

## PRIVATIZING AN INTERNATIONAL COOPERATIVE? THE CASE OF INTELSAT

by

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### Abstract

Privatization, commercialization and de-regulation are the buzz words in the communications satellite business these days. What do these policies and market forces portend for the future of INTELSAT, an international cooperative of 139 states? It seems that some services can be privatized and made subject to market forces while other services which are more collective in nature will have to be organized differently. Sharing benefits will take place both by government plans and market forces. INTELSAT has been a great success but in the new more competitive environment it must restructure and it cannot rest on its laurels.

### History

How commercial and entrepreneurial has the market for communications satellite services been? When communications satellite service was established in the United States, Comsat was given a monopoly for sending traffic in and out of the country. It was the carriers' carrier. AT&T, ITT, Western Union and other carriers had to go through Comsat. So, although Comsat was a private corporation listed on the New York stock exchange, it had a preferred position because of the Communications Satellite Act of 1962.<sup>1</sup> Although Congress intended that the corporation be commercial, it also intended that it should serve certain public purposes such as providing services to less developed countries. Such services might not be justified from a purely market-oriented perspective. In the wording of the Act itself, Congress "declares that it is the policy of the United States to establish, in conjunction and cooperation with other countries, as expeditiously as practicable a commercial communications satellite system, as part of an

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improved global communications network, which will be responsive to public needs and national objectives, which will serve the communications needs of the United States and other countries, and which will contribute to world peace and understanding.”<sup>2</sup> One would not privatize some of these goals. Further one would not want to commercialize a collective good because, by definition, due to the lack of scarcity, there can be no free market price to allocate consumption and send signals to the market.

In keeping with the goal of expeditiously establishing a global system, INTELSAT was set up as an international cooperative in 1964.<sup>3</sup> INTELSAT, itself, was a monopoly which pursued not only market-oriented ventures but also certain collective goals such as providing service to remote and isolated areas.

#### The 1990s

It is now more than 30 years since Comsat and INTELSAT were established. In the intervening years, market and political forces in the United States and in other countries have worked to increase the number of actors in the satellite communications arena. Comsat is no longer the only carrier authorized to engage in point-to-point services. It is no longer authorized to be the sole link within the U.S. to INTELSAT. Further, INTELSAT is no longer the center piece of the global communications satellite system. We have INMARSAT<sup>4</sup> and various regional organizations such as EUTELSAT<sup>5</sup> and ARABSAT.<sup>6</sup> We also have INTERSPUTNIK, the international system which was based on the communist states.<sup>7</sup> With the end of the Cold War and the breakup of the USSR and the mellowing of Russia, this

organization became a more marginal actor in the global communications satellite sector. In July, 1991 the USSR joined INTELSAT. Russia, viewed as the successor state to the Soviet Union, took over its seat in 1992.

Are these international entities public or private enterprises? This questions is important for, in theory, privatized actors can provide services more efficiently to the public. Government-owned systems may be inefficient due to subsidies, the need to fund public services, corruption, patronage, etc. The existing picture is very complex. Organizations like INTELSAT, INMARSAT and ARABSAT have been set up by international agreements between states. Other enterprises such as Alpha Lyracom, PanAmSat, Societe Europeene des Satellites and Orion are private. Then, there are some public entities such as Tongasat which have been established by entrepreneurs from other countries in order to gain access to a nation’s orbital slots guaranteed to it by the International Telecommunications Union (ITU). For communications to work on an integrated, global basis, all these entities have to network and to coordinate with each other, whether they are public or private or some sort of strange mix. In reality, as the market has become more competitive, public organizations such as INTELSAT have had to act like private entities if users are to continue to avail themselves of their services. For instance, INTELSAT leases space to over 35 countries for domestic services. While it is mainly a global organization, the market does not readily recognize borders, and so what is domestic, what is regional and what is global tends to blur and be lost in the heavens.

Let us look at another case in point. Motorola believes that the market exists for

hand-held satellite terminals tied into a global network. The company plans to launch a system named IRIDIUM. This will have 66 satellites in low earth orbit. At the ITU's 1992 World Administrative Radio Conference (WARC) in Spain, frequency space in the L band was authorized for this type of personal communications service. INMARSAT, an international organization established by states, saw this system as a competitor to its various mobile offerings. Therefore, INMARSAT decided to establish its own such system, ICO Global Communications. To counter this, IRIDIUM is going to offer the service for less than INMARSAT. Other spinoff market entries are Globalstar and Mobile Communications.<sup>8</sup> Perhaps when the invisible hand in the commercialization of outer space works its way through this market, at the global level we shall see what Arthur C. Clarke has prophesized, "With the historic abolition of long distance charges on 31 December 2000, every telephone call became a local one, and the human race greeted the new millennium by transforming itself into one large, gossiping family."

### New Services

Commercialization in the 1960s was largely a matter of providing point-to-point communications. Channels delivered telephone, telegraph and television traffic. With additional frequency bands being allocated and with new public and private enterprises entering the market, many new services are now provided. In the 1970s, we saw the introduction of maritime services through INMARSAT. This organization is now offering land mobile and aeronautical mobile traffic as well. Other services include fax, radio broadcasting and direct broadcast satellite. Combined with the personal

communications services promised by IRIDIUM and INMARSAT, the ability to send TV programs directly to dishes on individual homes and apartments introduces the next stage of the commercialization of communications satellites on a global basis. We may even see HDTV services provided worldwide. Direct broadcast satellites (DBS) already provide service in certain countries such as Britain, Japan, and the United States.

Clearly, communications satellites present the number one success story of the commercialization of outer space. This process started in 1962 in the United States and it has spread to many other countries and to many regional and international organizations. While not all these enterprises are in the private sector, they do exist in increasingly competitive markets so that even government-owned systems have to be price conscious if they wish to survive.

There are some government systems that serve collective needs and that will never be totally privatized. These are defense systems. They account for a great share of the traffic on a day-by-day basis, and they use a significant amount of the frequency space. Today we can estimate that most traffic within and between nations is business traffic, followed by government-to-government messages, and then come personal services of an individual sort. With the end of the Cold War, the military is giving up access to some frequency space. Individualized and personal traffic will take up more of the market, but we are still quite a long way from the realization of Arthur C. Clarke's dream of a global village. Even then, some skeptics will see television as dominating the market. The communications infrastructure will be global and planetary but the messages being carried

may point to one television wasteland writ large. Of course, if this becomes the case, it would be the choice of the market. The wasteland would be a market failure from the point of view of community values if not economic profits.

### A Newer Technology

There is another technology in place that the market may prefer to communications satellites. Fiber optic cables are handling more and more traffic. Capacity has been doubling every two years. Each strand of glass fiber can carry 525 Mbs of digital video which equals at least twelve TV channels, and one fiber optic cable can have up to 96 strands. However, fiber optic cables have their disadvantages. Economically, the cost of laying fiber is \$70,000 to \$100,000 a mile.<sup>9</sup> The cables can be cut inadvertently. The main drawback is that the cables are not good for many types of service, e.g., mobile traffic to ships, planes, or cars and trucks. Fiber optic is the preferred technology for high density, long-haul routes, e.g., New York to London or Los Angeles to Tokyo, but it will not connect every country to each other, which is one of the goals of the Communication Satellite Act of 1962. One will not see fiber optic cables replace satellites or satellites replace fiber optics. What we shall see is an integrated communications network where each technology will have its own niche.

### Finances

From a financial perspective, the communications satellite sector in the United States is quite lucrative. In 1992, for instance, it was estimated that \$1 billion went to commercial satellite manufacturers and \$1.7 billion was spent on ground equipment. Of course, the governmental sector still

predominates across the board when one looks at total space expenditures. In 1990, the U.S. space budget was \$30 billion, \$18 billion of which went to the Department of Defense and \$12 billion to NASA. By 1996 with the Cold War over, the total was only slightly less although one has to adjust for inflation. These figures are the totals for all programs and include various satellite communications systems. For instance, within the defense establishment, there are the Defense Satellite Communications System (DSCS) and the Military Strategic and Tactical Relay System (MILSTAR), and within NASA, there are the Advanced Communications Technology Satellite (ACTS) and the Tracking and Data Relay Satellite (TDRS). Strangely enough, NASA, which is a research agency, is in some sense a commercial actor because it has leased transponders on its TDRS satellites to TRW and Columbia Communications.

In terms of finances, the commercialization of communications satellites still meets a limit where government is involved either in providing its own satellites or in terms of being a dominant public customer for private communications satellite services.

### More Privatization? More Sharing?

The workings of the market and domestic, international and transnational lobbying and proceedings before courts and regulatory commissions had, by the mid-1990s, further broken down the exclusiveness of the Comsat/INTELSAT relationship. The past president of Comsat proposed privatization.<sup>10</sup> In the U.S., the Commission on Reinventing Government proposed in 1995 "(1) privatizing INTELSAT and INMARSAT and eliminating the privileges and immunities

and special access to spectrum and orbital slots currently enjoyed by those organizations and (2) eliminating Comsat's exclusive status as the sole U.S. investor and provider of INTELSAT and INMARSAT services...."<sup>11</sup> Further, the Federal Communications Commission is pushing increasing commercialization and privatization of satellite services not only within the United States and between the United States and other countries but in a "global, seamless network of services."<sup>12</sup> The FCC wants to encourage competition in a global market and this competition will replace regulation because it will more efficiently serve the public interest by lowering rates.

Last year at the Oslo colloquium of the IISL, Francis Lyall proposed that the public interest required that INTELSAT be treated as an international public utility.<sup>13</sup> Now "utilities are hybrid enterprises because they combine two universal features. First, they are regulated by their constituencies through public utility commissions or other forms of public sector input. In return for accepting regulation, they are given monopolies and are guaranteed a certain level of profit..."<sup>14</sup> Professor Lyall's suggestion would seem to relate to the public purpose of providing noncommercial services to remote areas. Insofar as this relates to current proposals for INTELSAT's restructuring, perhaps this feature, i.e., of an international public utility, would be preserved in INTELSAT, the IGO, while the profitable part of INTELSAT, INTELSAT, Inc. would be progressively privatized.<sup>15</sup> In essence the successful commercial parts of INTELSAT services will be turned over to the market place while the public purpose parts such as aiding less developed countries will be kept in a cutback operation called colloquially "Mother Intelsat."

This seems to be the path toward which we are heading although the details will not be known till 1997.

At the end of 1996, there is still much controversy over whether INTELSAT's privatization will lead to a competitive market or to a monopolistic or oligopolistic structure. PanAmSat, recently acquired by Hughes Electronics Corp., a unit of General Motors, has contended that if INTELSAT's privatization leads to only one firm being spun off this will mean that the market will be too concentrated.<sup>16</sup> INTELSAT favors one privatized affiliate but it is too early to tell how all of INTELSAT's 139 members will deal with this issue and related ones such as phasing out INTELSAT's diplomatic privileges and immunities and the 14(d) consultation process concerning technical and economic compatibility with INTELSAT as created by the 1971 treaty.

In a pure market, with no collective goods the government would set the rules and the private actors in the market would then decide on the best technology. However, governments and international organizations not only regulate carriers, as in the case of the FCC and the ITU vis-a-vis the frequency spectrum and orbital slots, they also subsidize particular actors and particular technologies. For instance, NASA is obligated under the 1958 National Aeronautics and Space Act to engage in the research and development of manufacturing processes which will aid U. S. industry. And, in most countries, government-owned Postal Telegraph and Telephone administrations (PTTs) have been the designated entities handling international communications. Some of these PTTs are being privatized, as is the case with Nippon Telephone & Telegraph (NTT) in Japan and

British Telecom (BT) in England, and, as this process continues in the coming years, we shall see more market-based commercialization. However, one can expect governments to be very interested in which companies win market contracts. Will they be private companies from the home country, or foreign-based firms? Only if and when transnational firms become truly global firms will the planet be set to ignore or transcend political boundaries.

### Conclusions

Satellite communications has partially fulfilled its promise - the promise of pioneering thinkers and dreamers such as Arthur C. Clarke, the promise of the Communications Satellite Act of 1962, and, it might be said, the promise of most of the world's states as set out in the Outer Space Treaty of 1967, in which it is stated that the "use of outer space...shall be carried out for the benefit and in the interest of all countries..." There are still promises to keep, e.g., Clarke's concerning the global village, but the technology is laying the infrastructure for bringing the world closer together. Sovereignty is still significant, but less so. There are still national economies competing with each other in protectionist and neo-mercantilist ways, but boundaries and corporate identifications are becoming more confused. The services provided by communications satellites such as mobile maritime, mobile aeronautical and hand-held global telephones point to a new world information order not created by governments alone, but by governments, markets and peoples. The commercialization of satellite communications satellites in a mixed political and economic environment has been a great success story. INTELSAT has been part of

that story. But it cannot rest on its laurels. After restructuring, INTELSAT will become just another actor in the market and not the single actor foreseen in the 1960s. Sharing benefits will be the outcome of market forces and government and international plans - not one or the other.

### ENDNOTES

1. "Communications Satellite Act of 1962," 76 STAT. 419.
2. Sec. 102 (a).
3. "Agreement Establishing Interim Arrangements for a Global Commercial Satellite System," 15 U.S.T. 1705, T.I.A.S. 5646. These interim arrangements were superseded by the Definitive Arrangements in 1971. See "Agreement Relating to the International Telecommunications Satellite Organization "INTELSAT," 28 U.S.T. 2248, T.I.A.S. No. 8542.
4. "Convention on the International Maritime Satellite Organization (INMARSAT)," 31 U.S.T. 1, T.I.A.S. 9605, 1976.
5. Convention and Operating Agreement of the European Telecommunications Satellite Organization (EUTELSAT), 1982.
6. Agreement of the Arab Corporation for Space Communications (ARABSAT), 1976.
7. Agreement on the Establishment of the "INTERSPUTNIK" International

- System and Organization of Space Communications, 1971.
8. Renee Saunders, "Comsat Prepares for Debut of Planet 1 Service," Space News, vol. 7, no. 34, September 2-8, 1996, p. 14. Also see Jeff Cole, "Mobile Communications, Armed with Funding, Seeks FCC License," The Wall Street Journal, September 16, 1996, p. B6.
  9. Jonathan F. Galloway, "Commercializing Outer Space," National Forum, vol. LXXII, no. 3 (Summer, 1992), 34-36.
  10. Bruce L. Crocket, statement in Hearing before the Subcommittee on Telecommunications and Finance of the Committee on Energy and Commerce, U. S. House of Representatives, "Future of Satellite-Based Services (Part 2)," 103rd Congress, 2nd Session, July 28, 1994, p. 112.
  11. Commission on Reinventing Government. "Creating a Federal Communications Commission for the Information Age," February 1, 1995. Appendix A, p. 2, Item 10.
  12. FCC, "In the Matter of Market Entry and Regulation of Foreign-Affiliated Entities," Report and order released November 30, 1995. II FCC Rcd. no. 7, 3873 (1996) at p. 3875.
  13. Francis Lyall, "Privatization and International Telecommunications Organization," Proceedings of the Thirty-Eighth Colloquium on the Law of Outer Space (Washington, D.C.: American Institute of Aeronautics and Astronautics, 1996), pp. 168-174. Lyall writes, "My own feeling, however, is that the best safeguard for the concept of a global system, serving the world without discrimination, would be for INTELSAT to continue, more or less as an international public utility, deemed to be owned by mankind, for the benefit of mankind, and irrespective of the technical legalities."
  14. Paul Hawken, The Ecology of Commerce: A Declaration of Sustainability, (New York: Harper Business, 1993), p. 191.
  15. See INTELSAT 2000 Working Party, "INTELSAT Future Structure, Executive Summary," February 16, 1996.
  16. Jeff Cole, "Intelsat's Privatization Beams in Rivals' Cries of Foul," The Wall Street Journal, October 17, 1996, p. B4.