriate time," according to Rep. Bill Nelson (D-Fla.), chairman of the subcommittee involved; the hearings have not yet been scheduled.

"Within a decade," notes the OTA report, "many nations will have their own remote sensing systems. It is unclear whether the U.S. government could effectively limit or control media access to satellite imagery if foreign governments do not exercise similar controls." The potential scope of the issue, says project director Richard DalBello, echoing the Russian word for "openness" often mentioned these days in U.S. news coverage of Soviet events, is "glasnost-squared." □

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World Resources 1987 — The International Institute for Environment and Development and The World Resources Institute. This second volume in an annual series traces the connections among natural systems and the effects of human actions upon them. Includes updated chapters on population and health, human settlements, food and agriculture, forests and rangelands, wildlife and habitat, energy, freshwater, oceans and coasts, atmosphere and climate, and policies and institutions, with a new chapter on global systems and cycles. Highlighted in this 1987 volume is information on the spread of toxic wastes in the developed world and the steps needed to move sub-Saharan Africa toward sustainable agricultural production. Basic, 1987, 369 p., illus., \$32.95, paper, \$16.95.