IISL-95-IISL 3.04

AMERICAN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS

370 L'Enfant Promenade, S.W. Washington, D.C. 20024-2518 USA

RECENT DEVELOPMENTS AT INMARSAT

by Alan Auckenthaler, General Counsel International Mobile Satellite Organization London, United Kingdom

Abstract

After some background about the history, institutional structure, purposes, activities of Inmarsat, this paper discusses three recent developments that involve issues of public international law and the use of outer space: (1) creation of an affiliate through which to implement a global satellite personal communications system; (2) work in progress restructure the Inmarsat Organization itself, which will also deal with calls for improved access to the Inmarsat space segment; and (3) reconsideration of Inmarsat's policy for administering the requirement in its Convention that the Organization act exclusively for peaceful purposes.

Background About History, Institutional Structure, Purposes, and Activities

Inmarsat began in 1979 as the International *Maritime* Satellite Organization, established by States under the auspices of the Inter-Governmental Maritime Consultative Organization (now the International Maritime Organization) to provide the space segment for improving maritime communications, especially distress and safety services.¹

Inmarsat's competence has subsequently been expanded to include aeronautical² and land mobile communications,³ and our name was changed in 1994 to the International *Mobile* Satellite Organization, but we are still referred to as Inmarsat.

The Organization is a curious public/private hybrid.⁴ On the one hand, it is an inter-governmental organization, based on a Convention⁵ to which 79 States are now Parties. In addition to maritime distress and safety services.⁶ Inmarsat is expected to fulfill other public The Organization seeks to purposes. serve all areas where there is a need for mobile satellite communications services.⁷ with due regard to the interests of developing countries,8 and without discrimination on the basis of nationality.9 And Inmarsat has many of the privileges and immunities appropriate for an intergovernmental organization.¹⁰ other hand, Inmarsat operates on a commercial basis.11 Each Party has either signed the Operating Agreement¹² or designated another entity subject to its iurisdiction to do so.¹³ Based on investment shares (described below), Inmarsat is roughly 60% privately owned. It is these Signatories who finance and operate the system. Parties, in their

Copyright © 1995 by Alan Auckenthaler. Published by the American Institute of Aeronautics and Astronautics, Inc., with permission. Released to IAF/AIAA to publish in all forms.

capacity as such, do not subsidize the system or bear any of the associated risks and liabilities.¹⁴

However, governments do supervise and influence the activities of the Organization in several ways. Parties to the Convention, they appoint Signatories and each Party is expected to provide guidance and instruction to its Signatory to ensure that the Signatory fulfills its responsibilities; 15 and the Parties also participate in the Assembly, which meets periodically to review the activities of the Organization to ensure that they are consistent with the Convention and to express views and make recommendations. 16 In addition to these functions as Parties to Convention, governments also influence Inmarsat's activities through licensing of earth stations and regulation of service provision in their jurisdictions;¹⁷ through enforcement of applicable competition laws; and through participation in other inter-governmental organizations, like the International Telecommunication Union, which allocates the radio frequency spectrum and makes other applicable regulations.

Even the commercial aspects of the Organization are in some ways curious. The system is like a cooperative. Signatories finance the system in proportion to their investment shares, 18 which are determined based on their utilization. 19 They provide services in competition with each other, using space segment capacity obtained from the Organization at cost.²⁰ The Signatories, or groups of Signatories, with the largest investment shares, plus four geographical representatives elected by participate the Assembly, in the management of the system through representation on the Council,21 which differs from a typical corporate board of directors not only in terms of size and efficiency but also because voting is weighted according to investment shares²² and there is no applicable law imposing on Signatory representatives a fiduciary duty to take decisions based on what is best for the Organization as a whole, with the consequence that decision-making is complicated by the need to obtain the support of competing service providers with conflicting interests and a few larger Signatories can together make a blocking minority. While the Organization has legal personality,23 it differs from a corporation (or a limited company under English law) because Signatories have unlimited liability to contribute capital, in proportion to their investment shares, to enable Organization to satisfy its obligations to creditors.24

Inmarsat's service portfolio includes telephone, telex, facsimile, and data communications, which may be used for almost any conceivable application requiring communication while in motion or terminals that can be transported to locations where fixed facilities are not available. Such applications range from managing ship, airline, or road transport operations to coverage of remote news events by journalists and include, of course, maritime distress and safety, navigation, and air traffic control. Over 50,000 mobile earth stations have been commissioned to users. These mobile terminals range in size from Inmarsat-A, which may have an antenna with a diameter of about one meter gyrostabilized and mounted in a radome high on the superstructure of a ship, to Inmarsat-M, which now fits in a briefcase and will evolve to the size of a laptop Inmarsat's success computer. attributable to the cooperative efforts of Directorate staff, its Signatory investors, operators of the 35 land earth stations (some sites involving antennas for more than one ocean region and equipment for several Inmarsat services) that provide the feeder links to the space segment, 40 mobile terminal manufacturers, 50 systems integrators, 200 value-added service providers, 200 software developers, and 3,000 hardware and software dealers, together referred to as "the Inmarsat Partnership" (although not a partnership entity in the legal sense).

The Inmarsat-P Affiliate

addition to the internal competition referred to above, Inmarsat has faced competition from terrestrial radio services and regional satellite systems, but it has been the only global satellite system for mobile communications. That will change. Several consortia are proposing global systems for what are referred to as satellite personal communications services, involving user terminals comparable in size to today's cellular telephone handsets. Unlike the current Inmarsat system, which uses satellites in geosynchronous orbits approximately 40,000 km above the equator, these S-PCS systems will use satellites in low earth orbit or intermediate circular orbit. For examples, Motorola's Iridium system will use 66 operational satellites in LEO at an altitude of approximately 780 km; Loral/Qualcomm's Globalstar system will use 48 satellites in LEO at an altitude of 1,414 km; and TRW's Odyssey system will use 12 satellites in ICO (they call it middle earth orbit), deployed in three planes at an altitude of 5,600 nautical miles. These systems may be in operation by the year 2000. Incidentally, new systems raise complex regulatory issues that have been the subject of governmental consultations in

a colloquium format under the auspices of the ITU.²⁵

Inmarsat's long-term viability, and therefore the continuity of its public services, like maritime distress and safety services, will be in jeopardy if Inmarsat does not respond to changing consumer brought about by demands technologies like S-PCS. The response developed by Inmarsat during the past few years is an ICO system called Inmarsat-P. It will use 12 operational satellites deployed in two planes at an altitude of 10,350 km, and will have performance characteristics different from those of the Odyssey system. The cost of the Inmarsat-P system is expected to be nearly US\$3.0 billion. For several reasons, it was not possible for the Inmarsat Council to agree to implement system within the **Inmarsat** Organization. Some Signatories did not wish to be compelled to contribute capital in proportion to their Inmarsat investment shares for such an expensive project. A related problem was that it would not have been possible to raise any equity capital within Inmarsat from non-Signatories, whether strategic investors or by public offering. Many Signatories felt that the risks associated with the Inmarsat-P business were too great and that it would not be prudent to implement the business within Inmarsat because Signatories do not have limited liability, and because it would be desirable to insulate Inmarsat's core business from these risks. Most were also concerned that the Inmarsat Council could not manage the business with the efficiency and nimbleness necessary to react quickly to competition. It also became apparent that at least one Party (the United States, which was in the process of licensing Iridium, Globalstar, Odyssey, and others) wished to separate Inmarsat-P from Inmarsat so that there would be a "level

playing field" for all S-PCS competitors and no chance that Inmarsat-P would benefit from Inmarsat's privileges and immunities or be cross-subsidized by Inmarsat's other revenues. The Council decided in May 1994 to create a separate company, a private limited company to be registered under English national law, in which Inmarsat would invest no more than US\$150 million to purchase no more than 15% of the ordinary shares for cash (and would receive some other shares of a different class in exchange for the rights to the technology and other work done by Inmarsat to develop the project). Because Inmarsat would own no more than 15% of the new company, it would be an affiliate rather than a subsidiary, and came to be referred to as "the Affiliate." Signatories would contribute capital to Inmarsat, in proportion to their investment shares, to enable Inmarsat to purchase its shares, but the bulk of the equity capital would be subscribed by Signatories (or their subsidiaries) at levels of their choosing, and the board of the Affiliate would have discretion to bring in capital in the future from non-Signatories.

This Council decision raised a serious issue under public international May an inter-governmental organization create an affiliate under national law and transfer a business opportunity to that affiliate? This legal associated policy issue, and the ramifications, provoked the Parties to on the convening of extraordinary session of the Assembly²⁶ to consider whether the Council's decision was consistent with the Convention. The Council's timetable for creating involved issuance **Affiliate** Information Memorandum to Signatories as prospective investors in September 1994, investors notifying Inmarsat of their intentions to invest by 16 December 1994, and a meeting in January 1995 at which investors would enter into subscription agreements, followed immediately by a general meeting of the new shareholders to elect the board of directors, who would have to get on with the implementation of the business. This tight schedule was crucial if the Affiliate was to get the system to the market in the same time frame as competitors and not miss the window of opportunity. avoid impacting this schedule, the Assembly meeting was planned for 5-9 December 1994.

The Convention does not explicitly empower the Council to create subsidiaries or affiliates, and it can hardly be argued from the travaux préparatoires that the founding Parties intended to imply such a power. Nevertheless, the Assembly interpreted the Convention in a dynamic way to enable the Council to go forward with its plans. There are sound legal bases for such dynamic treaty interpretation. Because Inmarsat aims at broad universality of membership²⁷ and, indeed, the number of Parties has increased substantially since Organization was established (75 Parties at the time of the extraordinary Assembly meeting last year, compared to 54 States participating in the IMCO conference and 28 Parties when the Convention entered into force in 1979), even if it were possible to ascertain the intention of the founding Parties regarding affiliates, the Organization has taken on a life of its own and those early intentions should not override the political will of the current membership.²⁸ **Treaties** intergovernmental organizations have a character, constitutional and appropriate to apply more dynamic rules of interpretation to allow for the intrinsically evolutionary nature of a constitution.²⁹ International organizations have inherent powers (distinguished from implied powers) to perform whatever acts are appropriate to fulfilment of their purposes, and "the plenary organ can either itself perform the act or authorize another organ to do so, even if the act would be beyond the scope of the constitutional functions of that organ."30 approach This dynamic to treaty interpretation seems particularly justified because the satellite in this case. telecommunications business environment is itself dynamic, as demonstrated by the development of S-PCS technology and the emergence of competitors like Iridium, Globalstar, and Odyssey.

The effect of this dynamic approach to interpreting the Convention was only to remove any perceived legal impediment to approving the Council's decision. Before giving its go-ahead, the Assembly considered the policy implications.

One consideration was whether Inmarsat had a long-term future if S-PCS services were provided through the If not, how could Parties Affiliate. ensure the continuity of maritime distress and safety services and the fulfilment of Inmarsat's other public purposes? Inmarsat from protect destructive competition from the Affiliate, Council had planned to establish strong linkages between Inmarsat and the Affiliate. Inmarsat would appoint two of the 13 directors on the Affliate's board. Even after the Affiliate brings in equity capital from non-Signatories, it was intended that Inmarsat and its Signatories retain at least 70% ownership and nine of the 13 board seats, with the expectation that these directors, although subject to a fiduciary duty to take decisions in the interest of the Affiliate, would not disregard the impact of their decisions on Inmarsat and the Affiliate Inmarsat. would also consult on harmonized evolution of their respective services, and Inmarsat would be a wholesaler of some Inmarsat-P services using capacity on the Affiliate's space segment.

Another policy consideration was the level playing field. Would the linkages with Inmarsat give the Affiliate any unfair advantages over competitors? Because the Affiliate would be a limited company registered liability national law, it would not have any of the privileges and immunities of an intergovernmental organization. Accounting steps could be taken to ensure that there would not be any cross-subsidies flowing from Inmarsat to the Affiliate. In the sensitive area of allocation of radio frequency spectrum, where there is a perception that Inmarsat has some special standing or influence in the ITU, steps could be taken to ensure that the Affiliate's requirements were processed independently from Inmarsat.

After satisfying itself about these policy issues, the Assembly did approve the creation of the Affiliate, doing so by acclamation, in a remarkable show of support for the Council. For the Affiliate, more difficult technical and commercial challenges lie ahead, but it now has the possibility of addressing those challenges effectively, with the management efficiency and financing flexibility of a private company, like fully competitors.

Inmarsat voluntarily notified the creation of the Affiliate to the Directorate-General for Competition at the European Commission, requesting either a negative clearance or an exemption.³¹

The Federal Communications Commission in the United States is also examining the relationship between Inmarsat and the Affiliate, in response to claims by competitors that there is not adequate separation. In my view, these claims demonstrate what a former Commissioner at the FCC said 20 years ago: "Given a chance to do so most regulated firms prefer to compete with their lawyers rather than their salesmen."³²

Restructuring Inmarsat

Having created the Affiliate for the S-PCS business, the Council and the Assembly are now in the process of considering transforming Inmarsat itself, since the structure established in 1979 seems ill-suited to the current increasingly competitive environment. It is premature to predict the outcome of that process, but the following observations should provide some insight into the issues.

It is inconceivable that the Council would propose, or the Assembly allow, discontinuance of the maritime distress and safety services for which Inmarsat was originally established. Earlier this year, the Council reaffirmed its commitment to retain maritime distress and safety, navigation, and air traffic control services at the core of its future business.

Because of Inmarsat's special role and responsibility as the provider of these public services, full privatization of Inmarsat seems unlikely. Inmarsat will probably retain its treaty-based intergovernmental character, although it may be reasonable to expect the Assembly to limit its oversight to these public services and not any of the commercial aspects of Inmarsat's business. There are precedents for international public corporations, having many of the characteristics of incorporated companies but subject to treaties and either not registered under any national law or, if so registered, with

such national laws subordinated to the treaties.³³ It is possible to achieve limited liability for shareholders in international public corporations without registration under national law.³⁴

Perhaps the most difficult cluster of issues that the Council must resolve relates to the choice whether to continue operating as a cooperative with internal competition. Is this the most effective way to respond to the increasing external competition, or is there a more optimal way to deliver Inmarsat's services? Many Signatories have indicated their desire to eliminate the obligation to contribute capital in proportion to their utilization of the system, thus making investment voluntary. They want such investment to be in the form of tradeable shares. It is also generally recognized that governance could be made more effective and efficient if the Council were replaced by a smaller board of directors with fiduciary duties. However, if the Council chooses to continue operating as a cooperative, so that space segment capacity will be available to them at cost, what compensation schemes can be developed to attract voluntary investment and willing buyers for shares? And will investors in such a cooperative be willing to delegate governance to an independent, fiduciary board?

the issue European Commission³⁵ and many Inmarsat Parties expect the Council to deal with in the context of the restructuring process is improving access to the Inmarsat space segment for non-Signatories. There is some misperception about this issue. Access is not now limited only to Parties may license any Signatories. entities within their jurisdictions to operate land earth stations to provide services using the Inmarsat space segment.³⁶ While non-Signatories must pay for such access through Signatories³⁷ and the Signatories may apply mark-ups, it is within the prerogative of the Parties having regulatory jurisdiction over the Signatories to determine the reasonableness of those mark-ups. The only thing that is not possible now is for non-Signatories to participate in the management of the system in the Council.

Assuming arguendo that there were a real access problem, it is doubtful whether Inmarsat could be compelled to provide access to non-Signatories under applicable competition law. It is my understanding that the Commission's essential facilities doctrine³⁸ (analogous to the bottleneck facilities doctrine under United States antitrust law) has so far been applied only in cases of legal While the Inmarsat space monopoly. segment may, for a few more years, be the only global satellite system available for mobile communications, Inmarsat has had no legal monopoly precluding competitors from building their own Although the Inmarsat systems. Convention obliges Parties to notify the Organization if any company within their jurisdiction plans to use a separate space segment that might be technically incompatible with or cause significant economic harm to the Inmarsat system,³⁹ this notification process is limited to protecting Inmarsat's maritime purposes, only results in recommendations of a nonbinding nature, and has never had the effect of blocking any competing system.

In the process of considering Inmarsat's future structure, the Council has noted that proliferation of land earth stations adds to the overall costs of the Inmarsat system, thus making it more difficult for the Inmarsat system to be price competitive against other systems. Again, it is premature to predict how the Council will deal with this problem. At

least with respect to future services, a more optimized network architecture might involve a limited number of gateway earth stations accessible to all authorized service providers. It seems to me that such an architecture should be legally and politically acceptable to Parties, and to the Commission, 40 so long as, in any jurisdiction where the Party has a regulatory policy allowing Signatories to compete with Signatories, they may do so on an equal footing at the service provider level, even if they do not have a right to directly access the space segment with their own land earth Indeed, such an architecture should enhance competition, by enabling entry without the cost of investment in and operation of a dedicated land earth station.

To the extent that any restructuring requires changes to Inmarsat's constituent instruments, a way must be found to implement them quickly. After the Assembly adopts any amendments, they will not formally enter into force until they have been ratified by **Parties** two-thirds of the Signatories own two-thirds of the total investment shares.41 That ratification took four years for process aeronautical amendments and has been on-going for over six years with respect to the land mobile amendments. If it is not legally and politically feasible to avoid similar delays in implementation of restructuring, it is probably worthwhile to undertake the restructuring in the first place, but rather to resign ourselves to a scenario in which Inmarsat is beaten by the competition, cannot justify investment in further generations of space segment, and adopts a strategy of maximizing the revenues from sunk There is a legal way to investment. implement the changes pending ratification, by using the principle of provisional application reflected in the Vienna Convention on the Law of Treaties.42 However, several Inmarsat Parties have expressed uneasiness about using this principle in this context. Would it be practically impossible to undo a restructuring of the magnitude envisaged here if it were implemented provisionally and more than one-third of the Parties subsequently indicated that they did not intend to ratify the amendments? Would provisional application require consensus among all Parties, as has been the practice in the ITU? Would any dissenting Party have a opt out of provisional to application? I have my own views about these questions:⁴³ The Vienna Treaty Convention does not state that application provisional requires Moreover, that Convention consensus. applies "without prejudice to the relevant rules of the organization."44 The relevant Inmarsat rules are that the Assembly decisions by a two-thirds majority,45 and that reservations are not permitted.46 In these respects, ITU practice is distinguishable. For me. therefore, it seems logical and legally permissible that the Assembly could decide upon provisional application by a two-thirds majority and no Party could opt out. Dissenters could refuse to ratify the amendments and perhaps withdraw from the Organization but, for so long as they remained members, the amendments would apply provisionally to them as to all other Parties. Although not legally necessary by this way of thinking, it would be politically and practically prudent for the Assembly to decide on provisional application only if supported in the Assembly by Parties representing two-thirds of the investment shares, thus giving confidence that ratification would be forthcoming in due course and the changes would not have to be undone. Anyway, a debate about what is legally possible is not likely to be helpful, because Inmarsat Parties seem averse to imposing such radical changes over any dissent, and to want to use provisional application only by consensus. Nothing less may be acceptable to them politically.

Peaceful Purposes

There has been one other recent development at Inmarsat that will be of interest to international space lawyers. Inmarsat is required by its constituent instruments to act exclusively for peaceful purposes.⁴⁷ In the past, we interpreted this restriction to mean that a ship involved in armed conflict could not use the system except for distress and safety communications and other humanitarian purposes. We now interpret it to allow use by peace-keeping and peace-making forces acting under the auspices of the United Nations Security Council, even if engaged in armed conflict to accomplish their mission.48

End Notes

- 1. Doyle, "INMARSAT: The International Maritime Satellite Organization -- Origins and Structure," 5 JOURNAL OF SPACE LAW 45 (1977); Jasentuliyana, "The Establishment of an International Maritime Satellite System," ANNALS OF AIR AND SPACE LAW 323 (1977); Sondaal, "The Current Situation in the of Maritime Communication Satellites: 'INMARSAT," 8 JOURNAL OF SPACE LAW 9 (1980).
- 2. Von Noorden and Dann, "Space Communications to Aircraft: A New Development in International Space Law," 15 JOURNAL OF SPACE LAW 25 and 147 (1987).

- 3. Von Noorden and Dann, "Land Mobile Satellite Communications: A Further Development in International Space Law," 17 JOURNAL OF SPACE LAW 1 and 103 (1989).
- 4. Von Noorden and Dann, "Public and Private Enterprise in Satellite Telecommunications: The Example of Inmarsat," *Proceedings of the Twenty-Ninth Colloquium on the Law of Outer Space* 193 (1986)(an IISL colloquium).
- 5. The Convention on the International Maritime Satellite Organization (INMARSAT), 1143 United Nations Treaty Series 105, was adopted on 3 September 1976 and entered into force on 16 July 1979.
- 6. Preamble and Article 3(1) of the Convention.
- 7. Preamble and Article 3(2) of the Convention; Dann, "The INMARSAT System: Towards Full Global Coverage," 6 Space Communication and Broadcasting 195 (1988).
- 8. Article 13(1)(b) of the Convention; Von Noorden, "INMARSAT Program Assists Developing Countries." 6 AEU (Tokyo) 18 (1989); Von Noorden, "Mobile Satellite Communications: Applications for Developing Countries," presented to the Symposium on Space Commercialization, Roles of Developing Countries, in Nashville, Tennessee, on 5-10 March 1989, and available in the Technical Papers (A91-38976 16-12) of the American Institute of Aeronautics and Astronautics, Inc., in Washington, D.C. (1990) pages 282-295.
- 9. Preamble and Article 7(1) of the Convention.

- 10. Article 26 of the Convention; Headquarters Agreement between the International Maritime Satellite Organization and the Government of the United Kingdom of Great Britain and Northern Ireland, which entered into force on 25 February 1980; Protocol on the Privileges and **Immunities** of International Maritime Satellite Organization which (INMARSAT), entered into force on 30 July 1983.
- 11. Article 5(3) of the Convention.
- 12. The Operating Agreement on the International Maritime Satellite Organization (INMARSAT), 1143 United Nations Treaty Series 213, entered into force simultaneously with the Convention, pursuant to Article XVII(1) of the Operating Agreement.
- 13. Article 2(3) of the Convention.
- 14. Articles 4(c) and 22 of the Convention.
- 15. Article 4 of the Convention.
- 16. Article 12(1)(a) and (b) of the Convention.
- 17. Articles 7(3) and (4) of the Convention.
- 18. Article 5(1) and (2) of the Convention and Article III(1) of the Operating Agreement.
- 19. Article V of the Operating Agreement.
- 20. Article 19 of the Convention.
- 21. Article 13(1) of the Convention.
- 22. Article 14(2) and (3) of the Convention.

- 23. Article 25 of the Convention.
- 24. Article XI(1) of the Operating Agreement.
- 25. The general topic of the colloquium series is "The Changing Role of Government in an Era of Telecom Deregulation." The Third Colloquium, held on 9-11 November 1994 in Geneva, Switzerland, focused on "Global Mobile Personal Communications Systems." The Chairman of the Colloquium was David Leive. In addition to the Report of the Third Colloquium, there is a Briefing Report prepared by Michael Tyler, who was a consultant. Watch for a further ITU Policy Forum on regulation of global mobile personal communications systems in October 1996.
- 26. Article 10(2) of the Convention.
- 27. Article 32 (1) of the Convention.
- 28. Georg Schwarzenberger, International Law, Vol. III, at 26-27 (1976); E. Lauterpacht, Q.C., "The Development of the Law of International Organization by the Decisions of International Tribunals," IV EXTRAIT DU RECUEIL DES COURS (of The Hague Academy of International Law) 379, 458-459 (1976).
- 29. Jennings and Watt, eds., Oppenheim's International Law, in Vol. I at 1268 (9th ed., 1992); Malcolm N. Shaw, International Law at 586-587 (3rd ed., 1991)(referring to this approach as "programmatic interpretation"); D.W. Bowett, The Law of International Institutions at 338 (4th ed., 1982); Lauterpacht, supra note 28, at 416.
- 30. Seyersted, "International Personality of Intergovernmental Organizations: Do Their Capacities

- Really Depend Upon Their Constitutions?," 4 INDIAN JOURNAL OF INTERNATIONAL LAW 1 (1964)(quote at 24 but see also 19-26, 40, and 54 about the distinction between inherent and implied powers, and the author's view at 4 that it is an impossible task to deduce implied powers from treaties or their travaux préparatoires without resorting to fictions that do not conform to past or present practice and would be unacceptable barriers to future practice). Regarding the "appropriateness" standard for inherent powers, see Article 15(j) of Convention.
- 31. A publication in the Official Journal of the European Communities, summarizing the notification and indicating the Commission's preliminary views, is imminent.
- 32. Regulatory Policies Concerning Resale and Shared Use of Common Carrier Services and Facilities, 60 FCC 2d 261 (1976), Statement of Commissioner Glen O. Robinson Concurring in Part and Dissenting in Part, at 339.
- 33. Goldman, "The Law of International Companies," 90 JOURNAL DU DROIT INTERNATIONAL 321 (1963).
- 34. Amerasinghe, "Liability to Third Parties of Member States of International Organizations: Practice, Principle and Judicial Precedent," 85 THE AMERICAN JOURNAL OF INTERNATIONAL LAW 259 (1991).
- 35. Commission Directive 94/46/EC of 13 October 1994, Official Journal of the European Communities N° L 268, 19 October 1994, page 15.
- 36. Article 7(3) of the Convention.

- 37. Article VII(1) of the Operating Agreement.
- 38. Glasl, "Essential Facilities Doctrine in EC Anti-trust Law: A Contribution to the Current Debate," 6 EUROPEAN COMPETITION LAW REVIEW 306 (1994).
- 39. Article 8 of the Convention.
- 40. Green Paper on the Liberalisation of Telecomunications Infrastructure and Cable Television Networks, 25 January 1995, Part II, pages v, 62, 65, and 68-69.
- 41. Article 34(2) of the Convention and Article XVIII(2) of the Operating Agreement.
- 42. Article 25 of the Vienna Convention on the Law of Treaties.
- 43. The part about what is legally possible, but not the part about what is likely to be politically acceptable to Inmarsat Parties, is based on advice from Shabtai Rosenne.
- 44. Article 5 of the Vienna Convention on the Law of Treaties.
- 45. Article 11(2) of the Convention.
- 46. Article 32(5) of the Convention.
- 47. Article 3(3) of the Convention.
- 48. Von Noorden, "Inmarsat Use by Armed Forces: A Question of Treaty Interpretation," 23 JOURNAL OF SPACE LAW 1 (1995).