AN INTRODUCTION TO SPACE LAW FOR DECISION MAKERS

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This presentation provides an introduction to space law for decision makers, and was delivered by Dr. Jacqueline Etil Serrao in Spanish at the *Latin American Aerospace Experience: Agenda of Aerospace Activities for Colombia* seminar held in Medellín, Colombia on June 25, 2004. The seminar was organized by the Civil Aviation Authority of the Government of Colombia in coordination with the United Nations Office of Outer Space Affairs, the European Space Agency, the Colombian Chancellery, and the Colombian Agency for International Cooperation. The presentation is based on one delivered by Prof. Joanne Irene Gabrynowicz at the November 2003 United Nations/Republic of Korea Workshop on Space Law. The adapted presentation is published here in English, Spanish and French.

Good morning. I am Dr. Jacqueline Etil Serrao, the Associate Director of the National Remote Sensing and Space Law Center at the University of Mississippi School of Law. Today I will be talking about "Space Law: Advances and Perspectives". Most of this presentation was originally written and presented by the Center's Director, Professor Joanne Irene Gabrynowicz, at the 2003 United Nations - Republic of Korea Capacity Building Workshop on Space Law. The workshop was organized by the U.N. Office of Outer Space Affairs. The participants were

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the policy and decision makers from space faring, newly-active space faring and developing nations. Some of the material here also appears in a recent Suffolk University Law Review article written by Prof. Gabrynowicz.

The body of international space law consists of treaty law and customary law. The four core treaties are:

1. Treaty on Principles Governing the Activities of Status in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies (Outer Space Treaty)

2. Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (Rescue Agreement)

3. Convention on the International Liability for Damage Caused by Space Objects (Liability Convention)

4. Convention on the Registration of Objects Launched into Outer Space (Registration Convention)

These four treaties are widely accepted by a large number of States. However, the following fifth treaty is not:

5. Agreement Governing the Activities of States on the Moon and other Celestial Bodies (Moon Treaty)

Additionally, there is a series of principles that were adopted by the United Nations General Assembly. Each set of principles has varying weight at international law. International space law also consists of custom and practice. The Outer Space Treaty specifically references international law and the Charter of the United Nations. It also means that nations have international responsibility for all public and private space activities. Taken together these all constitute the body of international space law.

Let's talk about the principles of space law. As a whole, international space law consists of a number of important fundamental principles. First, the Outer Space Treaty functions like a constitution. For example, it sets out the general principles that are the basis for all of space law. These principles include the concept that space shall be the "province of all mankind". This

means that all nations have the nonexclusive right to use and explore space. The "province of all mankind" is not the same thing as the "common heritage of mankind" which is contained in the Moon Treaty. This will be discussed later. Other important, fundamental principles are the non-appropriation principle; the "peaceful purposes" principle; liability; and the principle that nation-states are responsible for the space activities of their nationals.

The "common heritage" principle refers to the potential extraction of resources, and resource allocation. The "province of mankind" principle addresses exploration and use. Under the "province of all mankind" principle, all nations have the nonexclusive right to use and explore space. In order to understand the difference between the two principles, I offer an analogy. On the high seas, all nations have the right to have their ships travel across the oceans. They also have the right to extract fish from the oceans. Once the fish are on the ship's deck, those fish are the ship's resources. In space, by analogy, Nations have the right to have their spacecraft move in space ("province of mankind"), but agreement has not been reached as to whether nations can extract resources ("common heritage").

These two principles are not interchangeable although some observers argue that they are. The "province of all mankind" is based on the *res communis* principle: the thing belongs to all. This means all nations have the right to use and explore. It is an inclusive principle, not an exclusive one. Space may be used in parts, but it cannot be acquired.

All nations have free access to all areas of space and the celestial bodies on the basis of equality. All nations have the right to use and explore space. Examples of use include Earth observations and communications. Exploration includes the *Apollo* missions, robotic missions of near-Earth space, and exploration of other bodies like Mars.

Article II of the Outer Space Treaty provides that "[o]uter space, including the moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means." When Christopher Columbus came to North America, he claimed it for Spain. The law at the time recognized that if a State claimed land and

could control it, it became that Nation's territory. Neil Armstrong also placed a national flag on the Moon, but unlike Columbus, it was not an exercise of sovereignty and not a claim of the Moon. The law had changed. The flag placed by Columbus signified a sovereign claim by Spain of new territory. The flag placed by Armstrong signified a national achievement, not the acquisition of territory.

"Peaceful purposes" is a term of art and has a long history in space law. It goes back to the first resolutions in the United Nations regarding space. The early debate focused on what does "peaceful purposes" mean? Two definitions were in competition. The first was that "peaceful purposes" means "non-aggressive". The second was that "peaceful purposes" meant "non-military". The "non-aggressive" definition has been accepted for two reasons:

First, both the Soviets and the United States had a military presence in space from the beginning. To say that "peaceful purposes" meant "non- military" contradicted the facts. Second, during the Cold War, important military activities created stability. For example, both the Soviets and the United States had reconnaissance and surveillance satellites that enabled them to know what each other was doing to some degree. This decreased the need to take first strikes and helped stabilize the geopolitical environment.

"Peaceful purposes" also means the prohibition of specific weapons in open space. These include nuclear weapons and weapons of mass destruction in open space. "Weapons of mass destruction" include atomic, biological and chemical weapons. Outer space and celestial bodies are two different things. Celestial bodies are exclusively peaceful which implies even further restrictions than what is in place for open space.

There are some military activities which are legal. There are also some activities which are prohibited. Legal activities include scientific research, peaceful purposes and using equipment and facilities that are necessary to carry out scientific and peaceful activities. Prohibited activities include military bases, installations, fortifications, weapons testing, and maneuvers.

While it may seem obvious to say that there is a liability regime for space, that wasn't always so. In the early days of

space activities, it was not clear that nations could be held responsible for their actions in space without a specific system that held them responsible. Therefore, the Liability Convention was put in place. It provides for a dual liability regime. Absolute liability applies to damages that occur on Earth and to aircraft in flight. Absolute liability means that it is not relevant whether or not the potential defendant was at fault. It is still responsible. If the damage occurs in space, then negligence applies. The space liability regime includes a number of mechanisms to allow for the allocation of liability among joint actors. They include joint and several liability, indemnification, and apportionment. Finally, the treaty regime provides a claims process which includes the establishment of a claims commission and specific rules for compensation.

International space law provides that nations have international responsibility for all public and private space activities. For example, United States commercial remote sensing companies are licensed by the United States Government so they can be supervised as required by international space law. Space law recognizes international intergovernmental organizations. One example is the European Space Agency (ESA) which is a highly successful regional space organization. It was established by a treaty, the ESA Convention, in 1975.

Finally, the Secretary General of the United Nations has a designated role in a variety of circumstances. For example, under the Liability Convention claims may be presented through the Secretary-General. Under the Registration Convention, a signatory nation may request information through the Secretary-General about a space object that has caused damage. Under the Rescue and Return Agreement signatories must inform the Secretary-General of accidents and emergencies including ones that involve the global commons (i.e., an ocean, Antarctica).

Despite the fact that there are five treaties, customary law, and United Nations principles, there are many questions which have yet to be answered. The following are some questions that are open because there is no consensus in the international community.

- Although there is no sovereignty over territory, it is unclear if there is no sovereignty over resources: does prohibition of territorial appropriation include resources?
- Is resource taking a "use" of space?
- Is sovereignty necessary to establish property rights?
- Does the prohibition of national appropriation prohibit property claims by an individual, an intergovernmental organization, or a corporation?

The most controversial example of unresolved issues is the issue of the use of resources in space. To develop consensus there will have to be the political will to develop a consensus that Nations accept.

Another controversial issue is whether the treaty regime should remain as it currently is. Both the established and newly-active space faring nations agree that a new stage of space law development has begun. However, there are differing opinions as to the best approach to be taken to direct the development process.

Some countries, including Russia, think these provisions are inadequate because they do not address all possible situations. Nations that believe the regime is lacking and beyond development through strengthening and amending the existing instruments have suggested that a new, comprehensive treaty should be negotiated.

They see this as the logical way to successfully meet the changing needs of space activities. They argue that nations are choosing not to participate in the existing treaties due to the uncertain and changing interpretations of their terms.

Other countries say that the system answers these questions by allowing the amendment or expansion of the current treaties. Other nations see the existing legal regime, including the treaties, as both adequate and as providing the foundation for further legal development. They are of the view that encouraging adherence to the existing treaties is the more practical way to achieve development. Nations holding this view also raise related procedural issues including the argument that consideration of a comprehensive treaty is beyond the compe-

tency of the United Nations Committee on the Peaceful Uses of Outer Space and its Legal Subcommittee. Finally, they argue that since nations continue to join to the existing treaties, the current regime is a viable one.

An evolving list of nations on each side of the debate shows that, with the exception of Russia, the more established space nations are against a new, comprehensive treaty. The list includes India, Japan, and the United States. On the other side are nations with no, few, or recent, space capabilities. They include Bulgaria, China, Iran, and Greece.

Some nations with mature ground segments for remote sensing, Earth observations and other space activities, but without indigenous launch capability, hold a center position. Morocco and Australia, for example, have some concern regarding the uncertainty in some of the treaties but would only go so far a supporting a review and clarification of the treaties themselves.

All of the groups acknowledge that there is a need to elaborate common legal rules or standards. They also agree on the reasons why further development is necessary. These include technological changes and the increased commercialization of space.

The debate on a new comprehensive treaty requires careful consideration of what can be lost or what can be gained. Whatever limitations, challenges, or difficulties exist in space law, the real problem is not just the law itself. The real challenge is forming the political will to address the law.

Thank you all for being so patient with my Spanish. If you have any questions, please email the Center's Director, Professor Joanne Gabrynowicz or myself at jgabryno@olemiss.edu or jserrao@olemiss.edu. Thank you for your time.