NASA AND THE PRACTICE OF SPACE LAW

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NASA and Space Law

Since the primary mission of the National Aeronautics and Space Administration is the exploration and use of space to achieve the national objectives established by the President and Congress, it is logical to assume that if there is a unique branch of law that can be labeled "space law," NASA lawyers would primarily engage in the practice of "space law."

Are these assumptions correct? Is there a unique branch of law than can be labeled "space law?" Do NASA lawyers practice space law, and if so, how much and in what way?

It is quite clear that since the launch of Sputnik some 28 years ago, the establishment of NASA in October 1958,[1] and the creation by the United Nations in 1959 of a Standing Committee on the Peaceful Uses of Outer Space,[2] there has indeed developed a large body of international law governing space activities - a body of law as substantive as air law or the law of the sea.[3]

Treaties Relevant to Space Activities

In order to gain an appreciation of the magnitude of space law, it will be useful to list a few of the treaties, conventions, agreements and regulations which directly relate to space activities. Among them are the Limited Nuclear Test Ban Treaty of 1963,[4] which barred nuclear explosions in the atmosphere and in space; the 1967 Outer Space Treaty;[5] the Treaty for the Prohibition of

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[1]National Aeronautics and Space Act of 1958, 42 U.S.C. §§ 2451-84 (1982).

[2]Paragraph 1(d) of the General Assembly resolution of 13 December 1958, adopted at its 792nd plenary meeting, reads as follows: "[t]he General Assembly . . . 1. Establishes an Ad Hoc Committee on the Peaceful Uses of Outer Space . . . and requests it to report to the General Assembly at its fourteenth session on the following . . . (d) The nature of legal problems which may arise in the carrying out of programs to explore outer space . . ." A/RES/1348 (xiii).

[3]*See* Convention on the Law of the Sea, U.N. Doc. A/Conf. 62/L.78 (1981).

[4]The Limited Nuclear Test Ban Treaty of 1963, was *opened for signature* on August 5, 1963, and *entered into force* October 10, 1963 [1963] 14 U.S.T. 1313, T.I.A.S. 5433, 480 U.N.T.S. 43.

[5]The Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, was *signed* on January 27, 1967, and *entered into force* October 10, 1967, [1967] 18 U.S.T. 2410,

Nuclear Weapons in Latin America;[6] the Astronaut Rescue and Return Agreement of 1968;[7] the Liability Convention of 1972;[8] the Biological and Toxic Weapon Convention of 1972;[9] the Anti-Ballistic Missile Treaty between the United States and the Soviet Union;[10] the Registration Convention of 1974;[11] the ITU Convention and its Radio Regulations;[12] the INTELSAT Agreement[13] which provides international satellite telecommunications for some 140 nations, and its Eastern-bloc counterpart, the Intersputnik Agreement;[14] the U.S. and European Space Agency (ESA) Agreement[15] which provided for the building of a Spacelab that has already flown on a previous Space Shuttle mission, and its Eastern-bloc counterpart, the Intercosmos Agreement;[16] the INMAR-

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T.I.A.S. 6347, 610 U.N.T.S. 205.

[6]The Treaty for the Prohibition of Nuclear Weapons in Latin America, was *opened for signature* on February 14, 1967, and *entered into force* December 11, 1969, 22 U.S.T. 762, T.I.A.S. 7137, 634 U.N.T.S. 281.

[7]The Agreement on the Rescue of Astronauts, the Return of Astronauts, and the Return of Objects Launched into Outer Space, was *signed* on April 22, 1968, and *entered into force* December 3, 1968, [1968] 19 U.S.T. 7570, T.I.A.S. 6599, 672 U.N.T.S. 119.

[8]The Convention on International Liability for Damage Caused by Space Objects, was *signed* on March 29, 1972, and *entered into force* October 9, 1973, [1973] 24 U.S.T. 2389, T.I.A.S. 7762.

[9]The Biological and Toxic Weapon Convention of 1972, was *signed* on April 10, 1972, and *entered into force* March 26, 1975, [1975] 26 U.S.T. 583, T.I.A.S. 8062.

[10]The Treaty on the Limitation of Antiballistic Missile Systems, was *signed* on May 26, 1972, and *entered into force* October 3, 1972, [1972] 23 U.S.T. 3435, T.I.A.S. 7503.

[11]The Convention on the Registration of Objects Launched into Outer Space, was *opened for signature* on January 15, 1975, and *entered into force with respect to the United States*, December 3, 1978 [1978] 28 U.S.T. 695, T.I.A.S. 8480 (*effective* September 15, 1976).

[12]The International Telecommunication Convention of 1973, was *signed* on October 25, 1973, and *entered into force with respect to the United States*, April 7, 1976, [1976] 28 U.S.T. 2495, T.I.A.S. 8572.

[13]The International Telecommunications Satellite Organization Agreement, was *opened for signature* on August 20. 1971, and *entered into force* February 12, 1973, [1973] 23 U.S.T. 3813, T.I.A.S. 7532.

[14]The International System and Organization of Space Communications Agreement, was *opened for signature* on November 15, 1971, and *entered into force* July 12, 1972, 862 U.N.T.S. 3.

[15]The U.S. and European Space Agency Agreement, was *signed* on August 14, 1973, and *entered into force* August 14, 1973, [1973] 24 U.S.T. 2049, T.I.A.S. 7722.

[16]The agreement on Co-operation in the Exploration and Use of Outer Space for

SAT Agreement,[17] which is similar to INTELSAT but deals primarily in maritime communications; and finally, the Moon Agreement of 1979.[18]

Domestic Laws and Regulations Governing Space Activities

There exists a similar body of U.S. domestic law and federal regulations which govern space activities. What follows is perhaps not an exhaustive list but the list is bound to grow in the next few years if the multitude of Congressional bills dealing with space activities, particularly as they affect non-governmental activities in space, are enacted.

The 1958 NASAct, which established NASA, is the major federal statute governing space law and policy.[19] In recent years, the number of regulations affecting the private sector and the public have increased significantly. These include, for example, the shuttle pricing policy regulations which govern the price NASA will charge commercial users of the Space Shuttle.[20] Also included are the very recent regulations relating to flying citizens in space.[21] Additionally, there are regulations which govern the command and control procedure on Shuttle flights,[22] and the indemnification of Shuttle users against third-party liability,[23] to mention but a few.

Congress, on NASA's recommendation, passed patents and customs legislation[24] which will facilitate U.S. commercial launch activity and increase the ability of the U.S. to compete against foreign launch services. The Federal Aviation Administration (FAA) has had a long standing regulation governing the launch of privately owned rockets and missiles through controlled air space[25] and the United States probably issued the first private license to do so. The

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Peaceful Purposes (INTERCOSMOS) was *opened for signature* on July 13, 1976, and *entered into force* May 24, 1977, [1977] 28 U.S.T. 7624, T.I.A.S. 8732.

[17]The Convention on the International Maritime Satellite Organization, was *opened for signature* on September 3, 1976, and *entered into force* July 16, 1979, [1979] 31 U.S.T. 1, T.I.A.S. 9605.

[18]Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, U.N. GAOR, 34th Sess., Supp. H. No. 20 (Doc. A/34/20).

[19]*See supra* note 1.

[20]14 C.F.R. § 1214.1 (1984).

[21]14 C.F.R. § 1214.17 (1984).

[22]14 C.F.R. § 1214.7 (1984).

[23]42 U.S.C. § 2458(b) (1982).

[24]42 U.S.C. § 2457(k) (1982); Pub. L. No. 97-446, § 116 (duty free entry of items returned from space). *See* 14 C.F.R. 1214.1502 (1984).

[25]14 C.F.R. §§ 101.21-.25 (1984).

federal Communications Commission (FCC) controls the allocation of space frequencies and regulates the assignment and allocation of the geostationary orbit. The Department of State, through its Munitions Control Board, has asserted jurisdiction over commercial space launches, deeming them to be an "export."[26] In addition, Title 18 of the U.S. Code has been amended to extend the extraterritorial jurisdiction of federal criminal laws to space vehicles in outer space.

In response to the launching of Sputnik, Congress enacted the NASAct which granted to NASA broad authority to enter into those transactions which were deemed necessary for the implementation of the policies voiced in that Act. The relevant provision has been interpreted by a Court of Appeals case[27] in which the Court said that, in response to the launch of the Soviet Sputnik, Congress did in fact give NASA broad authority.[28]

In recent years, NASA has used this authority in confronting and resolving the problems associated with the development of a reusable launch capability and space commercialization.

NASA's Legal Work

NASA has a legal staff of approximately eighty lawyers, 22,000 civil servants, hundreds of thousands of acres of real estate at ten locations across the United States and spends approximately eighty-five percent of its budget of over seven billion dollars for the procurement of goods and services from the private sector.

NASA is a mission agency whose business is research and development in aeronautics and space, and since the mid-sixties has also been providing launch services for satellite communications organizations, private corporations, international organizations and foreign governments. Therefore, in our NASA practice of law, we are not unlike an in-house corporate counsel whose corporation is in a specialized field of endeavor.

As corporate counsel for a drug company, one worries about personnel problems, real estate problems, labor relation problems, tort liability problems, contract matters, litigation and in particular, the food and drug laws that are of special interest to the company. NASA lawyers do much the same with their special interest being in international and municipal laws that affect the NASA space mission. For example, NASA has worked very closely with the insurance community both in this country and abroad in negotiating the first Space Shuttle liability policy.[29] which incidentally contained some new space law as-

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[26]14 C.F.R. § 121.19 (1984).

[27]1858, American Federation of Government Employees v. Webb, 580 F.2d 496, 501 (1978).

[28]42 U.S.C. 2473(c)(5) (1982).

[29]The first Space Shuttle liability policy was negotiated with Lloyds of London to cover Satellite Business Systems, a partnership then composed of COMSAT, IBM and

pects. First, it was necessary to determine the nature of the legal obligations of the insurer to the insured. In most insurance policies it is provided that the insured will be paid that amount which the insurer is *legally obligated* to pay.[30] But the applicable Liability Convention does not provide for binding awards but rather provides for a recommendatory award. Thus, it was necessary to resolve the question of whether if the award is recommendatory, as provided under the Liability Convention, the insurer is in fact legally obligated to compensate the insured.[31] In addition, since the insurance provided under the Space Shuttle liability policy was intended to protect U. S. citizens and given the government's role in the Space Shuttle program, it is necessary to determine the potential restrictions placed on a citizen's recovery under the Federal Tort Claims Act. To that end, a provision was inserted in the Space Shuttle liability policy which prevents insurance companies from asserting the defense of sovereign immunity without the express authority of the Department of Justice.[32]

As a further example of the NASA practice of space law, NASA lawyers have, since the establishment of the U.N. Committee on the Peaceful Uses of Outer Space, played a significant role in the debate and negotiations that have taken place in the Committee. NASA legal counsel have, since the establishment of the Committee in 1957, served as members of the U.S. delegation and have served as heads of the delegation on several occasions.

Trend Toward Privitization

In terms of the future prospects of commercializing the space shuttle transportation system, it should be noted that NASA's history contains several examples of where, after completing research and development of a given technology, it has spun off the technology to another agency to operate. For instance, NASA developed remote sensing satellites and in 1983 turned over control to NOAA. Additionally, there is presently legislation to spin it off from NOAA to the private sector.[33] NASA has also been in the process of trying to commercialize the current government launch technology and Congress has now enacted legislation on it.[34] If history is a guide to the future, some say the

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the Aetna Insurance Company. *Editor's note*: a copy of the policy was not available.

[30]*See, e.g., Aerospace and Comprehensive General Liability Insurance Policy, Ltd.*, between Satellite Business Systems and J.H. Minet & Co., underwriters (November 19, 1979).

[31]Liability Convention of 1973, *supra* note 8, art. 19, para. 2.

[32]"Insurers shall not assert a defense of sovereign immunity without the prior consent of the United States."

[33]Land Remote Sensing Commercialization Act of 1984, Pub. L. No. 98-365, 98 Stat. 451 (1984).

[34]Commercial Space Launch Act of 1984, Pub. L. No. 98-575, 98 Stat. 3054 (1984).

chances are that if the shuttle can be a profitable operation, private industry will take over its operation.

Occasionally, interesting questions may arise which involve some aspect of space law. When Skylab was coming down, for example, some public spirited citizen filed suit in a district court in Cleveland, Ohio, to enjoin the return of Skylab,[35] thus apparently trying to change the law of physics as well as the common law and statute law as we know it.

And, the more amusing instance relates to a reporter who not long ago raised the hypothetical question of whether NASA could quarantine ET, and the answer was where did ET land? If he had landed at a NASA facility, there would have been quarantine regulations going back to Apollo days to apply, but if he landed some place out in the country, NASA would have no authority to quarantine ET. Next, the reporter thought of the Agriculture Department, the Public Health Service and the immigration authorities because they appeared to have all sorts of authority. So he inquired at the Agriculture Department, but was told that unless it was an animal, vegetable or mineral, they had no jurisdiction. If it had any intellect at all, they had nothing to do with it. He then talked to the Public Health Service and found out that they had quarantine authority, but only if ET had a specific disease that was listed in the Presidential executive order.[36] Regarding any other disease which was not on that executive order, they had no jurisdiction. As a last resort, the reporter called the Immigration Service but allegedly they would not talk to him.

Conclusion

As commercial space activities increase, corporate and private counsel will find themselves in the active practice of what is to be a very substantial body of space law and participating in meetings and symposia on international space law. The public has also become aware that there is something called space law largely as a result of the re-entry over Canada of the Soviet Cosmos 952 and the later re-entry of the U.S. Skylab. But as space activities become more commercialized it will be necessary for private enterprise to feed into government more information about their activities to assure that international treaties are not developed that will in any way interfere with the development of a strong, viable and profitable commercial space business.

The time has not yet arrived, however, where lawyers will make money out of the full-time practice of space law, but a knowledge of it today is essential if one represents an insurance broker or an underwriter insuring communication satellite companies or a communication company either in the negotiation of a launch services agreement, or in a proceeding for the allocation of frequencies or of an orbital slot. Such knowledge is also indispensible for those who represent companies that are expecting to enter the commercial space launch

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[35]Herrick v. NASA, slip op. no. C-79-1017 (N.D. Ohio May 18, 1979).

[36]Exec. Order No. 12,452, 48 Fed. Reg. 56,927 (1983).

business or the industry of materials processing in space, which is in an experimental and formative but very promising stage of development. Finally, such knowledge is indispensible for those who envision other commercial ventures in space.