A STUDY OF AEROSPACE LEGISLATION OF CHINA

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In the past several decades, China has been continuously strengthening and improving its law system. On March 15, 2007, the third session of the ninth National People's Congress (NPC) passed "the Legislation Law" marking the beginning of a more improved and more matured period of China's legislation. In recent years China's space activities have developed rapidly and made astonishing achievements. On October 15, 2003, the manned Shenzhou-5 (SZ-5) was launched successfully, turning into reality a thousand-year old Chinese dream to fly into space. In 2007, China will launch the "Chang'e 1 exploration satellite to realize the dream of Chang'e to fly to the moon. In the course of its development, China's space technology needs the protection of laws, and further study of aerospace legislation laws.

I. THE MANAGEMENT SYSTEM OF THE AEROSPACE ACTIVITIES OF CHINA

The management of the China's space activities relies mainly on the country's relevant policies, the State Council's resolutions and orders, and a large amount of internal managerial regulations of the departments in charge of aviation. The former Ministry of Astronautics Industry had over 300 regulations for internal management. They are mainly the regulations for management of various areas, such as planning, technology, quality, security and finance. In 1998, the State Council established a new Commission of Science Technology and Industry for National Defense (COSTIND) (China National Space Administration (CNSA)) as the top organization of China's aviation industry. COSTIND has at different times made regula-

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tions such as "the Method for Managing Space Objects Registration", and "the Method for Managing Temporary License of Civil Space Launch Projects". Until now, The NPC and the State Council have not laid down any specific laws, nor rules on the management of space activities. This is not comparable to our needs to develop space activities at high speed.

II. CHINA NEEDS AEROSPACE LEGISLATION

China's aerospace legislation has long been emphasized by the State overseeing authorities and experts in the fields. In 1986, to accelerate the development of the aviation industry, the Ministry of Aerospace Industry submitted its seventh five-year legislation plan to the State Council, suggesting making provisions on vitalizing aviation industry.

In 1993, on the eighth NPC, the Shanghai delegation signed unanimously and submitted to the Congress a bill for legislating China's aerospace law. In the bill, it was pointed out that China's aerospace technology develops rapidly, and has entered an international market of launching service. In order to solve the new problems encountered in developing aerospace technology in the new situation, the bill suggests that China develop its aerospace law as early as possible.

In 1996 and again in 1997, Professor Qizhi He, the well known Chinese space law expert and a legal consultant of the Department of Foreign Affairs, wrote letters to the Administrator of the CNSA suggesting China make aerospace law as soon as possible to regulate the management of domestic companies engaging in aerospace activities.

In 1997, on the 15th National Chinese Communist Party's Congress (NCCPC), the president of China Academy of Aerospace Technology Research proposed that China should develop aerospace law so as to safeguard outer space resources and maintain the country's interests; to protect aviation properties and promote the development of space enterprise; and to protect the talented people in aviation industry and guarantee there are successors.

On November 17, 1998, at COSTIND legislation strategy symposium, Enjie Luan, the Vice Minister of COSTIND and the

Administrator of CNSA, emphasized the urgency and necessity of a State aerospace legislation. He hoped to enact China's aerospace law as early as possible.

On the fifth session of the tenth NPC in March 2007, through seminars, private consultations and research, many a NPC representatives drafted the "Proposal on Speeding up the Legislation of China's Aerospace Activities", suggesting a speed-up in China's aerospace legislation.

From the managerial point of view for aerospace activities, the Chinese economic system has transformed from a planned economy to a socialist market economy. It is no longer adequate for China to rely solely on the regulations and the management of the government's administrative means in carrying out certain important aerospace activities. In order to smooth the management relations and improve the development of aerospace activities, China needs the regulation of a State's law.

China has acceded to four international aerospace treaties passed by the United Nations' General Assembly and has taken international responsibilities and duties accordingly. The related provisions of these international treaties should be reflected in China's laws so that government organizations, legal persons and natural persons who are engaged in aerospace activities can understand and obey these regulations.

From the point of view of aerospace legislation, whether comparing China's aerospace legislation to that of the major countries in the world, or comparing China's aerospace legislation to the development of China's aerospace technology, China needs to bring about the aerospace legislation as early as possible.

III. RESEARCH ON CHINA'S AEROSPACE LEGISLATION

The organizations in charge of aerospace legislation in China and the related institutions, as well as the experts, have carried out beneficial investigations in China's aerospace legislation, and have taken on research work in various areas.

1. The Aerospace Corporation Has Set Up an Investigative Group for Aerospace Law Legislation In 1993, on the eighth NCP, the Shanghai Delegation submitted a pro-

posal to legislate the aerospace law. When the Ministry of Aviation and Aerospace (CNSA) was preparing the bill, an investigative group for the aerospace law legislation was established. They consulted the Shanghai NPC standing committee for specific comments on aerospace legislation, collected and translated aerospace laws of U.S., Russia, Ukraine and others. They consulted the NPC's Commission of Law Enforcement and the Bureau of Laws and Regulations of the State Council for opinions on legislating a State aerospace law. They also carried out research on the framework of aerospace law and at the same time conducted a research study on "The Aerospace Law Legislation of China".

2. In 1998, after the new COSTIND was established, it became the organization in charge of the State aerospace activities. COSTIND laid a great importance on the study of the aerospace legislation. Every year there were research studies related to issues of aerospace legislation. Among the studies, two important research projects were accomplished by entrusted institutions. In 2001, "A Study on the Legislation Structure of China's Aerospace Law" was finished. The study laid out the framework for China's aerospace legislation system and also the substance for its composing parts. In 2003, "A Comparative Study on Aerospace Laws of World Powers" was finished. Through this comparative study, suggestions for China's aerospace legislation were made as reference. Included were the major contents of China's aerospace law and the acceleration of the legislation. The accomplishment of these two important projects has laid a good foundation for State aerospace legislation.

3. Begin the Study of "The People's Republic of China Management Regulations of Aerospace Activities". In recent years, on top of its regular work and its related research tasks, COSTIND started studies on "The P. R. C. Management Regulations of Aerospace Activities". It focuses on the provisions that should be included in the management regulations of the aerospace activities.

IV. AN OUTLOOK ON CHINA'S AEROSPACE LEGISLATION

1. China Has the Conditions Necessary for Aerospace Legislation.

In addition to the need for aerospace activities management, our country's aerospace legislation has a relatively a good foundation in terms of technical conditions in aerospace legislation.

a. China's aerospace activities have taken place on a considerable scale. The development of its aerospace science and technology maintain a high speed and stability. After decades of hard work, Chinese aerospace activities have made remarkable achievements in the world and are of considerable scale. There are a large number of internal managerial regulations and rules, which put down a good foundation for China's aerospace legislation.

b. The international treaties joined by China, and the bilateral and multilateral agreements on aerospace activities signed by the Chinese government with many countries regulate the rights and responsibilities in carrying out space activities. They also provide some important contents for the legislation of China's aerospace activities.

c. China's experience in aerospace legislation and years of research studies on aerospace legislation, especially the study organized by COSTIND in recent years, have created a favorable condition for its aerospace legislation.

2. Establishing a System in China Aerospace Legislation

According to China's legislation rules and regulations, the Chinese aerospace law system should take a comprehensive aerospace law as its basis, supplemented with other related laws, administrative rules and institutional regulations to form a more complete aerospace law system. According to differentiated administrative duties and needs of the State, government and responsible institutions, corresponding laws, administrative rules or regulations should be made respectively. Currently,

China should continuously modify, enrich and improve the making of the regulations. At the same time, China should be actively engaged in the making of administrative rules and the study of legislating the aerospace law.

3. The Management Regulations of Aerospace Activities Are in Hope to Come Out Early.

In both procedure and the degree of difficulty, making administrative rules is much faster than legislating a set of laws. We are still in the period of reform, and a considerable amount of laws pertaining to the country's policies and its people's lives need legislation or modification urgently. If putting aerospace legislation on the NPC legislation agenda requires a long period of time, then making administrative rules and regulations first will be the faster alternative. Thus, we will not only fill in a blank in China's legislation, but will also lay down a foundation for legislating the aerospace law. COSTIND is working on "The People's Republic of China Aerospace Activities Regulations". It will soon come into being.

4. Legislating China's Aerospace Law is the Developing Trend.

The rapid development of China's space technology and the daily improvement of China's legal system will certainly bring forward the development of China's aerospace legislation. On basis of the existing administrative regulations and established administrative rules regarding aerospace activities, plus the achievements of many years of studies in aerospace legislation, an aerospace law of China is no longer a distant dream but a reality in the near future.

CASE NOTE

CORPORATE-SOVEREIGN SYMBIOSIS: *WILSON v. IMAGESAT INTERNATIONAL*, SHAREHOLDERS' ACTIONS, AND THE DUALISTIC NATURE OF STATE-OWNED CORPORATIONS

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INTRODUCTION

It has long been established in corporate law that directors owe a duty of loyalty to an entity's shareholders[1] and that a corporation must honor the terms of its authorized commitments.[2] It is also well-recognized that a Nation-State may, in certain situations, exert influence over what and to whom an entity may sell.[3] It is considerably less common, however, to discover a case in which all three of these principles converge.

In the case of *Wilson v. ImageSat International N.V.*,[4] a dispute currently pending in the United States District Court for the Southern District of New York, the plaintiffs—minority shareholders and holders of ImageSat stock options—allege a variety of grievances against the company, its principal

[1] *See* Williams v. 5300 Columbia Pike Corp., 891 F. Supp. 1169, 1183 n.30 (E.D. Va. 1995).

[2] *See* Genesco Entertainment v. Koch, 593 F. Supp. 743, 748 (S.D.N.Y. 1984).

[3] *See* United States v. Bozarov, 974 F.2d 1037, 1038 (9th Cir. 1992).

[4] 2007cv6176 (S.D.N.Y. 2007).

shareholders, and several other affiliated individuals. While the case will likely be without resolution for some time, the complaint highlights a number of issues relevant to corporations in general, and to those engaged in the development and sale of militarily-sensitive technology in particular. Many of these issues invoke well-established principles of corporate law that need no further discussion, but the case does raise some novel and important questions. What are the fiduciary responsibilities of a State-owned entity? Can a State-owned firm ever be immune from suit? When a Nation-State seeks to further its political objectives through a corporate form, to what extent can it incur liability? Given the proliferation of State-supported entities in the technology and defense industries, these questions merit discussion.

IMAGESAT INTERNATIONAL AT A GLANCE

The purpose of ImageSat International according to its mission statement is to provide its customers in the national security sector with "the benefits of a domestic, high-resolution imaging capability, including complete autonomy, exclusivity, and confidentiality, while minimizing the cost and risk associated with the development of a national space imaging program."[5] Said another way, ImageSat seeks to provide its clients with "high-resolution imaging services from [ImageSat's] satellites, as if they are operating their own national sensors."[6] For a fee, a nation's civilian or military program can acquire the use of two highly-sophisticated reconnaissance satellites which ordinarily would have been beyond their ability to develop or employ.[7]

Putting this business model into practice, ImageSat's main method of generating revenue comes from entering into Satellite Operating Partner (SOP) agreements with its government cli-

[5] ImageSat International Mission, http://imagesatintl.com/default.asp?catid={471BB0D0-DD1C-4BD8-A609-C2A23A7DC251} (last visited Oct. 13, 2007).

[6] ImageSat International History, http://imagesatintl.com/default.asp?catid={F4E1341A-1E2C-4684-BDB1-291FC83F557C} (last visited Oct. 13, 2007).

[7] ImageSat International SOP Program, http://imagesatintl.com/default.asp?catid={C430687B-FB8B-4CCC-B3B9-EDC528B0D044} (last visited Oct. 13, 2007).

ents.[8] ImageSat trains and equips the employees of its client States to operate ImageSat's satellites, and whenever one of them passes over that client's respective portion of the globe, local ground operators exercise exclusive and autonomous control over what it views.[9] Because of its internationally-focused business system, ImageSat does not monitor or report what its clients see, and no SOP can preempt the operations of another.[10] Exclusivity, autonomy, secrecy, and flexibility are premium services ImageSat proudly offers.[11]

THE HISTORY AND ORGANIZATIONAL STRUCTURE OF IMAGESAT

Before delving into the intricacies presented in *Wilson v. ImageSat International N.V.*, a review of the history of the firm and the relationship it maintains with its principal shareholders is in order.[12] Following the collapse of the former Soviet Union and the global proliferation of military satellite technology in the early 1990s, the United States Congress authorized the commercialization of high-resolution satellite imaging in hopes of creating a market based upon the technology's civilian applications.[13] While this was unfolding, Israel launched *Ofeq 3*, a high-resolution reconnaissance satellite designed to deliver state-of-the-art real-time imagery.[14]

In May of 1994, Stephen Wilson—the lead plaintiff in the case—proposed to Israel Aircraft Industries (later Israel Aerospace Industries, or IAI) the creation of a new company that would compete in the recently-developed civilian satellite market.[15] IAI, a corporation owned entirely by the Israeli govern-

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[8] According to the plaintiffs' complaint, over 90% of the company's revenue has been generated through the SOP program. Wilson v. ImageSat International N.V., Complaint, ¶ 58 (July 2, 2007) [hereinafter Complaint].

[9] *See supra* note 7.

[10] *Id.*

[11] *Id.*

[12] This information comes largely from the complaint filed on July 2, 2007 in the U.S. District Court for the Southern District of New York. As such, it may contain inaccuracies which cannot be independently discovered.

[13] *See* Land Remote Sensing Policy Act of 1992, 15 U.S.C. § 5601 (1992).

[14] *See supra* note 6.

[15] Complaint, *supra* note 8, at ¶ 58. IAI was one of the chief developers of the Ofeq satellite program. *Id.* at ¶ 61.

ment,[16] and Core Software Technology, a U.S.-based firm, joined forces to establish the entity that would one day become ImageSat.[17] Under the terms of ImageSat's formation, neither of the originating firms nor their successors could ever own more than 50% of the company, or it would be subject to the regulatory regimes of the United States and Israel.[18] Given the type of service the company sought to offer, it was essential that it be "multinational rather than centered in any one country, but explicitly not in the United States or Israel" because of the perception that affiliating with either country would harm the company's ability to offer autonomous, confidential, and exclusive satellite access.[19] After incorporating in the Cayman Islands as West Indian Space in 1997, the company relocated its corporate domicile to the Netherlands Antilles in June of 2000, adopting the current name of ImageSat International N.V.[20]

In response to the demands of Elbit Systems Ltd. (formerly known as ElOP), a privately held Israeli defense company which manufactured the *Ofeq* satellites' electro-optical imaging payload, the Israel Ministry of Defense (IMOD) directed IAI to share its 50% ownership stake such that it was left controlling 37.5% of ImageSat's stock while ElOP gained a 12.5% interest in the company.[21] As consideration for their shares, "ElOP agreed to grant to ImageSat the exclusive rights to commercialize its contributions to the collective '*Ofeq* satellite technology,' and not to compete with ImageSat in the exploitation of its satellite earth observation technology…."[22] This exclusivity arrangement was "precisely [the same] as IAI had done through the initial joint venture agreements in 1994 and 1995."[23] Soon

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[16] *Id.* at ¶ 40.

[17] *Id.* at ¶ 60.

[18] *Id.* at ¶¶ 59-60.

[19] *See supra* note 17.

[20] Complaint, *supra* note 8, at ¶ 56. "N.V." or "Naamloze Vennootschap" refers to the entity's designation as a public limited liability company under the laws of the Netherlands Antilles. *Id.* Although the company maintains an office on the Netherlands Antilles island of Curacao, its principal place of business is in Israel. *Id.* at ¶ 39.

[21] *Id.* at ¶ 61.

[22] *Id.*

[23] *Id*.

after, Core Software Technology also sold off a portion of its interest to a group of private investors.[24]

To finance the company's day-to-day operations and particularly the costs associated with the launch of its first satellite, *EROS A*, ImageSat's executive team focused heavily on obtaining private investment.[25] As an inducement to investors, the complaint alleges that "[f]rom the outset, it was understood and agreed that ImageSat would be an apolitical, commercial enterprise"[26] and that beyond "certain narrowly defined limitations by the IMOD (in its role as the export control authority for classified Israeli technology used by the company) ImageSat's business decision-making, including the selection of the customers (countries) with which [it] would do business, was to be completely apolitical."[27] ImageSat thus began operation with a unique ownership structure comprised of both private and State-supported entities.

WILSON V. IMAGESAT INTERNATIONAL N.V.

The veracity of the allegations against ImageSat and its co-defendants has yet to be proven in court. Nonetheless, the charges raised in the complaint implicate several bedrock principles of corporate law and, in some instances, raise unique twists on their historic doctrines. Many of these issues—such as breach of contract, shareholder rights, and corporate responsibility—have been litigated for decades if not centuries, so a review of them here is unlikely to shed new light on any matter of substance. However, the actions taken by a State-owned company to the detriment of other shareholders, and the fiduciary relationship owed therein, present an unusual dynamic in an otherwise routine complaint.

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[24] *Id.* at ¶ 62. After the stock transfers, ImageSat's ownership composition appeared as follows: IAI (37.5%); Elbit Systems (12.5%); Core Software Technology (31.25%); private investors (18.75%).

[25] *Id*. at ¶ 79. This was accomplished through the use of "bridge warrants" which could later be converted into ImageSat common stock. *Id.* at ¶ 84. EROS (Earth Remote Observation Satellite) was the commercial version of Ofeq. *See supra* note 6.

[26] Complaint, *supra* note 8, at ¶ 63.

[27] *Id.*

A. The Origins of the Lawsuit

The plaintiffs in this case are minority shareholders of ImageSat International who, along with holders of ImageSat stock options and convertible bridge warrants, allege that:

> Instead of properly recognizing [their] rights [as] minority shareholders, [the] Defendants have deprived them of their voice in the operation of the Company and have engaged in a series of actions and transactions characterized by multiple breaches of fiduciary duty, self-dealing, and other willfully fraudulent, deceptive, and oppressive acts, the net effect of which . . . has been to strip hundreds of millions of dollars of shareholder value from ImageSat and to further and wrongfully dilute and devalue or destroy each of the Plaintiffs' ownership interests in the Company.[28]

Although the plaintiffs bring their lawsuit chiefly against ImageSat International, nineteen of their twenty-two claims for relief also involve allegations against another defendant—the State-owned IAI. Since the lawsuit against ImageSat raises few, if any, novel legal questions by itself while the action against the State-owned corporation IAI offers many more, the following analysis will be confined exclusively to discussing IAI's role in the case.

B. The Allegations Against IAI

The allegations against IAI are numerous and varied. Six of the claims allege breach of fiduciary duty; two allege liability for corporate waste; and the remainder raise allegations ranging from self-dealing to common-law fraud.[29] Two particular allegations to be discussed herein include IAI's alleged interference with ImageSat's negotiations with the Government of Venezuela, and also its alleged campaign to diminish ImageSat's international operations through targeted contract breaches.

Looking to the first claim of IAI's alleged interference with the Venezuelan negotiations, the plaintiffs seek damages of

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[28] *Id.* at ¶ 3.

[29] *Id*. at ¶¶ 194 -389.

$215 million on this particular count stemming from IAI's "[m]anipulat[ion of] ImageSat's SOP program to enhance the attractiveness of [its] own sales initiatives in Venezuela" and also its failure "to take advantage of the Venezuelan opportunity for reasons unrelated to the best interests of the Company and its shareholders."[30] These actions allegedly devalued the company by millions. In 1999, Stephen Wilson and two other plaintiffs acting on ImageSat's behalf began discussions with the Venezuelan government to see about obtaining a lucrative SOP contract.[31] Negotiations proved successful when Venezuela allocated funds for ImageSat's program in 2002.[32] The complaint alleges that shortly thereafter, "IAI's senior international marketing and sales team . . . informed the Venezuelan Air Force that ImageSat's SOP proposal was withdrawn and that instead, the *EROS* satellite program had been 'bundled' with a comprehensive and more expensive high-tech intelligence program proposed by IAI."[33] If true, this behavior would certainly support the "manipulation" allegation regarding the Venezuelan deal.

Looking to the second charge in this allegation, that IAI deliberately failed to take advantage of the Venezuelan opportunity for "reasons unrelated to the best interests of the Company and its shareholders," the geopolitical landscape at the time provides a likely reason for why this might have occurred. In 2002, the relationship between the United States and Venezuela was worsening and Israel had to decide where it stood in relation to these changes.[34] The plaintiffs allege that the deteriora-

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[30] *Id.* at ¶¶ 226-34.

[31] *Id.* at ¶ 134.

[32] *Id.* at ¶ 135.

[33] *Id.*

[34] "Protests in April 2002 led to a gun-battle in Caracas between government and opposition supporters and the deaths of more than a dozen people. In these circumstances military leaders refused to act on orders by Chavez to repress demonstrators and subsequently on the evening of April 11 asked the president to leave office. However a small right-wing group of military leaders then took control, closing the assembly. In these confused circumstances, the military high command then asked Chavez back to power late on April 13. . . . The coup was significant for two reasons. First, in the wake of the coup Mr. Chavez began to purge political opponents in the armed forces and gradually cemented his control over the institution. Second, the coup contributed to [the] deterioration in relations between the United States and Chavez."

tion in diplomatic relations between the United States and Venezuela caused Shimon Eckhaus, ImageSat's CEO and IAI's former Vice President for International Marketing and Sales—the same IAI division which had previously attempted to market its own satellite package to Venezuela—to declare that ImageSat would not proceed with the Venezuelan SOP opportunity.[35] The geopolitical events on record support this aspect of the plaintiff's allegation.[36]

While the initial manipulation and subsequent rejection of this business opportunity are alleged to have had an adverse effect on the plaintiffs, these are not the only accusations leveled against IAI.[37] Of particular interest is the case's second allegation concerning the destruction of ImageSat's international profile through its failure to honor several key contracts with customers such as Russia, Angola, and South Korea.[38] Although the allegation shares many similarities with the previously-mentioned Venezuelan opportunity, this accusation is decidedly different. Whereas the first claim accuses IAI and the other defendants of failing to pursue a business opportunity because of U.S.-Israeli policy concerns, this second claim goes even further by accusing them of using their combined ownership interests to essentially nationalize ImageSat.[39]

In support of this allegation, the plaintiffs argue that after the failed 2004 "launch of the IMOD's *Ofeq 6* satellite (a satellite by then urgently needed by the IMOD to replace the aging *Ofeq 5*) . . . [ImageSat's two working satellites] were suddenly recognized as priceless assets by the Israeli defense establishment."[40] The plaintiffs allege that IAI and Elbit—acting in con-

Richard Lapper, *Venezuela and the Rise of Chavez: A Background Discussion Paper* (Nov. 22, 2005), http://www.cfr.org/publication/9269/venezuela_and_the_rise_of_chavez.html (last visited Oct. 13, 2007).

[35] Complaint, *supra* note 8, at ¶¶ 46, 147. "Rather than the legitimate commercial interests of Plaintiffs and similarly situated minority shareholders, Defendants were motivated by the deteriorating international relationship between the United States and Venezuela and Israel's desire to improve and maintain its historically good relations with the United States." *Id.* at ¶ 149.

[36] Lapper, *supra* note 34.

[37] *See supra* note 29.

[38] Complaint, *supra* note 8, at ¶ 220.

[39] *Id.* at ¶ 17.

[40] *Id.* at ¶ 19.

cert for the benefit of the IMOD—"caus[ed] many of the Company's operations outside of Israel to be terminated…."[41] This decision allegedly manifested itself through the willful "default of a strategic . . . relationship with Sovinformsputnik, the exclusive licensee of the Russian Space Agency," through the failure "to deliver under the terms of its [agreement with] South Korea, another of the Company's prime SOP prospects," and also by "[w]illfully failing to deliver, over a four-year period . . . even a single day of autonomous SOP service to Angola…."[42] Viewed together, the plaintiffs allege that these actions have taken a "formerly dynamic and robustly international corporate profile [and] gradually but irreparably diminished [it] to that of a small and captive (though uniquely valuable) Israeli company based entirely in, and primarily serving constituencies in, Israel."[43]

C. Piercing the Corporate Veil

There is a well-established principle in corporate law known as the Business Judgment Rule which holds that "absent a showing of bad faith, self-dealing, or some other breach of fiduciary duty, a court normally may not reach the issue of whether an act of the Board is reasonable."[44] This doctrine is designed to keep directors from being sued every time the corporation makes a decision that does not pay off.[45] Courts recognize that with the benefit of hindsight any failed decision would likely be seen as unreasonably risky, yet in order to allow the business to take calculated risks which could produce socially-desirable returns, courts have limited themselves to evaluating whether the board's decision was "taken in good faith and in the exercise of honest judgment in the lawful and legitimate furtherance of corporate purposes . . ."[46]

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[41] *Id.* at ¶ 220. ImageSat's CEOs at the time of these actions had all previously been employed by IAI. *Id.* at ¶ 114.

[42] *Id.* at ¶ 220.

[43] *Id.* at ¶ 17.

[44] Braun v. 941 Park Ave., 816 N.Y.S.2d 58, 62 (N.Y. App. Div. 2006).

[45] *Id.*

[46] *Id.*

Related back to *Wilson v. ImageSat International*, the Business Judgment Rule could provide an airtight defense to IAI and the remaining co-defendants if they could prove that they exercised their powers "for the common and general interests of the corporation [even though] the results show that what they did was unwise or inexpedient."[47] However, a showing of bad faith or a breach of fiduciary duty through fraud, self-dealing, or unconscionability could negate this rule and allow the court to make further inquiry into their decision-making process.[48] To avoid this, IAI and its co-defendants could try to argue, for instance, that the decisions to withdraw from the Venezuelan opportunity or to scale back ImageSat's international operations were not made out of any bad-faith desire for unjust personal enrichment, but merely the result of prevailing global trends and the need to adapt accordingly. By using the Business Judgment Rule as a shield, IAI could escape liability for any damages ImageSat International might have suffered because it could argue that it sincerely believed—albeit erroneously—that the decisions it supported were in ImageSat's overall best interest. Any weight these arguments would be afforded, however, would rest upon a showing of whether or not they "breached their fiduciary obligation to the corporation" and the remaining shareholders.[49]

D. Defining Fiduciary Duty

"While noting the *existence* of fiduciary duties is an uncomplicated task, the same may not be said of defining precisely what is *proper conduct* in the context of a particular corporate transaction."[50] This observation by the New York Court of Appeals in *Alpert v. 28 Williams Street Corp.* eloquently applies to the allegations raised against IAI. With the complaint alleging

[47] Matter of Levandusky v. One Fifth Ave. Apt. Corp., 75 N.Y.2d 530, 537-38 (N.Y. 1990).

[48] Schoninger v. Yardarm Beach Homeowners Ass'n, Inc., 134 A.D.2d 1, 10 (N.Y. App. Div. 1987).

[49] Pelton v. 77 Park Ave. Condominium, 38 A.D.3d 1, 8 (N.Y. App. Div. 2006).

[50] Alpert v. 28 Williams Street Corp., 473 N.E.2d 19, 26 (N.Y. 1984) (italics emphasis added).

a total of over $3.5 billion of damages accrued over several years of supposed transactions and inactions,[51] it will undoubtedly take some time to determine the propriety of all of the decisions made by IAI and the implications arising from them. However, general principles of fiduciary duty have long been in existence, so it is possible to identify factors the Court will likely consider in rendering a decision. The plaintiffs have chosen to file in the Southern District of New York and assert that New York is the appropriate judicial forum for this case.[52] Therefore, as with the preceding section of this analysis, New York law will be cited herein.

Although IAI was never—and could never have become—a true majority shareholder under the terms of ImageSat's formation,[53] its collaborative relationship with Elbit Systems and many of the individuals named as co-defendants is alleged to have given it unparalleled practical dominion over the corporation's affairs.[54] Under such circumstances, minority status has been held to be insignificant in light of a shareholder's virtually unfettered control and jurisdictions have agreed that the question of minority versus majority should not focus on mathematical calculations, but instead upon whether they have the power to work their will on others and whether they have done so improperly.[55] Therefore, in the instant case an analysis regarding abuse by a majority shareholder can be applied to IAI, a technical minority, but practically dominant, shareholder.

In light of the position of control IAI is accused of occupying, New York law is instructive about how courts will likely

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[51] Complaint, *supra* note 8, at pp. 148-51.

[52] *Id.* at ¶ 73. ImageSat's board allegedly held regular meetings in New York to consider policy changes. *Id.*

[53] *Id.* at ¶ 59.

[54] Though not arising under New York law, *Hollis v. Hill*, 232 F.3d 460, 466 n.16 (5th Cir. 2000) is particularly instructive on this point:

While we acknowledge that in *Clark* the plaintiff truly was a "minority" shareholder, in the sense that he owned only 1/5 of the stock, we find this difference insignificant in light of Hill's virtually unfettered control of FFUSA. Further, [. . .] other jurisdictions have agreed that the question of minority versus majority should not focus on mechanical mathematical calculations, but instead, "The question is whether they have the power to work their will on others-and whether they have done so improperly."

[55] *Id.*

treat shareholders who are accused of abusing their power. In *Robinson v. New York, Westchester & Boston Railway Co.*, a merger case decided in 1908, the Court held that when an action of a controlling party "is so detrimental to the interests of the corporation itself as to lead to the necessary inference that the interests of [those] shareholders lie wholly outside of, and in opposition to, the interests of the corporation and of a minority of the shareholders," a court may intervene to prevent the "wanton or fraudulent destruction of the [aggrieved party's] rights . . . ."[56] Furthermore,

> because the power to manage the affairs of a corporation is vested in the directors and majority shareholders, they are cast in the fiduciary role of "guardians of the corporate welfare" [and in] this position of trust, they have an obligation to all shareholders to adhere to fiduciary standards of conduct and to exercise their responsibilities in good faith when undertaking any corporate action.[57]

Being a "guardian of the corporate welfare," as *Alpert* calls it, imposes "an overriding duty to provide good and prudent management, which demands that decisions be made for the welfare, advantage, and best interests of the corporation and the shareholders as a whole…."[58]

Relating this back to IAI, the recurring obligations of duty and good faith are important concepts in New York law and will likely figure prominently in deciding *Wilson v. ImageSat International N.V.* In *Higgins v. New York Stock Exchange*, the court ruled that one "component of a fiduciary's dut[y] to the corporation is that [the controlling parties] are obligated to exercise all of their responsibilities . . . in good faith."[59] Good faith is the "honest belief, the absence of malice and the absence of design to defraud or to seek an unconscionable advantage."[60] Bad faith,

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[56] Robinson v. New York, Westchester & Boston Ry. Co., 123 A.D. 339, 341 (N.Y. App. Div. 1908).

[57] Alpert v. 28 Williams Street Corp., 473 N.E.2d 19, 25 (N.Y. 1984).

[58] *Id.* at 28.

[59] 806 N.Y.S.2d 339, 361 (N.Y. Sup. Ct. 2005).

[60] Nicolleta v. Rochester Eye and Human Parts Bank, Inc., 519 N.Y.S.2d 928, 930 (N.Y. Sup. 1987).

conversely, "means [an] ulterior motive, for example, [such as] personal gain."[61] A showing of bad faith in its interactions with ImageSat would likely strip away IAI's protection afforded by the Business Judgment Rule.[62] Even if IAI is not found to have acted in bad faith, however, its legal challenges are far from over, since "[u]nder New York law, corporate fiduciaries may be held liable for breach of fiduciary duty even for conduct undertaken in good faith and innocent intent"[63] and "[i]t is well established that . . . good faith or innocent motives . . . [are] no defense to liabilities founded upon breaches of fiduciary obligations."[64]

E. The FSIA Effect

In light of the number of allegations leveled against IAI, it is possible that a court will find *some* violation of fiduciary duty or evidence of bad faith on its part. However, if IAI is deemed to be acting more like an instrumentality of the State of Israel instead of a regular corporation, the Foreign Sovereign Immunities Act of 1976 (FSIA)[65] holds that this may not be relevant. Passed "to give foreign states and their instrumentalities some protection from the inconvenience of suit as a gesture of comity between the United States and other sovereigns[,]" this act may restrict or even bar some of the litigation against IAI.[66]

FSIA provides in pertinent part that "a foreign state shall be immune from the jurisdiction of the courts of the United States" unless its conduct falls under one of the Act's exceptions. While these exceptions are too numerous to list here, they generally involve the waiver of immunity either by consent or though engaging in a commercial activity which causes a "direct effect" in the United States, or through the bringing of a counterclaim in an American court.[67] In *Dole Food Co. v. Patrickson*

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[61] P.J. Taggares Co. v. New York Mercantile Exchange, 476 F. Supp. 72, 77 (S.D.N.Y. 1979).

[62] *See supra* note 47.

[63] In re Happy Time Fashions, Inc., 7 B.R. 665, 670 (Bankr. S.D.N.Y. 1980).

[64] In re Hyman, 320 B.R. 493, 505 (Bankr. S.D.N.Y. 2005).

[65] 28 U.S.C. § 1602 (1976).

[66] Dole Food Co. v. Patrickson, 538 U.S. 468, 479 (2003).

[67] *See supra* note 65 at § 1604.

the Court ruled that "[s]ome of the Act's provisions also may be invoked by a corporate entity that is an 'instrumentality' of a foreign state as defined by the Act."[68] Under FSIA, an instrumentality of a foreign state is defined as an entity (1) which is a separate legal person, corporate or otherwise, and (2) which has a majority of its shares or ownership interest owned by a foreign state, and (3) is neither a citizen of a State of the United States nor was created under the laws of any third country.[69] The plaintiffs' complaint identifies IAI as a legal entity separately defined from the State of Israel having 100% of its shares owned by the Israeli government, and while it has an American subsidiary created under the laws of Delaware, by itself it is not a citizen of any American state or a creation under the laws of any "third country" (i.e. one other than the United States or Israel).[70]

In *Dole Food Co.*, the U.S. Supreme Court had to determine whether the *subsidiaries* of another State-owned Israeli company could qualify for legal immunity.[71] There, the Court ruled that "a foreign state must itself own a majority of the shares of a corporation if the corporation is to be deemed an instrumentality of the state [and possibly protected by immunity] under the provisions of FSIA…."[72] While this means that ImageSat will have no defense under a claim of sovereign immunity, the issue is less clear for IAI. Given that IAI is not a subsidiary of any other firm and appears to meet FSIA's requirements for being deemed an instrumentality of Israel, it seems at first to have protection under sovereign immunity. However, as with many issues the Supreme Court takes up, the doctrine announced in one case is rarely made in a judicial vacuum and often builds upon the rulings and factual histories of others. A clear illustration of this comes in the next case, *Republic of Argentina v. Weltover, Inc.*,[73]

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[68] *Dole Food Co.*, 538 U.S. at 471.
[69] *See* 28 U.S.C. § 1603(b).
[70] Complaint, *supra* note 8, at ¶ 40.
[71] *Dole Food Co.*, 538 U.S. at 476.
[72] *Id.* at 480.
[73] 504 U.S. 607 (1992).

In *Republic of Argentina v. Weltover, Inc.*, the Supreme Court addressed whether Argentina's issuance of bonds payable in New York City constituted enough of a "commercial" activity to warrant the loss of immunity under FSIA.[74] While recognizing that "jurisdiction may not be predicated on purely trivial effects in the United States,"[75] the Court ruled that:

> when a foreign government acts, not as regulator of a market, but in the manner of a private player within it, the foreign sovereign's actions are "commercial" within the meaning of the FSIA. Moreover, because the Act provides that the commercial character of an act is to be determined by reference to its "nature" rather than its "purpose," 28 U.S.C. § 1603(d), the question is not whether the foreign government is acting with a profit motive or instead with the aim of fulfilling uniquely sovereign objectives. Rather, the issue is whether the particular actions that the foreign state performs (whatever the motive behind them) are the *type* of actions by which a private party engages in "trade and traffic or commerce…."[76]

This creates a problem for defenses IAI might try to raise on the grounds of sovereign immunity, because, as the complaint alleges, its proposal to supply the Venezuelan government with its own package of satellite services would likely be seen by the Court as evidence of a "commercial" activity carried out by a "private player" in the global satellite market.[77] However, as the Court recognized in *Saudi Arabia v. Nelson*, there is great difficulty in "distinguishing 'purpose' (i.e. the *reason* why the foreign state engages in the activity) from 'nature' (i.e. the outward form of the conduct that the foreign state performs or agrees to perform[.]"[78] Thus, any effect this distinction might have on the remaining allegations against IAI is unclear, since the Court did not clarify the extent to which an otherwise political action—such as declaring sanctions against a regime such as Venezuela—could translate into a "commercial" activity undertaken

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[74] *Id.* at 607.
[75] *Id.* at 618.
[76] *Id.* at 614.
[77] *See supra* note 32.
[78] 507 U.S. 349, 361 (1993).

by an instrumentality—such as directing ImageSat to refuse to consummate a sale to Venezuela.

CONCLUSION

With the actions of so many parties under review and so much money potentially at stake, the case of *Wilson v. ImageSat International N.V.* promises to be interesting. At the heart of this dispute the question remains of what happens when an entity like IAI tries to have it both ways? That is, what are the legal repercussions when an entity acts like a corporation in some settings and as an extension of a Nation-State in others? Are they to be treated as a government instrumentality, a private institution, or some combination in between? This question adds an uncertain dimension to an otherwise routine shareholder action, because as the Supreme Court held in *Dole Food Co. v. Patrickson*, there are certain instances when a State-owned corporation will be held immune from suit, but as it also ruled in *Republic of Argentina v. Weltover, Inc.*, there are other instances when it will not. Compounding the uncertainty, *Saudi Arabia v. Nelson* freely admits that the distinction is a close one. General principles of corporate law suggest that IAI owes fiduciary duties to ImageSat and its other shareholders, but if seen as an instrumentality of the State, the effect of these duties is less clear. Since IAI is alleged to have committed or influenced the majority of the allegations raised in this lawsuit, how this distinction is resolved will have a powerful effect on the overall case.

COMMENTARY

NATIONAL SPACE LEGISLATION IN MAINLAND CHINA

Yun Zhao[*]

1. INTRODUCTION

China launched its first satellite (DFH-1) by Long March vehicle in 1970 and became full member of the United Nations Committee on Peaceful Uses of Outer Space (UNCOPUOS) ten years later. Due to historical reasons, China has so far concentrated on technological development in outer space; development of and research in space law has been lagging far behind. However, China has, on various occasions, acknowledged the importance of space law in the development of space exploration and has taken efforts to improve in this area. The UNCOPUOS membership has accelerated China's pace in space legislation. The Chinese Government ratified the Outer Space Treaty[1] in 1983 and the other three space treaties (except the Moon Agreement) in 1988.[2]

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[1] Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, Jan. 27, 1967, 610 U.N.S.T. 205 (entered into force Oct. 10, 1967) [hereinafter the Outer Space Treaty]. China acceded to the Outer Space Treaty on December 30, 1983.

[2] Agreement on the Rescue of Astronauts, the Return of Astronauts, and the Return of Objects Launched into Outer Space, Apr. 22, 1968, 19 U.S.T. 7570, 672 U.N.T.S. 119 [hereinafter Rescue Agreement]; Convention on International Liability for Damage

Efforts in developing national space legislation started around 1994; but most substantial work was carried out after 1998 when China reformed its administrative system for the industries. Currently, there are no national space laws in China. But several regulations have been implemented concerning registration and launching of space objects: the Provisions and Procedures for the Registration of Space Objects on February 8, 2001[3]; and the Interim Measures on the Administration of Permits for Civil Space Launch Projects on November 21, 2002[4]. China's ambitious plan to reach out to the Moon and other, less ambitious, space projects underscores the urgent need for national space legislation.

2. SPACE POLICY

China's space activities aim to explore outer space, and enhance understanding of the Earth and the cosmos; to utilize outer space for peaceful purposes, promote human civilization and social progress, and benefit the whole of mankind; to meet the demands of economic construction, scientific and technological development, national security and social progress; and to raise the scientific quality of the Chinese people, protect China's national interests and rights, and build up the comprehensive national strength.[5]

The principles to be followed for the development of China's space industry, as identified in the White Paper on China's Space Activities in 2006, are as follows: maintaining and serving the country's overall development strategy, and meeting the

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Caused by Space Objects, Mar. 29, 1972, 24 U.S.T 2389, T.I.A.S No. 7762 [hereinafter Liability Convention]; and the Convention on Registration of Objects Launched into Outer Space, Jan. 14 1975, 28 U.S.T. 695, 1023 U.N.T.S. 15 [hereinafter Registration Convention]. China acceded to the Rescue Agreement on December 14, 1988, the Liability Convention on December 12, 1988, and the Registration Convention on December 12, 1988.

[3] Order No. 6 of the Commission of Science, Technology, and Industry for National Defense of the People's Republic of China, February 8, 2001.

[4] Order No. 12 of the Commission of Science, Technology, and Industry for National Defense of the People's Republic of China, November 21, 2002.

[5] The State Council Information Office, China's Space Activities in 2006 (White Paper), Beijing, China (Oct. 2006), http://www.china.org.cn/english/features/book/183672.htm (hereinafter 2006 White Paper).

needs of the state and reflecting its will; upholding independence and self-reliance policy, making innovations independently and realizing leapfrogging development; maintaining comprehensive, coordinated and sustainable development, and bringing into full play the functions of space science and technology in promoting and sustaining the country's science and technology sector, as well as economic and social development; adhering to the policy of opening up to the outside world, and actively engaging in international space exchanges and cooperation.[6] The above aims and principles apply generally to national space legislation in China.

It is also to be noted that international cooperation is elaborated in a separate part in the White Paper in 2000, implying that China attaches great importance to space cooperation in various levels.[7] This principle has been further confirmed in the 2006 White Paper on China's Space Activities.[8] In this White Paper, China clarifies the following policies with regard to developing international space exchanges and cooperation: adhering to the principle of independence and taking the initiative in our own hands, carrying out active and practical international cooperation in consideration of the overall, rational utilization of domestic and international markets and resources to meet the needs of the national modernization drive; supporting activities regarding the peaceful use of outer space within the framework of the United Nations; attaching importance to space coopera-

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[6] *Id.*

[7] The State Council Information Office, China's Space Activities in 2000 (White Paper), Beijing, China (Nov. 2000). http://www.spaceref.com/china/china.white.paper.nov.22.2000.html. Guiding principles for international cooperation are: the aim of international space cooperation is to peacefully develop and use space resources for the benefit of all mankind; international space cooperation should be carried out on the basis of equality and mutual benefit, mutual complementarity and common development, and the generally accepted principles of international law; the priority aim of international space cooperation is to simultaneously increase the capability of space development of all countries, particularly the developing countries, and enable all countries to enjoy the benefits of space technology; necessary measures should be adopted to protect the space environment and space resources in the course of international space cooperation; the function of the United Nations Office of Outer Space Affairs (OOSA) should be consolidated and the outer space application programs of the United Nations should be backed up.

[8] 2006 White Paper, *supra* note 5.

tion in the Asia-Pacific region, and supporting other regional space cooperation around the world; reinforcing space cooperation with developing countries, and valuing space cooperation with developed countries; encouraging and endorsing the efforts of domestic scientific research institutes, industrial enterprises, institutions of higher learning, as well as social organizations to develop international space exchanges and cooperation in different forms and at different levels under the guidance of relevant state policies, laws and regulations.[9]

3. ORGANIZATION OF NATIONAL SPACE ACTIVITIES

China National Space Administration (CNSA) was established as a government institution to develop and fulfill China's due international obligations, with the approval by the 8th National People's Congress (NPC) of China. The 9th NPC assigned the CNSA as an internal structure of the Commission of Science, Technology and Industry for National Defense (COSTIND). The CNSA assumes the following main responsibilities: signing governmental agreements in the space area on behalf of organization, inter-governmental scientific and technical exchanges; and also being in charge of the enforcement of national space policies and managing the national space science, technology and industry.[10] Accordingly, the CNSA is the main administrative body in charge of national space industry and civil space activities; it is also the most important authority responsible for preparing space legislation, formulating policies for space industry and technology, making plans for space development and setting standards in these areas.[11]

There are four departments under the CNSA: Department of General Planning, Department of System Engineering, Department of Science, Technology and Quality Control, Department of Foreign Affairs. [12]

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[9] *Id.*

[10] China National Space Administration, http://www.cnsa.gov.cn (last visited Dec. 6, 2007).

[11] *Id.*

[12] *Id.*

4. CURRENT LEGAL FRAMEWORK FOR SPACE ACTIVITIES

4.1. Registration of Space Objects

The Provisions and Procedures for the Registration of Space Objects, published in 2001 by the COSTIND and the Ministry of Foreign Affairs (MFA), is the first domestic administrative regulation adopted by China on space activities. The main purpose of this regulation is to fulfill China's commitments under the Registration Convention, while taking into account the practical situation in China.

All the space objects launched within the territory of China, or launched abroad but with China as a co-launching State, shall be registered with the COSTIND within 60 days after the space objects were launched into orbit. The COSTIND should maintain the National Registration Booklet. Modification to the registration shall be done within 60 days after the change of the relevant circumstances, such as changes of orbit, disintegration, end of operation, or re-entry into atmosphere. The COSTIND shall provide to the MFA relevant registration data within 60 days after domestic registration; the MFA will then register with the United Nations Secretary-General. With regard to the special case of Hong Kong and Macao, a special Sub-Registration Booklet shall be established with the registration procedure to be stipulated separately.[13]

4.2. Licensing of Launch Services by Private Enterprises

The Interim Measures on the Administration of Permits for Civil Space Launch Projects, released by the COSTIND in 2002, established the licensing regime for all spacecraft launches within the territory of China, excluding launches for military purposes and the entry of such spacecrafts over which the natu-

[13] Xiaohong Liu & Xiaoqing Wang, *The First Administrative Regulation on Space Activities in China*, UNITED NATIONS/INTERNATIONAL INSTITUTE OF AIR AND SPACE LAW (IIASL) WORKSHOP ON CAPACITY BUILDING IN SPACE LAW (The Hague, Nov. 18-21, 2002). The registration procedure include open end; possibility of being amended after certain period of implementation; and possibility of being upgraded into administrative law or regulation in the future. *Id.*

ral persons, legal persons or other organization of China have had property or have property by means of on-orbit delivery into the outer space from outside of the territory of China.[14] The COSTIND is the authority responsible for examining, approving and supervising all civil space launch projects.[15]

The general project contractor should apply to the COSTIND with relevant documents nine months before the prearranged month for the launch of the project.[16] The COSTIND should organize the examination of the project within 30 days as of receipt of the application documents and notify in writing the applicant and the relevant departments of the decisions.[17] The permit should include the following: the name of the applicant and its legal representative, the registration address of the applicant's domicile, main contents of the project, the prearranged time for launch, validity period of the permit, the organ issuing the permit and the time of issuance.[18] An application for modification or cancellation should be filed 90 days before the expiry of the validity period of the permit. [19]

The permit holder must purchase the third party liability insurance and other relevant insurances for launching a space object.[20] For a project in the stage of a domestic executive launching site, the permit holder shall report the launching plan 6 months before the prearranged month for launch and file an application for approval to leave the factory with relevant materials before entering the stage of a launching site.[21]

The Interim Measures prescribed administrative penalties and criminal liabilities for acts such as concealing the truth, practicing fraud, damaging the interests of the State, undertak-

[14] Decree of the Commission of Science, Technology, and Industry for National Defense of the People's Republic of China (Interim Measures on the Administration of Permits for Civil Space Launch Projects), No.12, Nov. 21, 2002, at art. 2, *available at http://www.fdi.gov.cn/pub/FDI_EN/Laws/InvestmentDirection/GuidanceforSpecificIndustries/t20060620_51408.jsp*.

[15] *Id.* at art. 4.

[16] *Id.* at arts. 5-6.

[17] *Id.* at art. 7.

[18] *Id.* at art. 10.

[19] *Id.* at art. 13-14.

[20] *Id.* at art. 19.

[21] *Id.* at art. 20.

ing projects without authorization, neglecting duties or abusing powers resulting in losses caused to the State.[22]

4.3. National Legal Barriers to International Transfer of Space Technology

For a complete understanding of Chinese space legislation at the present stage, it is important to note some regulations relating to military space activities.[23] The Regulations on Control of the Military Products Export, first enacted in 1997 and revised in 2002, were introduced to strengthen unified management of military products export.[24] Several guaranties must be satisfied before allowing the export of military products: the product must be useful to the self-defense capability of the recipient country; not being harmful to the peace, security and stability of the relevant region of the world; not interfering in the recipient country's internal affairs.[25] As required by the above Regulation, the COSTIND and the People's Liberation Army (PLA) General Armament Department (GAD) further drafted the Military Products Export Control List in 2003,[26] which includes launch vehicles, missile weapon systems and military satellites.[27]

To further strengthen export control system and prevent the proliferation of missiles and other delivering systems that can be used to deliver weapons of mass destruction,[28] the State Council published the Regulations of the People's Republic of China on Export Control of Missiles and Missile-related Items

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[22] *Id.* at arts. 24-26.

[23] List of Chinese Language Statements and Documents, *available at* http://www.nti.org/db/china/chindoc1.htm (last visited Dec. 11, 2007).

[24] Regulations on Control of the Military Products Export, Oct. 22, 1997, at art. 1, *available at* http://cns.miis.edu/research/china/chiexp/regmpe.htm.

[25] *Id.* at art. 5.

[26] Regulations on Control of the Military Products Export, Article 2(2), provides that the military products export control list shall be formulated, adjusted, and promulgated by the state department in charge of military products export. *Id.* at art. 2(2).

[27] Category 8 of the Military Products Export Control List, Mar. 21, 2003. *available at* http://news.sohu.com/97/87/news207378797.shtml (last visited Dec. 11, 2007).

[28] Regulations on Export Control of Missiles and Missile-related Items and Technologies, Aug. 25, 2002, at art. 3, *available at* http://www.nti.org/db/china/engdocs/expreg_0802.htm.

and Technologies in 2002, together with the Missiles and Missile-related Items and Technologies Export Control List. According to the Regulations, rockets, unmanned air vehicles, missiles (ballistic and cruise missiles) and missile-related items and technologies are subject to export control.[29]

A licensing regime is established for the export of the above items and technologies. The exporter should apply to the competent foreign economic and trade department of the State Council with the export application form and relevant documents. The above department shall examine the application (possibly joined by other relevant departments of the State Council and of the Central Military Commission) and make a decision within 45 days after the receipt of the application.[30] The regulation also provides for possible administrative penalties and criminal liability for certain acts.[31]

5. FURTHER DEVELOPMENT

Space legislation is, at the moment, among the highest priorities on the CNSA's agenda. A special task force was set up under the CNSA to study the issue of national space legislation. It has been agreed that space legislation in China should move gradually.

The administrative structure and code of conduct concerning space activities in China are still in the process of development; regulation of specific aspects of space activities shall be the priority of space legislation. Such specific regulations may touch on such issues as investment and financing, insurance and indemnification system, commercial operation and management, and international cooperation. Once the regulations prove to be efficient and practicable, a comprehensive law on outer space may be drafted and adopted. The ultimate goal for China is to have a national space law, complemented by a set of administrative laws/regulations and departmental rules.

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[29] *Id.* at art. 2.
[30] *Id.* at art. 10.
[31] *Id.* at arts. 15-22.

On October 18, 2007, the COSTIND released "the 11th Five-Year Program for National Space Development". This first overall aerospace blueprint plans nine major missions from 2006 to 2010.[32] One paragraph was devoted to the development of space law in China. The Regulation on the Administration of Space Activities is one of the laws to be published in the next five years. This Five-Year Plan also provides that China will start its work on National Space Law (with no settled time schedule). China will enact detailed policies on space industry, which include the policy of providing incentives in using domestic space products (including domestic satellites, remote sensing data and rockets), and the policy of space commercialization and privatization. In the next five years, China will also improve the current price system for space products and make rules on the administration of scientific research and production in outer space, and the administration of import and export of space technology.

Currently, the Regulation on the Liability for Damage in Launching Space Objects has been submitted for approval by the State Council. This draft legislation intends to implement the 1972 Liability Convention. The efforts above have sufficiently demonstrated Chinese Government's firm efforts in carrying out international obligations on space issues and commitment to achieving legal transparency in outer space.

The draft Regulation on the Administration of Space Activities has been circulated for discussion among scholars and scientific experts. It is at the moment soliciting views from various parties and departments, including the Central Military Commission, Ministry of National Defense. Several meetings will be organized to discuss this regulation, one meeting being scheduled by end of this December for discussion among legal scholars. The existing space laws and the above two draft regulations

[32] *China's Five Year Aerospace Blueprint Plan Includes Trips to the Moon, Navigation Satellites*, ALL HEADLINE NEWS, Oct. 19, 2007, http://allheadlinenews.com/articles/7008886845 (last visited October 30, 2007). Highlights of the five year plan include a trip to the Moon, manned space flights, improvements of the Compass Navigation Satellite System, a new generation of carrier rockets and completion of a space industry structure from satellite production to promotion of satellite exports.

will pave the way for a general National Space Legislation for China in future.

LAW

CHINESE LAW: REGISTRATION, LAUNCHING AND LICENSING SPACE OBJECTS

The Faculty of International Law of China University of Political Science and Law and the National Center for Remote Sensing, Air, and Space Law at the University of Mississippi are pleased to present to the readers of the JOURNAL OF SPACE LAW these unofficial translations of Order No. 6 of the Commission of Science, Technology, and Industry for National Defense and the Ministry of Foreign Affairs of the People's Republic of China, 8 February 2001; and, Order No. 12 of the Commission of Science, Technology, and Industry for National Defense of the People's Republic of China, 21 November 2002.

(Unofficial Translation by Faculty of International Law of China University of Political Science and Law)

ORDER NO. 6 OF THE COMMISSION OF SCIENCE, TECHNOLOGY, AND INDUSTRY FOR NATIONAL DEFENSE AND THE MINISTRY OF FOREIGN AFFAIRS OF THE PEOPLE'S REPUBLIC OF CHINA, 8 FEBRUARY 2001

Measures for the Administration of Registration of Objects Launched into Outer Space

"Measures for the Administration of registration of Objects Launched into Outer Space" is issued and comes into effect on the date of issue.

P.R.C. COSTIND
P.R.C. Ministry of Foreign Affairs
February 8, 2001

Art.1 These Measures are formulated for the purpose of strengthening the administration of outer space activities, establishing national registry of space objects, protecting the legitimate interests of China as a launching State of space objects, effectively fulfilling the obligations of a contracting State of the Convention on Registration of Objects Launched into Outer Space.

Art.2 For the purpose of these measures, the term "space object" refers to an artificial satellite, crewed spacecraft, space probe, space station, launch vehicle and parts of thereof, and other human-made objects launched into outer space.

The Sounding Rocket and Ballistic Missile that temporarily crosses outer space shall not be regarded as a "space object."

Art.3 These measures shall apply to all the space objects launched in the territory of China, and the space objects jointly launched abroad by China and other States. The term "launching State" means a State which launches or procures the launching of a space object, and a State from whose territory or facility a space object is launched.

Art.4 China carries out the system of registering space objects. All government departments, juridical persons, other organizations and natural persons which launch or procure the launching of a space object shall have the obligation to register the space object in accordance with these Measures.

Art.5 The Commission of Science Technology and Industry for National Defense (Hereinafter referred to as the COSTIND) shall take charge of the administration of national registration of space objects and the Department of International Cooperation shall be responsible for routine work.

For the national registration involving other joint launching States, the COSTIND, if necessary, after consultation with the

Ministry of Foreign Affairs, determines which one of them shall register the space object.

Art.6 China establishes and maintains a National Register. The information in the National Register shall mainly include: registration number, registrant, owner of the space object, an appropriate designator of the space object, basic characters of the space object, launching enterprise of the space object, name of the launch vehicle, date and territory or location of launch, basic orbital parameters of the space object, and the status of the launching and orbiting of the space object.

See Annex: Form of National Registration of Space Objects.

Art. 7 Subject to the provisions of Article VIII of these Measures, the owner of a space object shall register the space object in the national register. Where there are more than one owners of a space object, the main owner shall register the space object on behalf of all the owners.

The launching enterprise of a space object shall provide necessary assistance in the national registration of such a space object.

Art. 8 Where a space object launched from the territory of China is owned by the government, juridical persons, organizations or natural persons of the State other than China, the corporation which provides the international launching service of the space object shall register it at national registry.

Art. 9 The registrant of a space object referred in Article 7 and Article 8 shall furnish registration information to the COSTIND and complete the registration formalities within sixty days in accordance with Article 6 after the space object has entered the space orbit

When major changes (e.g. change of orbit, break up, cease working or reentry into atmosphere) of the conditions of the space object registered in accordance with these measures occur, the registrant of the space object shall amend the information of the registration within sixty days after the conditions of the space object have been exchanged.

Art.10 The National Register specifically includes sections for Hong Kong and Macau. The specific measures for the regis-

tration of space objects which owned or launched by Hong Kong Special Administrative Region and Macau Special Administrative Region shall be instituted separately.

Art.11 The COSTIND shall maintain the National Register. With the permission of the COSTIND, the relevant government departments and juridical persons, other organizations and natural persons under the authorization of the competent governmental departments may apply to the keeper of the National Register for access to the information in this Register.

Art.12 A space object shall be registered internationally in accordance with the Registration Convention by the COSTIND, via the Ministry of Foreign Affairs within sixty days after the national registration of the space object, at the Secretariat of the United Nations.

Art. 13 According to Article IV(1) of the Registration Convention, the following information concerning each space object carried on its registry: name of launching State or States, an appropriate designator of the space object or its registration number, date and territory or location of launch, basic orbital parameters and general function of the space object, shall be included in international registration.

Art.14 For the international registration of a space object jointly launched by China and other States, the State of Registry shall be determined by the Ministry of Foreign Affairs after consultation with concerned States in accordance with the Registration Convention.

Art.15 The provisions of these Measures related to national registry shall be interpreted by the COSTIND; the provisions related to the Registration Convention and international registry shall be interpreted by the Ministry of Foreign Affairs.

Art. 16 These Measures shall enter into force upon the date of promulgation.

Annex

National Registration Form of Space Objects

Registration number:

Sequence number	Items	Contents	Remarks
1	Registrant		
2	Owner of the space object		
3	Designator of the object		
4	Basic characters of the object		
	(1) Type		
	(2) Functions		
	(3) Quality		
	(4) designed life span		
5	Name of the launching enterprise		
6	Name of the launching vehicle		
7	Date of Launch		
8	Place of launch		
9	Basic orbital parameters of the object		
	(1) Nodal period		
	(2) Inclination		
	(3) Apogee		
	(4) Perigee		
	(5) Position in geostationary orbit		
	(6) Time passing apogee		
	(7) Type of orbit		
10	Status of the launching and orbiting		

ORDER NO. 12 OF THE COMMISSION OF SCIENCE, TECHNOLOGY, AND INDUSTRY FOR NATIONAL DEFENSE OF THE PEOPLE'S REPUBLIC OF CHINA, 21 NOVEMBER 2002

Interim Measures on the Administration of Licensing the Project of Launching Civil Space Objects

"The Interim Measures on the Administration of licensing the Project of Launching Civil Space Objects" is now issued and comes into effect on December 21, 2002.

Minister of COSTIND: Jibin Liu
November 21, 2002

CHAPTER I GENERAL PROVISIONS

Article 1 The present measures are formulated with a view to regulating the administration of the project of launching civil space objects, promoting the sound development of the civil space industry, maintaining national security and the public interests, and fulfilling the obligations of China as a contracting State to the international outer space conventions.

Article 2 For the purpose of these measures, the term "project of launching civil space objects" (hereinafter referred to as "project") means the launch of a spacecraft such as a satellite from the territory of China into outer space for non-military purpose, and the launch of such a spacecraft into outer space from outside of the territory of China while the spacecraft is owned by, or the ownership of the spacecraft has been transferred on-orbit to, the persons, natural or juridical, or the organizations of the People's Republic of China.

Article 3 The administration system of licensing shall apply to the project. Any persons, natural or juridical, or organizations undertaking such a launch project shall, in accordance with the present measures, apply for examination and approval, and shall not carry out the project until he/it is found to be qualified upon examination and has obtained a license for the project.

Article 4 The Commission of Science, Technology, and Industry for National Defense (hereinafter referred to as "the COSTIND") shall plan and administrate the project, and shall be responsible for examining, approving and supervising the project.

CHAPTER II APPLICATION, EVALUATION AND AUTHORIZATION PROCEDURES

Article 5 The general project contractor shall be the applicant for a license. Where there is no domestic general project contractor, the final owner of the satellite or other spacecraft shall be the applicant for the license.

The applicant for a license is required:

(a) to abide by the laws and regulations of China, and maintain the national secrets;

(b) not to endanger the national security; damage the national interests; or violate the national diplomatic policies or the international conventions to which China is a State Party, by the project under application;

(c) not to cause irremediable danger to public health, safety, or properties by the project under application, due to major negligence or intentional acts;

(d) to have the relevant approved documents issued by the competent state departments for carrying out the project under application;

(e) to have technical staff, financial means, and technology information needed for carrying out the project under application;

(f) to meet other requirements provided by laws, regulations, or rules.

Article 6 The applicant shall, nine months prior to the scheduled launch of the project, submit the following documents (in triplicate) to the COSTIND:

(a) an application form for a project license and documents on the qualifications of the applicant for evaluation;

(b) the relevant documents proving that the project conforms to national laws and regulations on environmental protection;

(c) for a project being executed in a domestic launching site, the following information shall be provided: the scheduled time for launch; the technical requirements for the satellite; the launching vehicle and the communication system for launch, observation, and control; the detailed orbital parameters of the launching vehicle; the survey report on the landing area or recovering place; and the documents on detailed orbital parameters of the satellite and the use of frequency resources;

for a project being executed at a foreign launching site, copies of the legal documents on orbital parameters, of the launching vehicle and the satellite, and copies of the documents permitting the use of the relevant frequency resources shall be provided;

a Chinese satellite launch enterprise shall provide a copy of the "Radio Station License of the People's Republic of China" issued by the Ministry of Information Industry for the radio station in outer space;

(d) the safety design report relating to the project and documents relating to public security; supplementary documents concerning the reliability of key safety system, the affects of the launching vehicle, either in normal condition or malfunction during the launch, to the property and personal safety near the launching site and within the range of the launch track, the prevention from pollution and space debris, and other relevant safety; for a foreign-involved project, the documents concerning policy evaluation, confidentiality and security evaluation must also be submitted.

Article 7 The COSTIND shall, within thirty days as of receipt of the application documents, examine the project under application, and issue a license where the requirements are met. Otherwise, no license shall be issued. The applicant and the relevant departments shall be so notified in writing.

Article 8 Where the applicant challenges the conclusion from evaluation, it may apply to the COSTIND for re-evaluation or administrative review in accordance with the law.

Article 9 The relevant evaluation of a foreign-involved project must be carried out by a foreign trade company designated by the Chinese government, and the contract on such a project shall not enter into force until it is authorized by the COSTIND.

CHAPTER III SUPERVISION AND ADMINISTRATION

Article 10 A license shall mainly contain:

(a) the applicant and its legal representative;

(b) the registered address (the applicant's domicile);

(c) main contents of the project;

(d) the scheduled time for launch;

(e) the expiration date of the license;

(f) the organ issuing the license and the time of issuance.

Article 11 The license shall be limited to an authorized project, and shall be automatically terminated after the completion of the project.

Article 12 A license shall not be altered or transferred.

Article 13 Where any content in a license needs to be modified, the licensee shall, ninety days prior to the expiry of the license, file an application to the COSTIND for modification. The license shall not be modified until the modification has been approved upon examination.

Article 14 With respect to a project under planned cancellation, the licensee shall, ninety days prior to the expiry of the license, apply to the COSTIND for cancellation, and the license shall be nullified upon approval.

Article 15 With respect to a project that is impossible to be accomplished due to inappropriate management of the licensee, the COSTIND shall nullify the project license.

Article 16 The COSTIND shall order the licensee to rectify within a time limit, or withdraw the license in a severe case if the licensee:

(a) violates the relevant national laws or regulations or the agreement between China and other states on maintaining confidentiality during execution of the project;

(b) conducts any actions, during execution of the project, endangering national security; damaging national interests; or violating national diplomatic policies or international conventions to which China is a State Party;

(c) carries out the launch activities beyond the limit approved by the license;

(d) conducts other actions in violation of the present measures.

Article 17 With respect to a project for which the license is withdrawn, the applicant for the project shall not, within two years as of the withdrawal, file a second application for a license regarding the same project.

Article 18 Where, due to a licensee's actions, any content of the project is changed, or the project is delayed or cancelled, thus resulting in expenses in relevant aspects, the corresponding liability and the expenses to be borne shall be clarified in the contract by the licensee and the concerned parties.

Article 19 A licensee must comply with the relevant national regulations to insure himself against liability incurred in respect to damage or loss suffered by third parties and against other liability incurred by launching a space object.

Article 20 For a project being executed in a domestic launching site, the licensee shall, six months prior to the scheduled launch, report the launching plan of the project to the COSTIND.

The licensee shall, before commencing the working phase in a launching site, file an application to the COSTIND for approval to release the project from the factory, and provide:

(a) documents on technical conditions of the launching vehicle, quality control, flight test outline, security and confidentiality, and other required documents;

(b) copies of the effective insurance policy of third party liability for the project, copies of the relevant documents (in triplicate), and copies of the relevant effective insurance policies (in triplicate). In exceptional circumstances, written documents shall be provided to the COSTIND and shall be dealt with specifically.

The working phase in a launching site of the project shall not commence until it has been approved.

Article 21 For a project being executed in a foreign launching site, the licensee shall, sixty days prior to the scheduled date for launch, file an application to the COSTIND for approval to release the project from the factory, and attach copies of the final documents (in triplicate) legally binding in respect of the liability insurance for third parties, the relevant insurances, security, confidentiality, etc., and shall not continue carrying out the project until it has been approved.

Article 22 A licensee must, within one month after the completion of a launch project, report to the COSTIND in writing on the accomplishment of the project.

Article 23 The COSTIND shall supervise and irregularly inspect the carrying out of the approved projects, and the authorized officials shall have the right to be present and inspect the relevant activities during the carrying out of the project.

CHAPTER IV LEGAL RESPONSIBILITY

Article 24 A licensee shall have administrative penalties imposed in accordance with the law if he conceals the truth, practices frauds or damages the national interests during application or carrying out of the project. A licensee shall be held criminally responsible in accordance with the law if he commits a crime.

Article 25 If any person, natural or juridical, or any organization undertakes an unauthorized project without a license, the COSTIND shall order the cessation of the illegal activities. Persons or organizations so involved shall have administrative

penalties imposed in accordance with the law, or, if they commit a crime, shall be held criminally responsible in accordance with the law.

Article 26 An organ or an official, which examines the applications for licenses, and neglects its/his/her duties or abuses its/his/her powers during the examination and approval of applications, thus causing loss to the People's Republic of China, shall have administrative sanctions imposed, or shall be held criminally responsible in accordance with the law if it/he/she commits a crime.

CHAPTER V SUPPLEMENTARY PROVISIONS

Article 27 The competent authorities to interpret the present measures shall remain with the COSTIND.

Article 28 The present measures shall enter into force on December 21, 2002.

Annex

Number :

Application Form for Licensing the Project of Launching Civil Space Objects

Title of the Project :

Applicant :

Dates of commencement and end of the project :

Printed by the COSTIND

Date

Instructions

1. For the purpose of this form, the term "Legal Representative" means the legal representative of the applicant entity.

2. The term "superior competent authorities" means State departments or commissions which have administrative powers over the applicant entity or state-owned large-scale enterprise group controlling the applicant entity or the provincial, autonomous regional or municipal offices of the COSTIND; where the applicant is a natural person, the provincial, autonomous regional or municipal office of the COSTIND shall issue certificate and provide opinions.

3. Use additional paper if the column space for relevant information in this form is insufficient.

4. Use dark colored ink and make sure the handwritings are neat and clear. This form shall be submitted in triplicates.

Applicant Entity					
Registered Capital		Registered Name			
Legal Representative		Age		Gender	
Occupation		Title		Nation-ality	
Telephone Number		Fax Number			
Correspondence Address		Postal Code			
Contact Person for the Project		Telephone number			

Bank Name		Account number	

Entities involved in the Project and the work distribution			
Name of the Entity	Assumed work	Legal Representative	Remarks

2. Significance, goal of the project and foreign counterpart projects' status quo

3. Contents of the Project

The main use of the payload:

Parameters of the satellite entering the Earth orbit:

Section 2.02 Orbital parameters of the satellite:

Technical parameters of the designated launch vehicle:

Foreign-involved issues, if any:

Other matters to be clarified:

4. Conditions currently available (including the research level, information preparation and methods of scientific research)

5. Project Plan			
Main Working Phases of the Project			
Main working phases	Form of the completion of each working phase	Time consumed	Responsible Entity
Total time to complete the project			
Final form of the completion of the project			

6. Basic information of staff involved in the Project					
Name	Age	Title	Employer	Specialty	Work assigned

7. Opinions of the Applicant Entity

Signature of the Legal Representative

Seal

Date

8.Opinions of Superior Competent Authorities

Seal

Date

This is an Unofficial Translation of the Geospatial Information Utilization Promotion Bill. It is offered to the readership of the JOURNAL OF SPACE LAW as a convenience.

While this translation's title says the legislation is a "Bill," the Geospatial Information Law of Japan was enacted May 30, 2007, and has been effective since August 29, 2007. There were no differences between the bill and the enacted law. The Diet passed the law without amendment.[1]

GEOSPATIAL INFORMATION UTILIZATION PROMOTION BILL

Index

[1] Hiroshi Kiyohara, chief attorney, Musashi International Law Office, Tokyo. Mr. Kiyohara is admitted and licensed in Japan and the United States (New York & California). He served as an assistant judge for Tokyo District Court.

Section Three
Policies and Measures concerning Satellite Positioning (Article 20 and Article 21)

Supplementary Provisions

CHAPTER ONE

General Provisions

(Purpose)

Article One

The purpose of this law shall be to promote in a planned and comprehensive manner the overall measures and policies to advance the utilization of geospatial information by means of establishing the fundamental items of an appropriate policy for the utilization of geospatial information along with clarifying the responsibilities together of national and regional public organizations and establishing the fundamental principles concerning the promotion of geospatial information by recognizing that it is extremely important to promote high level utilization of geospatial information to successfully materialize an economic society which can operate for the rich and stable life of the citizens now and in future.

(Definitions)

Article Two

For this law, "geospatial information" shall be deemed information that is derived from the information of (1) or the same as the information of (1) and the information of (2).

(1) Information that indicates the location of a particular geographical point or area from the space above (includes information relating to the point in time which concerns such information). (Hereafter is referred to as "position information".)

(2) That information which is associated with the information of the preceding number.

Section 2 For this law, "Geo-information System" shall mean that system which makes it possible to understand or analysis geographically of geospatial information and is referred to as an information system that handles in a unified manner an electronic map derived from using an electronic computer on the geospatial information, which has been recorded by an electro-magnetic method (Termed an electro-magnetically recorded map. Hereafter will be referred as electronic map).

Section 3 For this law "base map information" shall become the fundamental point of measurement in order to establish the position of geospatial information for electronic maps and shall include the coast lines, the boundary lines of public facilities, administrative boundaries and other position information established by the Ministry of Land, Infrastructure and Transport ordinances (this shall be limited to that which matches the standards established by the Ministry of Land, Infrastructure and Transport ordinances) and shall be referred to as electro-magnetically recorded materials.

Section 4 For this law, "satellite positioning" shall refer to the information obtained from a signal which has been projected from an artificial satellite used for determining position and the information obtained concerning the time of the aforementioned position together with associated information such as change of path over time.

(Fundamental Principles)

Article Three

The promotion of geospatial information utilization, which includes such things as base map information, statistical information and image information for surveying, has to be taken into consideration as an absolutely necessary fundamental to healthy national economic development and improvement of the lives of citizens. The accurate appropriate maintenance and delivery of this geospatial information by means of electro-magnetic methods and the delivery of geographical information system, promotion of the use of technology like satellite positioning, development of human resources, strengthening and

maintenance of the necessary system of cooperation between the related agencies of national and regional public organizations and other policies and measures, are subjects which must be conducted systematically and comprehensively in line with these principles.

Section 2 In terms of the policy concerning the promotion of the use of geospatial information, a mutual contributing reciprocal relationship by which the geographical information system delivering a base map for using the geospatial information that can be obtained from satellite positioning, and satellite positioning that delivers stable geospatial information which can be used with the geographical information system must be taken into consideration, and the subject of focus should be to maintain an environment that enables utilization of high level geospatial information with combined geographical information system policies, measures, and satellite positioning policies and measures in effect.

Section 3 The policies and measures concerning promotion of geospatial information utilization must take into consideration the current situation which is fundamental to improvement of the lives of citizens and the healthy development of the public economy through the delivery of information regarding satellite positioning such as change of path, time, and precise position, and must be discussed focusing on ensuring a environment that enables stable enjoyment with service from highly reliable satellite positioning.

Section 4 The policies and measures concerning promotion of geospatial information utilization must contribute to the protection of wealth and the people, national life along with the promotion of conservation and maintenance, take into account national land use, plan for promotion of fire prevention measures, and effectively and efficiently manage public facilities by implementing and positively taking up pursuance around business, or administration of those national and regional public organizations.

Section 5 The policies and measures concerning promotion of geospatial information utilization must contribute to a higher level of these functions and efficient operation of the government in planning for improved transparency and mobility, com-

prehensiveness of policies and measures, multiple correction of map creation by means of the common use of geospatial information necessary for the various fields of government.

Section 6 The policies and measures concerning promotion of geospatial information utilization must contribute to improvement of the convenience of the citizens through actual delivery of the various services which use geospatial information.

Section 7 The policies and measures concerning promotion of geospatial information utilization with planning, in accordance with the environment, must contribute to continuous development, improvement of vitality in the economic society, higher and more efficient business activity, and healthy development and creation of various businesses which use geospatial information.

Section 8 In terms of the policies and measures concerning promotion of geospatial information utilization that must be discussed, consideration must be given to activating the capability of private businesses by making use of their originality and ingenuity, and proposals regarding technology in order to utilize geospatial information by private businesses.

Section 9 In terms of the policies and measures concerning promotion of geospatial information utilization that must be discussed, consideration must be given in order that national safety and the rights and profit of the individual are not harmed with expansion of the distribution of geospatial information.

(National Obligations)

Article Four

The national government in compliance with the fundamental principles of the preceding Article (hereafter referred to as "fundamental principles") has the responsibility to formulate and implement comprehensive policies and measures concerning the promotion of geospatial information utilization.

(Local Public Organization Obligations)

Article Five

The local public organizations, in compliance with the fundamental principles, has responsibility to formulate and implement comprehensive policies and measures concerning the promotion of geospatial information utilization which respond to the conditions of each area in line with appropriate burden sharing with the national government.

(Business Strengths)

Article Six

The details of surveying, creation of maps, or a geographical information system are the services which use satellite positioning and are performed by those businesses and other related providers in compliance with the fundamental principles. All participants shall strive themselves to deliver quality geospatial information, and along with the national government and local public organizations shall endeavor to cooperate in implementing policies and measures concerning the promotion of geospatial information utilization.

(Coordination of Strengths)

Article Seven

As a nation, the policies and measures necessary to strengthen the cooperation between these participants must be discussed by taking into consideration efficiently promoting geospatial information utilization by cooperating with the mutual partnerships planned between the research organizations of universities, business entities, and the national and local public organizations.

(Legislative Measures)

Article Eight

The government must take up legislative or fiscal and other measures that are necessary in order to implement policies and measures concerning the promotion of geospatial information utilization.

CHAPTER TWO

Geospatial Information Utilization Promotion Master Plan

(Formulation of the Geospatial Information Utilization Promotion Master Plan)

Article 9

The government must formulate a fundamental plan concerning the promotion of geospatial information utilization (hereafter referred to as the "geospatial information utilization promotion master plan"), in order to promote comprehensive planning of policies and measures concerning the promotion of geospatial information utilization.

Section 2 The particulars for the geospatial information utilization promotion master plan are listed below.

a) The basic directions with regard to the policies and measures concerning the promotion of geospatial information utilization.

b) Items relating to the policies and measures concerning the geographical information system

c) Items relating to the policies and measures for satellite positioning

d) In addition to the particulars of the preceding c), the items necessary in order to promote in a planned and comprehensive manner the policies and measures concerning the promotion of geospatial information utilization.

Section 3 In principle, the time period shall be established for the concrete goals of the policies and measures and their at-

tainment with regard to establishing the policies and measures for the Geospatial Information Utilization Promotion Master Plan.

Section 4 The Government, when the geospatial information utilization promotion master plan is formulated per the provisions of item a), must officially announce it without delay using the Internet and other appropriate means.

Section 5 The Government, at an appropriate time, will survey the conditions for attaining the objective established per the provisions of item c), and must officially announce the results using the Internet and other appropriate means.

Section 6 Mutatis Mutandis applies to the provision of item d), relating to changes in the geospatial information utilization promotion master plan.

(Maintenance of a cooperative framework of related government organizations)

Article Ten

The Government should take up measures necessary to maintain a system of cooperation by the related government organizations and other measures in relation to formulation of the geospatial information utilization promotion master plan and implementation of basic policies and measures.

CHAPTER THREE

Fundamental Policies and Measures

Section One General Provisions

(Implementation of Survey and Research)

Article Eleven

The national government shall formulate and implement the appropriate surveys and research necessary for the policies and measures concerning the promotion of geospatial information utilization.

(Dissemination of Knowledge)

Article Twelve

The national government should take up the necessary policies and measures to enlighten and disseminate knowledge and other policies and measures relating to geospatial information utilization in order to deepen the appreciation and understanding of citizens concerning the importance of geospatial information utilization.

(Development of Human Resources)

Article Thirteen

The national government should take up the policies and measures necessary to develop human resources having the specialized knowledge or technology for promoting geospatial information utilization.

(Government Utilization of Geospatial Information)

Article Fourteen

The national government and local government public organizations should take up the policies and measures necessary to plan improved convenience for citizens relating to the promotion of geospatial information utilization along with improving the variety of services, quality, and other aspects in the public field as well as the expansion of the utilization of the geospatial system to efficiently manage government administration and business, and be conducive to sophisticated functionality.

(Protection of Personal Information)

Article Fifteen

The national and local public organizations should take up the policies and measures necessary for citizens to be able to use geospatial information appropriately and with assurance, maintaining the appropriate handling and protection of personal information, in order to display base map information maintaining its reliability, quality, and other aspects.

SECTION TWO

Policies and Measures for the Geographic Information System

(Maintenance of Base Map Information)

Article Sixteen

In terms of the technology for the maintenance of base map information, the national government shall establish a standard in order to plan for the dissemination of the geographic information system by promoting common use of base map information.

Section 2 In order for the national and local public organizations to attain the objectives of the preceding item, the policies and measures should be addressed which are necessary for the maintenance of base map information which matches the

standard of the technical basis of same preceding item, appropriate timing of renewal, and other aspects.

(Mutual Utilization of Base Map Information for Map Related Affairs)

Article Seventeen

The national government and local government public organizations shall endeavor to utilize reciprocally base map information, which is already maintained with regard to areas that become objects of the map, when creating maps in order to implement administration or business for executing use of the map for each necessary government field such as city planning, management of public facilities, agricultural land, management of forests and other resources, cadastral surveying, title registry of real estate, taxes, statistics, and others.

(Smooth Circulation of Base Map Information and other information)

Article Eighteen

The national government and local government public organizations should take up the policies and measures in consideration of base map information being conducive to high level utilization of geospatial information which can be used for the whole society and that is deemed necessary for constructive delivery of base map information, statistical information, and electro-magnetically maintained image information for surveying, and delivery and smooth circulation of geospatial information.

Section 2 The national government shall in principle deliver base map information such as it possesses free of charge using the internet.

Section 3 The national government, in addition to the preceding item Two, shall take up policies and measures as necessary in order to accelerate the utilization of geospatial information by citizens and businesses, to provide technical advice, to deliver information, and others.

(Promotion of Research and Development for the Geographical Information System)

Article Nineteen

The national government shall take up policies and measures as necessary in order to plan development of the geographical information system to accelerate the development and research, conduct prompt evaluation, disseminate the results, and other aspects.

SECTION THREE

Policies and Measures for Satellite Positioning

(Liaison and Coordination for Satellite Positioning)

Article Twenty

The national government should take up policies and measures as necessary in order to promote utilization of geospatial information by efficiently maintaining an environment that makes it possible to enjoy sustainable service by highly reliable satellite positioning.

(Promotion of Research and Development for Satellite Positioning)

Article Twenty One

The national government should take up policies and measures as necessary in order to promote utilization of geospatial information which can be obtained by satellite positioning, promote the demonstration in relation to research and development for satellite positioning, technology, and utilization possibilities along with the limitations for accelerating the utilization of satellite positioning based upon the outcomes of the research conducted.

SUPPLEMENTARY PROVISIONS

This law shall be implemented as a designated government ordinance within 3 months from the date of official announcement.

GROUNDS

In consideration of it being of extreme importance to promote high level utilization of geospatial information to successfully materialize an economic society which can operate for the rich and stable life of the citizens now and in future, it is necessary to establish the items that are fundamental to the policies and measures relating to the promotion of geospatial information utilization, along with clarifying the responsibilities together of national and regional public organizations in establishing the fundamental principles concerning the promotion of geospatial information in order to determine the policies and measures to promote geospatial information utilization in a planned and comprehensive manner. These are the grounds for submitting this bill.

BOOK REVIEW

DIREITO E POLÍTICA NA ERA ESPACIAL: PODEMOS SER MAIS JUSTOS NO ESPAÇO DE QUE NA TERRA? (LAW AND POLICY IN THE SPACE AGE: CAN WE BE MORE JUST [OR EQUITABLE] IN SPACE THAN ON EARTH?)

By José Monserrat Filho

Reviewed by Sylvia Ospina*

A book on space law is rare. A book on space law in Portuguese is even rarer. A book on space law that is in very readable prose (if you can read Portuguese), that is instructive and made entertaining with occasional touches of humour is a rarity indeed! That is what we have in José Monserrat Filho's book, "Direito e Política na Era Espacial: Podemos ser mais justos no espaço de que na Terra?", "Law and Policy in the Space Age: Can we be more just [or equitable] in Space than on Earth?" published by Vieira & Lent, Rio de Janeiro, Brazil, in July 2007.

The book is divided into 12 chapters, the topics of which flow from one chapter to the next, yet each could stand alone as a monograph. A real plus is the inclusion as annexes of the 5

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outer space treaties and 5 Principles adopted by the United Nations General Assembly (UNGA), which constitute the core of space law. Also included in the annexes are several Declarations of the UNGA, (e.g., on the use of nuclear power sources in Space; on cooperation for the benefit and in the interest of all States, but particularly for developing countries; Declaration on the Right to Development). The November 2004 Buenos Aires Declaration on Cooperation in Space Law, drafted by the author and by Maureen Williams, is also included in the annexes.

This book is more than just an analysis of the background of space law, and the salient articles of the space treaties and Principles. It is a very strong critique of the increasing privatization of space activities, their commercialization, and the ever-growing influence of the private sector in these endeavors. The close relationship between government and corporations involved in defense work is not new—President Eisenhower warned against the growing "military-industrial complex" in the 1950s. This relationship has deepened in the last 15-20 years, resulting in governments in many countries being beholden to foreign corporations and their economic influence in all phases of national life. The current depth and extent of this relationship is highlighted by numerous quotes from prominent economists from various countries. These economic authorities, as well as Monserrat, question whether these relationships are ultimately good and for the benefit of humankind (one of the tenets of space law), or whether the economic well-being of shareholders and CEOs is the primary goal.

The author stresses the need to use the resources in space (especially remote sensing satellites) to better monitor the global changes that humanity is causing, and to apply this knowledge for the benefit of humankind, for the economic and social development of nations. Are these goals incompatible with the basic philosophies of corporations, whose major "raison d'être" is profit-making for their shareholders? To an extent they are, but the author also notes that, despite corporate economic and political power, the governments are still the ones who draft and enact the laws. The increasing tension between corporations (economic goals) and space policy (for the benefit of

mankind and for development) is presented in a challenging manner throughout the book.

The first two chapters serve as an introduction to the development of space law, which came about as a result of the Cold War, and the race to space that began with the launch of *Sputnik* in October 1957. As the author notes, *Sputnik* was not just an inoffensive emitter of beeps; in reality it was the first intercontinental ballistic missile, which put the world on notice that the U.S.SR could send missiles anywhere around the world. Thus, the Space Age was born into a military milieu, and the militarization of outer space continues, even though outer space itself until now has not been used as an arena for armed conflict or war. However, as Monserrat notes, the Chinese destruction of a satellite in orbit in January 2007 has changed this, and given rise to a new arms race: the production of anti-satellite weapons in several countries.

Due to *Sputnik's* potential reach (as an intercontinental ballistic missile), serious international legal and policy issues arose: these were the seeds for the development of space law. In the late 1950s, the basic principles and resolutions which became the core of space law were drafted by the UN's newly established Committee on the Peaceful Uses of Outer Space (UNCOPUOS) and adopted with "cosmic speed." But like the Moon, they have a dark side and a light side. Fifty years later, like the Moon's craters, some lacunae in space law are visible, and have yet to be filled. The fundamental concepts, namely that space is to be used for the benefit of all humankind, and that outer space cannot be appropriated by any country still prevail, even though they may be under attack by those who want to privatize and commercialize most space activities.

Chapter 3 has an interesting title: "Space Law of the Planet Earth." This chapter highlights the principle points – and lacunae-- of the Outer Space Treaty. The author's basic argument is that space law isn't concerned only about outer space; rather, it has more to do with activities on Earth, and the need to protect and safeguard our planet. Early in the Space Age, threats to our existence came from the weapons developed during the Cold War. Nowadays, we are threatened by global climatic changes, which can be monitored from outer space. Monserrat urges the

creation of new cooperative programs to make better use of the information gleaned by Earth observation satellites, and cites some new initiatives, such as the Group on Earth Observations (GEO) work to establish a Global Earth Observation System of Systems (GEOSS), whose aim is not only to monitor the Earth, but to better understand the interaction of the Earth and its basic elements – water, climate, atmosphere. The author stresses that what is needed is the political will to take adequate measures and to implement them, with the aim of safeguarding our planet.

Chapter 4, "More Justice in the Skies than on Earth?" continues with the theme of the previous chapter—that space law is firmly anchored in terrestrial concerns. One question that arises is whether space law is adequate to attain values that will inspire a particular legal order; the author states that the answer is a YES! Monserrat notes that no State has renounced the principles enunciated in the Outer Space Treaty, despite some gaps and the need for more precise definitions to respond to the issues raised with the growing privatization and commercialization of space activities, as well as its increasing militarization, or "strategic use." Monserrat notes that we need to change our behavior patterns, to minimize global warming and other changes that we are causing on our planet. While space technology is essential to make more rational use of our terrestrial resources, Monserrat stresses that a more rational and equitable order needs to be established in the use of space as well.

One concern raised in this chapter, and expanded upon in chapters 5 and 6 is the increasing role of private corporations, whose reach influences international relations, foreign policies, and the global economy. The author cites several economists, among them John K. Galbraith, who stated that although corporations are an essential fact of modern life, they need to be restrained, and should act in conformity with certain rules. The author elaborates on the growth of the "military-industrial complex", pointing out that in the last few years, in the United States there has been a notable reduction in the number of corporations involved in the defense sector, as they have merged with one another, been acquired, or otherwise consolidated into a handful of very powerful corporations, such as Lockheed-

Martin and Boeing. While ostensibly these mergers reduce costs, they also stifle innovations, and eventually lead to higher program costs.

While these "mega corporations" do not overtly challenge the fundamental principles of space law, they closely follow the activities at UNCOPUOS and the International Telecommunication Union's (ITU) Radio Conferences and other meetings, impeding any substantive modifications to the treaties or principles, thereby stalling meaningful progress, by arguing, for example, that no definition or delimitation of outer space is necessary; or that placing weapons in outer space is not contrary to the principles of the Outer Space Treaty. This could lead to disregarding a basic principle – that space activities should be conducted for the benefit of humankind, and not only for private corporate gain. Because of their close relationship with the legislators, Monserrat stresses that it is important to have some mechanisms in place to ensure that the common good or public interest is not replaced by corporate objectives.

The issues of the growing privatization and growing influence of private interests in space activities have been studied at many international legal fora that have concluded that there needs to be a counterbalancing policy, to ensure that the common good prevails. With the blurring of national borders, it is more difficult to assign responsibility as well as liability for space activities, resulting in corporations supplanting the State's authority. The author urges greater international governmental cooperation and action, to regulate the global economy in a more democratic manner. Monserrat quotes the eminent space jurist, the late Manfred Lachs, who stated that it is essential to remain faithful to the main objective of space law, i.e., to serve the interests of all nations, for the protection of life, both on Earth and in space, and to assure international peace and well-being.

Chapter 7, "Acts of Aggression in Outer Space" poses important questions that need to be taken into account, to understand and to prevent the U.S. Government's plan to further militarize space, and convert it into a war theater, albeit as part of a strategic defense plan. The first question posed is: why be concerned by aggression in outer space today? Even though in the last 50

years, there has been no act of aggression from outer space, the U.S. is keen on its continued militarization or weaponization, on developing new space-based anti-missile, anti-satellite defense systems, capable of knocking out other countries' satellites. The current Bush Administration is intent on developing these new systems, as a preventive measure, to preempt other States from shooting down U.S. satellites, which are vital to the U.S.A's economic and political life. But, as the author points out, the U.S. could be the first victim of its own strategic plan, since it is no longer the only space power. (China, Russia and other nations have the potential to destroy satellites in orbit).

Rather than create a safer environment, these space-based defense systems lead to uncertainty, and to higher costs of doing business in space, dissuading further investments, and negatively impacting on the whole space sector. Before continuing on this course, Monserrat urges that the legal implications of space-based defense systems be considered, because space activities are now fundamental to all human activity. (The author cites John Logsdon, of George Washington University's Space Policy program, who stated that if the U.S.'s Global Positioning System (GPS) were to malfunction, all kinds of terrestrial systems that rely on GPS, ranging from dispatching emergency vehicles to banking, would be affected).

Another issue raised in this chapter is what would be the consequences of a "Pearl Harbor" in space? While the United States tends to overestimate the threat posed by other countries, a first or preemptive strike could come from any country that believes it has sufficient power to challenge the U.S. Thus, the U.S.'s quest for dominance in outer space is leading to an untenable situation and creating insecurity throughout the world.

The author notes that since 1998, the U.S. and other nations have blocked negotiations on disarmament, and the U.S. has renounced certain treaties (the ABM Treaty), removing (for itself) legal barriers to placing weapons in space. The U.S. refuses to sign any agreement that might limit its testing and placing weapons in space, claiming its right to protect its space-based assets; it no longer pretends that its activities are "consistent with its treaty obligations". The Russians and Chinese are

studying the possibility of constructing their own anti-satellite weapons, even while their delegations to UNCOPUOS have proposed a new treaty that would prohibit weapons in space, aiming to put an end to this new arms race in space. Yet, most States engaged in space activities emphasize the importance of ensuring that space be used for peaceful purposes, whether scientific or commercial. But without the cooperation of the U.S., any plans to achieve some transparency in outer space and to prevent an arms race in space will go nowhere.

Another question raised in Chapter 7 is whether international law has any "weapons" which can be used to counter acts of aggression in space. Monserrat presents a detailed analysis of what constitutes hostile use of force, and whether in the air, the high seas or in outer space, it is deemed to be an illegal act of aggression, according to the principal sources of international law, including the UN Charter, the Outer Space Treaty, and various UNGA Resolutions, which prohibit the placing of weapons of mass destruction in outer space. All these legal foundations, however, do not seem to be sufficient to deter any act of aggression in space. Thus, another Resolution, 61/68 (2006) on the "Prevention of an arms race in outer space" specifically addresses this issue, but the author notes that it is necessary to adopt new measures to verify compliance with these Resolutions.

The issue of prohibiting anti-satellite weapons has been debated for more than 20 years, both at the UNGA and at Unispace II (1982), and several proposals have been made, but none has been adopted. These past efforts, however, could be valuable resources for today's debates on the same topic, namely, to prevent the militarization of outer space.

The last question posed in this chapter follows from the previous one: "How to establish broad yet solid legal guarantees for peace and security, to prevent acts of aggression?" One way would be to consider a war in space as against the principles of international law, and thus the negation of any principle of justice and law. The law has to be seen as a series of regulations aimed at maintaining peace, and peace is the absence of war. Where law prevails, peace can eventually prevail, since law is the antithesis of war.

Monserrat suggests that a new treaty be drafted, which would include principles on non-proliferation of weapons; security and cooperation in outer space; protection against missile attacks; the prohibition of using space for military (defense) purposes, which would entail destroying existing anti-satellite weapons. A treaty of this nature would ensure that outer space is used for peaceful purposes, for the benefit of all nations, and that it is maintained as a "*res publica*", or common good.

Chapter 8 addresses the issue of space debris, what to do with it, what measures can be taken to mitigate and minimize the dangers posed by the increasing amount of space debris, so that future space activities will not be at risk, a risk created through time by humans themselves. As the author notes, unfortunately, humankind is notorious for its abundant production of trash.

One of the major problems with space debris is the number of untrackable objects and fragments which are in random orbits, creating the risk of collisions with objects in orbits, and that can be tracked. Small fragments present even greater risks, due to the high velocity at which they are traveling. As more objects are launched to outer space, the amount and dangers of space debris also increase.

Several organizations, such as the Inter-Agency Space Debris Coordination Committee (IADC), and the ITU have formulated recommendations to minimize space debris, to remove satellites that have reached the end of their useful life in orbit, and place them in other orbits where they will not present a hazard to operational spacecraft.

Another important document came out from the International Law Association (ILA) meeting in Buenos Aires, Argentina in 1994, wherein certain terms are defined. The ILA's endeavors became the cornerstone for the 1996 COPUOS's "Declaration on International Cooperation", which aims at regulating space debris. The IADC also drafted some regulations which were submitted to COPUOS in 2002, and after arduous debates, they were adopted by COPUOS's Scientific-technical Subcommittee in February 2007. This is the first specific result of much discussion since 1999, when COPUOS published its "Technical Report on Space Debris." A great effort was made to have this

item included on COPUOS's agenda for 2008, but the necessary consensus was not achieved.

Specific recommendations for the reduction of space debris, to minimize the hazards presented by these objects include: reducing the number of objects or components ejected at time of launch; minimizing the risk of accidental disintegration during operational phases; limiting the possibility of in-orbit collisions; not engaging in the intentional destruction of objects in space. Also, avoid having objects remain in low Earth orbit(s) at the end of their useful missions; these objects should be de-orbited in a controlled fashion, or placed in other orbit(s). This same recommendation is made for spacecraft in geostationary orbit; these are usually placed in a much higher ("graveyard") orbit.

As the author notes, not just space agencies or launching corporations are worried by the hazards of space debris; other organizations are also concerned. The International Association for the Advancement of Security in Space (IAASS), a NGO established in the Netherlands in 2004, suggested the creation of an entity similar to the International Civil Aviation Organization (ICAO), which would draft and enforce measures and regulations regarding space debris. The aim is to protect the billions of dollars invested in communication, remote sensing and scientific satellites currently in orbit, and future objects launched to space. This proposal was presented to the highest level global economists at the G-8 meeting in Germany in June 2007, but seemed to fall on deaf ears. If the issue of space debris is not addressed now, and no measures taken to minimize them, future solutions may result in even more expensive "cures" to solve this growing and hazardous problem.

The following three chapters deal with space and national development; development and human rights and cooperation in space, and with remote sensing data and national development. They examine the growth of the legal basis of development law, and the right to development, topics that have been under consideration since the 1960s, when the New World Economic Order (NWEO) was first proposed. Few initiatives have generated as much discussion and debate, fuelled in part by the growing awareness of developing countries that they have a right to develop, and to benefit from scientific and technological progress.

Further, these issues have been discussed at many conferences, and numerous UN Resolutions and Declarations attest to the benefits that would come from sharing this progress in a more equitable manner.

The author presents a very detailed historical analysis of the right to development, and the many initiatives that have been undertaken to achieve a more equitable development process, but notes that most developing countries are still highly dependent on a few industrialized countries, particularly when it comes to obtaining data and information gathered by remote sensing or Earth observation satellites. (Since its creation in1964 , INTELSAT provides satellite communications to most countries, and many nations have their own national satellite systems).

As was noted in an earlier chapter, all countries now depend on space resources, not only for communications but also for development. Having a national satellite is no longer an issue of prestige, but a necessity for development, according to South Africa's Minister of Science and Technology, as quoted by Monserrat. The author notes, however, that it is not enough to have a satellite in orbit; what is needed is the development of infrastructure, so that all countries can process geospatial data and images, and use this information for their economic and social development.

The value of these chapters lies in the author's alluding to the social and economic development of so many sectors, and the extent to which all rely on satellites for their continued growth if not existence. Economic development and social progress should be concerns of the whole international community, and at the same time that economic prosperity is achieved, they should contribute to reinforcing peaceful relations and cooperation among countries. This statement, made during the first UN Conference on Trade and Development in 1964, is still valid today. This sentiment is also reflected in the 1967 Outer Space Treaty, and in the Moon Treaty. The "common heritage of mankind" principle embedded in the Moon Treaty is basic to development, even though it is not widely accepted.

Another value of these chapters is their tying in development in space activities with terrestrial development, and not-

ing that so many more countries are involved in space activities; space is no longer the purview of just 2 or 3 industrialized countries. As Monserrat stresses, however, what is needed now is the development of national capacity to analyze and use the information obtained from space, tailored to the needs of each State. While space needs to be used for peaceful purposes, it also needs to be used for national political and legal development. Space law at present maintains the status quo among nations, but also maintains the disparity between the industrialized and the developing countries. Unless space law becomes an essential component of national development, the gap between these countries will continue to grow.

UNCOPUOS must take the lead in bridging this gap, and several proposals have been made to do so. Brazil, in particular, proposed a new agenda item, to be studied over the next years, on "International Cooperation and the Use of Geospatial Data for Sustainable Development." The objective of this proposal is to stimulate international cooperation in the creation of a national infrastructure that can obtain, analyze, and use geospatial data as an instrument for sustainable development. Much of the data has high commercial value, not only for the country subject to sensing or observation, but also for other nations.

In order to achieve wider dissemination of the data, Brazil recommends that "open code software" be made available, to create a global and accessible network. According to Monserrat, open code software is the key to the success of international cooperation, and would become an integral component of sustainable development.

How to achieve these goals? The last chapter, "The Future of Space Law" includes specific proposals to attain them, as well as to ensure that space law is able to meet the needs of the space age of the 21st century. The current paralysis at UNCOPUOS must be overcome; this organism needs to be revitalized, and the five space treaties and Principles need to be updated, to take into account the new and different players and activities in space. National space legislation also needs to be drafted, and perhaps new regulations will fill some of the lacunae in current international space law. Areas that should be subject to some regulation include the delimitation/definition of

outer space; space tourism; space debris; space traffic management; GPS and similar systems; commercialization of space; prevention of placing weapons in space; using satellites for the prevention or at least mitigation of natural disasters on Earth.

Ultimately, space law is international law, and greater cooperation among nations is needed. To achieve this, the author also suggests that an International Space Organization be established, which would serve to coordinate national and international efforts related to space activities, that need be regarded as essential public international services. At the same time, more people need to be made aware of the importance and relevance of space law as a means of regulating space activities for the benefit of all countries and mankind.

This book makes some very interesting and worthwhile proposals and recommendations, which should be heeded if space law is to progress beyond the treaties and principles drafted 40 years ago. Perhaps because satellite communications have become so ubiquitous, we tend to take them for granted. But Earth observation or remote sensing satellites could play an equally important role in the economic and social development of most countries. The author's focus on these could serve as a "wake up call" and be the basis for major changes in access to and use of geospatial data and its dissemination for the benefit of humankind.

It is gratifying to note that this excellent book was written by an eminent space lawyer from a "developing country", thus providing the legal community with a different perspective on the issues of space activities, space law, and their impact on national development.

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