

Those to be served by the owners of domestic satellite facilities also anticipate large monetary gains. The television networks, for example, expect to save \$45 million a year by using satellites to replace their reliance upon AT&T's terrestrial cable facilities to transmit programming. Satellites will also facilitate the economic plans of cable television operators to establish a nationwide system of interconnection.

This satellite enthusiasm is not restricted to the communications industry. In a recent *New York Times*' advertisement,⁴ the Eastman Kodak Company praises the new business opportunities opened by satellites outfitted with photographic surveillance equipment:

The whole earth from a business viewpoint

Aerial photographic surveillance started as an art of war. Now it has found work in helping mankind make a better peace with its environment. Kodak products, for example, monitor dangerous ice on the sea, as well as the health of lakes and the readiness of hillsides to slide down. Snow fields as fresh water sources are inventoried, as are fishing grounds off continental coasts.

Aerial photography also measures social phe-

nomena. Our color-infrared film has been found capable of providing accurate estimates of the number of families in areas of high population density. Statistics in the public library may lag behind population shifts. Business decisions require fresh, solid facts. We have customers who can pick economic facts out of the air—from an appropriate altitude. Decision-makers who wish to get in touch with such people should write Eastman Kodak Company, Dept. 928, Rochester, N.Y. 14650.

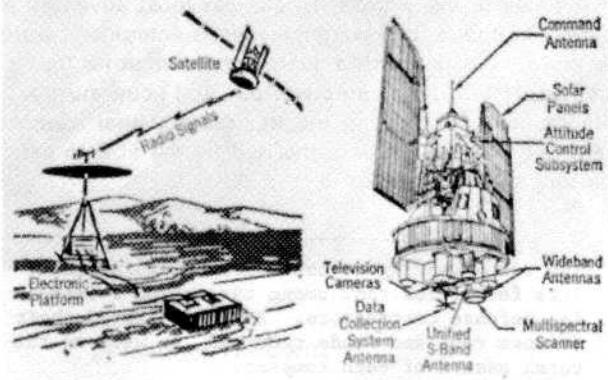
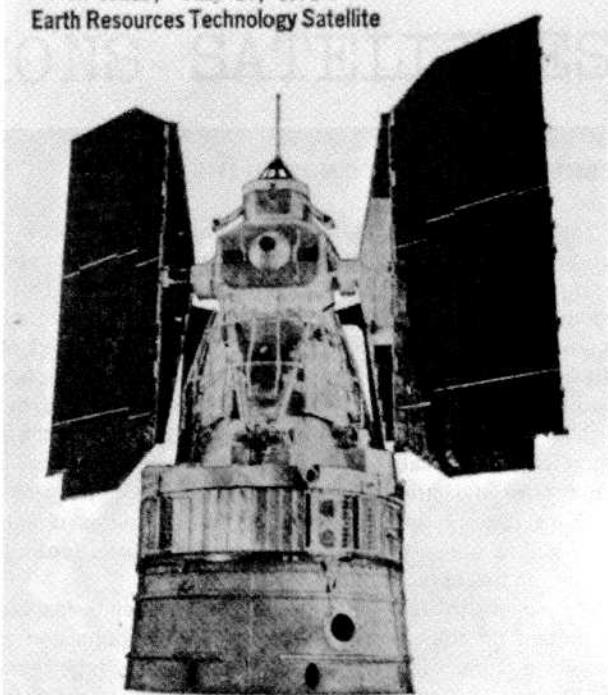
Similar advertisements conveying the many benefits that will result from the remote sensing of the earth by satellites, such as the General Electric ad that appeared in the *New York Times* entitled "Now let's make space technology the starting point for better ecology... better environment... better communications,"⁵ have become commonplace. Such public-service claims by the manufacturers, suppliers, and procurers of the necessary hardware for aerial surveillance* lead a responsible skeptic, aware of the history of satellites, to question whether this space technology will be adapted to an environment of peace or made to conform to a "business viewpoint." One prospective satellite owner, RCA Globcom, has already noted in its satellite plan to the FCC that it intends to make satellite facilities available to the mining and petroleum industries,⁶ a market which that company believes will become a highly lucrative one. Regardless of the desirability of this service, it hardly deserves the industry-sponsored claims for improvements in ecology.

*It is worth noting that the principal contractors for NASA's Earth Resources Technology Satellite, launched last July (1972) to identify sources of environmental pollution and monitor mineral resources, are General Electric and Eastman Kodak.

CITIZEN SURVEILLANCE

The application of satellites for environmental surveillance and land development, though suspect in the minds of environmentalists, may be far less threatening than if they are employed in the future to interconnect a nationwide system of policy and military surveillance. Yet, this Orwellian possibility was outlined in considerable detail in a report prepared by NASA and HEW for President Nixon's Domestic Council, called, *Communications For Social Needs*. This report focused upon how computers, closed-circuit television, and their interconnection via domestic satellites could be used to establish centralized personnel data banks controlled by state agencies and police departments across the country.⁷

New York Times, July 24, 1972
Earth Resources Technology Satellite



The New York Times/July 24, 1972
Earth Resources Technology Satellite, its solar panels spread like butterfly wings to draw energy from the sun, is to scan the earth's surface for new information on the global environment and natural resources. About 150 automatic sensing stations like the one pictured at lower left are to gather and send to the satellite data about such factors as stream flow and soil moisture. Satellite then relays data to earth. Multispectral scanner and television cameras, placed as shown in drawing at lower right, pick up infrared and other electromagnetic waves reflected by earth features. This information is beamed to the ground for conversion into detailed pictures.

It is not difficult to imagine the creation of this citizen's surveillance system. The Pentagon has successfully used satellite communications along with laser and computer technologies in both foreign and domestic intelligence operations;⁸ and its Advanced Research Projects Agency (ARPA), which coordinates university research, has established a coast-to-coast interconnected computer network giving scientists at MIT instantaneous access to data-banks built at Stanford.⁹ Moreover, the FBI has established its own nationwide computer network containing dossiers on millions of individuals which the Bureau deems suspect. This network, known as the National Crime Information Center, coordinates more than 3000 computers located in police departments and state agencies across the country.¹⁰

Computers are only one of the many sophisticated communications technologies now in use by law enforcement

4. *New York Times*, March 25, 1972.

5. *New York Times*, June 11, 1972.

6. FCC, "Domestic Communications—Satellite Facilities," *Federal Register*, Vol. 37, no. 56, Part II, GPO, Washington D.C., 1972, p. 5871.

7. NASA and HEW, *Communications For Social Needs: Educational/Cultural*, Washington, D.C.: The Domestic Council, August, 1971.

8. *New York Times*, October 16, 1971.

9. *New York Times*, April 15, 1972.

10. Arthur R. Miller, *The Assault On Privacy*, The New American Library, New York City, N.Y., 1972.