

RECENT DEVELOPMENTS IN THE SOVIET-AMERICAN DIALOGUE ON THE LAW OF OUTER SPACE

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THE FORMATIVE PERIOD 1957-1966

With the launching of the first artificial satellite, Sputnik I, by the Soviet Union in 1957 the Soviets as well as other nations came to regard it as a practical necessity to earnestly strive toward agreements on various aspects of the legal regime of outer space. To this end Soviet jurists developed what they put forward as fundamental principles of the new branch of international law known as space law. However, just as among non-Soviet jurists, there were considerable divergences among them in respect of interpretation, application and definition of these fundamentals, as C. Wilfred Jenks has noted.¹ Apparently Marxism-Leninism did not provide pointers to and through the stars.

Most of the Soviet literature was in article form, appearing in the Soviet Yearbook on International Law, the journals Soviet State and Law, and International Affairs. There were prior to 1966 few books devoted to space law. Among these the most noteworthy were, "The Way to Cosmic Law" (1962) by Kavalev and Cheprov's "The Cosmos and International Law", edited by Korovin (1962), and Zhukov's, "The Cosmos and International Cooperation".

In 1966 two major books on space law were published and a steady although hardly torrential flow of articles has followed. Taking the advent of these two books as ushering in a period of clarification of their earlier views. I will address the rest of this article to an analysis of the 1966-1970 literature. Reference to both the

earlier Soviet writings as well as to non-Soviet views on the issues raised will be made so as to indicate continuity or the lack thereof in the more recent writing. However, it should be noted that the pre 1966 Soviet literature has been well analyzed by such eminent authorities as C. W. Jenks, Ivo Lapenna, Robert Crane and Robert Woetzel.

1 — Airspace v. Outer space

Perhaps the threshold problem in a theoretical sense which the flight of Sputnik I highlighted was that of the extent of the underlying state's sovereignty over air space above it.² In other words, where does air space end and outer space begin? Today no state claims sovereignty upward of its territory to infinity. Yet there is no agreement as to the upper limits of sovereignty over national territory. The Soviet jurists have expressed various views on this and there has been over time a changing or modification of positions. In 1955, V. I. Lisovsky wrote that air space extended over the stratosphere — that is, 11 to 75 kilometers above the surface.³ A. Kislov and S. Krylov went beyond this limitation in 1956. They claimed that unlimited sovereignty — *usque ad coelum* — applied.⁴ The international law text edited by F. I. Kozhevnikov in 1957 took the Lisovsky position.⁵

Robert Crane explains the rejection of the *ad coelum* doctrine in 1957 as a reflection of the Soviet's need to whitewash the charge that their 1957 Sputnik launching and flight violated the air space of other nations.⁶ The earlier Lisovsky "ceiling" concept was espoused by G. Zadorozhny, who substituted the maximum ascent ceiling of present day air craft instead of Lisovsky's stratosphere.⁷

F. N. Kovalev and I. Cheprov rejected any attempt to define the upper limits of air space on the basis of the geophysical meaning of the word "air", since the scientists themselves could not agree.⁸ Instead they suggested the criterion of state security.^{8A} If it is a matter of security, a state would be justified in going beyond its air space. Yet they realize the potential for abuse in this but can only offer as legitimization, the ability of the state asserting the right to effectively control the zone above. This combination of state security and effective control was accepted by G. A. Osnitskaya in 1959,⁹ and V. A. Radionova, and D. Leving G. Kalynuzhnaya in 1960.¹⁰ However, at least two jurists, M. Markov¹¹ and R. Gabrovsky,¹² while accepting the criterion of state security, rejected that of effective control. Gabrovsky felt the test of effective control would give a privileged position to the most developed countries.

The idea of some jurists that the perigees of the U. S. and Soviet sputniks established a new custom was rejected by Osnitskaya.¹³ Non-objection did not amount to consent in her opinion. Kovalev

and Cheprov had already taken this position in 1959. ¹⁴ Osnitskaya championed the "security principle" which was, in effect, open-ended, since there was no set ceiling or limit on air space and in fact the air space concept was implicitly rejected as unrealistic. ¹⁵ Of course, the security principle was double-edged in that others could envoke it against the U.S.S.R. to hamper its space activities.

G. Zadorozhny however felt that the lack of protests over U. S. and Soviet sputnik flights has established a new international legal custom whereby flights of peaceful satellites free from any air resistance, take place outside of air space of underlying states. ⁵⁶ In other words Zadorozhny felt that these flights were in fact outside the air space and that the lack of protests meant general recognition of this. Zadorozhny even called for recognizing a right of innocent passage through air space if flights were for peaceful purpose.

Thus, prior to 1966 the security principle with or without the effective control principle seemed to be vying with Zadorozhny's "ceiling plus custom" approach.

Zadorozhny's views received support from G. P. Zhukov, who devoted a chapter of his book, *Cosmic Law*, a pioneering study, to the height boundary of sovereignty. Zhukov reiterated Zadorozhny's argument for the force of custom sanctioning sputnik flights in earth orbit over 160 kilometers above the territory of underlying states on the basis of lack of protest amounting to acceptance. But, according to Zhukov, this was acceptance only of peaceful cosmic activity and not of the 160 kilometer de facto height of the orbits. And Zhukov was quick to emphasize that the question of the upper limits of air space was still an open question in international law, with no international agreement defining the limits of air space. ¹⁷

Zhukov stated that most jurists agreed that the border of a state's sovereignty would be established above the height limits of flights of ordinary planes (40 kilometers) and below the apogee of orbit of artificial sputniks (150 kilometers). ¹⁸ Zhukov refrains however from endorsing this ceiling. He calls for an international agreement on the limits of air space in the future while cautioning that the time for such an agreement does not seem ripe yet. ¹⁹

Zhukov does not share Zadorozhny's desire to see a right of innocent passage for peaceful cosmic space vehicles through air space recognized. Zhukov is a strong advocate of the full exclusive sovereignty of all states over their own air space and he invokes the analogy from air law in which no right of peaceful passage is recognized, as it is in maritime law. Zhukov sees no reason to make an exception for the sake of space ships, which most certainly would pose a security risk to underlying states. ²⁰

Zhukov links the ultimate solution of the air space boundary to the question of disarmament. ²¹ The implication is that if the West would agree to Soviet disarmament proposals, thus easing if not

eradicating the threat to the underlying state's security, then the height of air space could be minimized. Obviously Zhukov is here introducing a distinctly polemical tone to his hitherto legalistic advocacy.

E. Vasilenskaya, in addressing herself to the question, notes that G. Osnitskaya and the majority of Soviet jurists feel that the most important consideration in drawing the line or ceiling on air space is how best to protect the state's security ceiling concept.

Nor did the 1967 Treaty on Principles Governing Acts of State in the Exploitation and Use of Outer Space. Including the Moon and Other Celestial Bodies, hailed by the Soviets as the first legally uncontested statute on space law in the form of an international agreement, help in this relation. In fact, as I. Cheprov notes, this was one of the major unresolved problems in its wake.²³

G. P. Zhukov reiterated his old arguments in a 1967 article on air space, while seeking to refute the so-called functionalist approach which eschews any mechanical definition of air space in favor of a distinction based upon the apparatus involved in the flight-air or cosmic. Functionalists argue for free sphere for space ships and apparatus by analogy with the freedom which radio communications enjoy. Zhukov brushes this aside in part because technologically it is difficult to distinguish whether a particular flight is cosmic or air-for instance to which category does an ICBM belong?²⁴

That western writers are well ware of this is attested to by Paul Martin's raising of the problem of defining spacecraft and hybrid flight vehicles in legal terms.²⁵ Again Zhukov emphasizes that state security must be the big factor in delimiting air space and outer space unless agreement on disarmament on earth and in outer space is reached.²⁶

Elsewhere Zhukov and Vereshchagin cast a suspicious eye toward western jurists who champion the right of peaceful cosmic flight through air space.²⁷

In the West there is as yet no consensus as to the criteria for demarcating air space and outer space. Andrew Haley and Theodore von Karman proposed a dividing line between air space and outer space. Known as the Von Karman line, it is a line connecting the points at which flight by aerodynamic lift ceases and centrifugal force takes over. It began at approximately 275,000 feet. Sovereignty should extend upwards to the point where aerodynamic lift is available. There are certain problems with this concept due to both atmospheric changes and the mixed nature of certain hybrid air space craft. but it is beyond our purposes to delve into these.^{27A} John Cooper set the limits of air space at 60 miles because that is where atmospheric density became insufficient to support aerodynamic flight. Others have urged 53 miles or 10,000.²⁸ Cooper's views have undergone frequent changes. In 1956 he proposed 300

miles above the surface, which included a "contiguous zone", through which all non-military flights would enjoy a right to transit. In 1957 he revised the air space upward to 600 miles to take into account newer technological advance in rocketry. ²⁹ In 1960 Cooper proposed that outer space should begin at a point above earth where it is possible to put a satellite in orbit at least once round the earth. ³⁰ Jenks feels that the demarcation problem will be dealt with only in so as far it becomes a matter of practical importance in specific contexts to define what is and what is not permissible. ³¹

The problem does have direct bearing on the legality of spy satellites. The principle of freedom of access to outer space would seem to legalize the observation from there of earth in the sense that there would seem to be no infringement or trespass of whether or not the use of spy satellites in outer space is a peaceful use of outer space in accord with the 1967 treaty. Does the underlying state have a legal right to destroy spy satellites constituting a threat to its security although they are beyond its air space? The security formula, inherently vague, espoused by the Soviet jurists would seem to allow this. Myres McDougal seems to accept the concept of a contiguous security zone, which would allow states to act unilaterally to remove danger beyond their territorial limits. McDougal anticipates that both the U. S. and U.S.S.R. will, along with other states, assert a unilateral competence to protect themselves against activities in space where they reasonably regard themselves as unduly threatened. McDougal concludes:

"Our experience upon the oceans and in the air space above the oceans (with contiguous zones based on security needs) would suggest that, when such claims are made with a reasonable regard for the interest of others, the states of the world will be able to clarify a common interest in their being accepted and honored." ³²

According to McDougal, none of the all too numerous proposed boundaries make sense because they fail to relate to the common interests of the effective power holders in the arena. No boundary can realistically protect a state from unique threats and injuries from activities in space. If the states of the earth could agree on an arbitrary, very low boundary, which is highly improbable, it could be useful in fixing the border of proof: for activities above it, the surface state would have to justify the reasonableness of its assertion of unilateral competence; for activities below it, the state of the nationality or the spacecraft would have to establish its innocence. ³³ Thus, it would seem that the security needs of a state may make any attempt to seek a boundary of air space impractical unless said needs are explicitly taken into account.

*Property Rights and Jurisdiction During
And After Spaceflights*

All Soviet jurists agree that space vehicles, systems and apparatus belong to the state which launched them and that they should have distinguishing marks on them to identify the launching state. Crews on board should be subject to the jurisdiction of the state whose marks the ship bears. Should the ship or equipment land outside the territory of the launching state, be it on foreign territory or the high seas, both crew and all property should be returned unless they were engaged in espionage, in which case they are justifiably subject to destruction even in outer space.³⁴ The Soviets have consistently opposed the entrance of private persons or corporations in space. They would like to restrict the right of the exploration and use of outer space to states but have run up against strong opposition on this from the U. S.³⁵ Vasilevskaya recognizes a right of the states rescuing or safeguarding the landed spacecraft to reimbursal for all expenses thereby incurred.³⁶

In respect of any disputes which might arise out of rescue or custody by a non-launching state, the Soviets opposed the U. S. sponsored U. N. proposal to give obligatory jurisdiction over such dispute to the International Court.³⁷

The Soviets claim to have championed the principle of the duty of all states to help in the rescue of astronauts. However certain problems flow out of this obligation. Should the launching state have access to the rescue site automatically? The Soviets opposed this with the U. S. favoring it.³⁸ Moreover, the Soviets want all launchings to be registered either with the U. N. or some specially created agency, together with its markings. Failure to register a launch would vitiate the duty of a rescue to return the ship, just as well as if the mission of the launch was non-peaceful or harmful to wealth or environment. The Soviets have resisted the U. S. backed principle of the unconditional return of all property and crews.³⁹ The Soviet jurist Osnitskaya feels that any intentional landing unauthorized by state in which it lands also vitiates the right to demand a return.⁴⁰

The January, 1967 Treaty on Principles of Activity of States as to the Investigation and Use of Cosmic Space endorses the principle of ownership remaining throughout the flight in the launching state registered as such and also its jurisdiction over the crew while it is in the cosmos or on heavenly bodies. It also codifies the right of ownership in objects left in space or on celestial bodies.⁴¹ G. Vasilevskaya notes that this exclusive jurisdiction over one's own stations in space or on celestial bodies would provide no solution in case of a dispute between two neighboring stations or orbiting vehicles. Here treaties or agreements, bilateral or multilateral, are needed.⁴²

*Liability of State for Damages Growing
Out of Cosmic Activity*

The Soviets have consistently supported the principle of liability damages caused by the fall of a cosmic missile or ship. ⁴³ The U. N. General Assembly resolution of December 13, 1963, of legal principles regulating state activity in outer space pronounced the liability of each launching state for harm caused by its objects in the air or space to another state or its physical or juridical persons. One of the major issues on which the Soviets have taken a consistent stand is that of imposing absolute liability for damages caused by cosmic activity. The Soviet jurist Zhukov opposed the American jurist J. Cobb, who proposed liability for collisions in space based on guilt alone. ⁴⁴ Zhukov does not accept C. W. Jenks' view that in determining liability for space accidents the principle of the relative degree of fault or negligence be taken into account. The U. S. position that premeditation or negligence or carelessness are all grounds for freeing the main defendant from absolute liability, put forward in U. S. drafts on liability for activities in outer space put forward at the U. N. A Hungarian draft stipulated that under no circumstances could the perpetrator of an illegal act which results in damages be relieved of absolute liability. ⁴⁵

Vasilevskaya notes that the majority of jurists support absolute liability for damages resulting from cosmic activities, such activities being considered sources of increased danger. ⁴⁶ P. Jessup and H. Taubenfeld, two American jurists, who support the principle of absolute liability, hold that it would be an unfair burden to impose on injured parties that as a condition precedent to recovery they prove a defect in manufacture or negligence in operation. ⁴⁷

Vasilevskaya criticized the U. S. draft proposal on a number of counts. First of all it would bring the International Courts into the picture and the Soviet Union cannot accept so Western dominated a forum. Second, the U. S. draft makes international organizations liable as well as states, and yet the International Court can only entertain cases involving states. Third, although the U. S. draft establishes absolute liability for harm caused on earth, air and in space, this is limited by cases of premeditated or negligent acts or omission is not described. This lack of clarity is fatal. ⁴⁸ The one exception to absolute liability that Soviet jurists do agree on, according to Vasilevskaya, is acts of nature — e. g., where a meteor causes the accident. ⁴⁹

Another area of disagreement or at least non-consensus is the varied jurisdictional aspect of liability. For instance, is the law of the guilty state to control in the determination of damages or the law of the state of the victim? Is the guilty state liable to suit by its own citizens? The Belgium draft proposal suggested letting the

law of the victimized state control. Zhukov objected to this on the basis that if there were two or more victims from different states, it would create complications. He urges adoption of some uniform principle but fails to spell one out. Zhukov feels that where there is only one victim who is stateless, the claimant state would be the one which the stateless victim lives permanently. ⁵⁰

A big issue in framing an international convention on liability is the provision for categories of beneficiaries. Should only foreigners be protected or should nationals of the state causing damages in space activities be included? Should the place where the damages occur be crucial? If damages occur to foreigners within the territory of the guilty state, should the domestic law of the guilty state alone apply, or should this be allowed only if the victims are nationals of the guilty state? What about the situation in which nationals of the guilty state are injured abroad? Should they be allowed to sue based on the international convention or should foreigners alone be covered in the convention? As to accidents in outer space, which law applies, that of the victim, the defendant or a special law? Zhukov feels that liability as between a state and its citizens is purely a matter for domestic rather than international law and in this we agree with the U. S. draft. Zhukov bases this on the well established principle of international law that a citizen cannot sue his own state. Zhukov also feels that foreigners injured similarly while residing in a defendant state should not be protected by an international convention either. ⁵¹

As to the jurisdiction when accidents take place in outer space, some say it lies with the state in whose registry the ship causing the damages is. Others plead for jurisdiction always to be in the victim's state. Other urge the International Court or special international arbitration. The Soviets seem to favor arbitration, perhaps within limits set by a special international agreement which would also limit total liability? ⁵² Zhukov is a strong advocate of a limit on total liability being stipulated in an international convention. He reflects the Soviet position that such a convention be open to all states, not just U. N. members, as the U. S. proposes. ⁵³

Another issue upon which the Soviets have been adamant is the liability of states for the acts of their nationals — natural or corporate — in space. The Soviets have opposed the opening of space to private enterprise — more on this below — and although they have been unsuccessful in this respect, Article VII on liability of states for damages in space of the 1967 Treaty has been held to mean that states are liable for the acts of their citizens, as are member states of international organizations for their organization's acts. ⁵⁴

Another issue is how to handle liability flowing out of joint activities. Should the victim be able to sue any of the jointly engaged states for the whole amount of damages or must the victim

sue all together? Zhukov believes that so-called solid liability by which anyone defendant can be sued for the total amount, with the right to compensation in turn from the other defendant being preserved for him, is the most practical approach. This relieves the plaintiff state of having to go into the details of the degree of liability as among the members of the joint enterprise.⁵⁵ As to whether one of the state participants in a joint cosmic enterprise injured by a co-participant can sue that co-participant, or all or some of them, Zhukov feels that this is a matter which would be left outside any international convention on liability for damages in outer space. It is a matter to be settled among the joint parties by private agreement.⁵⁶

Another position upon which the Soviets are insistent in the face of a mixed position on the part of the west is the liabilities and rights of international organizations. Is the international organization alone liable for its cosmic activities or are its member states separately, jointly or either way liable? Zhukov reflects the Soviet view in favor of solid liability where by a victim could seek simultaneously total compensation from the organization or any of its member-states, individually or together, or from both simultaneously.⁵⁷ The theoretical problem underlying the Soviet approach is that an international organization, according to the Soviets, cannot be, in the same measure as a state, a subject of international law. It is not a sovereign. Since it has no territory and no citizens, there is no basis for it to sue for compensatory damages on behalf of its members. Thus the U. S. S. R. opposed a U. S. draft which would have endowed international organizations with the power to present suits against state-defendants.⁵⁸

*The Emergence of the Fundamentals of a Cosmic Legal
Order Together with Certain Problems
To Their Interpretation*

The January 27, 1967 Treaty on the Principles of Activity of States as to the Investigation and Use of Cosmic Space, including the Moon and Other Heavenly Bodies, hereafter referred to as the 1967 Treaty, codified in very general terms much of what had been agreed upon in the form of U. N. resolutions or unilateral, bilateral and multilateral agreements or declarations of states in the previous decade. The 1967 Treaty embodies 10 basic principles which I will discuss below with special emphasis on the Soviet interpretation of each and how such interpretation either diverges from or conflicts with non-Soviet interpretation.

The first principle proclaimed is that the investigation and use of cosmic space, including the moon and other celestial bodies, is for the good and in the interest of all countries. According to the

Soviet jurist V. S. Vereshchatin, this not only excludes any cosmic activity which can cause harm to other countries or people such as pollution, but it also excludes the use of cosmic communications to interfere in the internal affairs of other states, or for broadcasting war propaganda or things which stir up national hatreds.⁵⁹ The derivation of this provision is resolution 110 of the U. N. General Assembly of November 3, 1947, which condemned war propaganda having as its aim the threatening of peace or instigating acts of aggression.⁶⁰ The Soviet jurist Yu Rybakov believes that the treaty outlaws T. V. broadcasting being beamed at the territory of any state from space without its permission.⁵¹ Zhukov had proposed an international agreement on the use of cosmic radio communications which might create a special organ to enforce the ban on war propaganda etc. and with specific express sanctions included in the convention for violations.⁶² Vereshchatin blithely states that on the basis of article one the findings and achievements of individual states or groups of states are the property of all mankind.^{62A} Does this view mean that all data must automatically be made available or that devices and inventions which are the fruits of such investigations can be used regardless of patent laws and treaties etc.? E. H. Vasilevskaya seems to say that states must share their results and let others make use of this data, presumably without charge.^{62B}

A major problem left unanswered by the Soviet literature is just what they consider propaganda to be. Obviously there is much room for disagreement in such a highly politically and ideologically colored term. To agree on the principle of banning it is easy enough but to define the concept to the mutual satisfaction of ideologically diverse states is a difficult job. Hence the problem was resolved at this stage by agreement on a principle without filling in its content or substance.

Article one of the treaty goes on to declare outer space free for exploration and use by all states without discrimination of any kind, and in accord once with international law, and with free access to all areas of celestial bodies. Freedom of scientific investigation is declared and states shall facilitate and encourage international cooperation in such investigation. A big question in respect of "free access to all areas" would seem to be whether this means that any state may inspect a facility constructed or resting on a celestial body or orbiting in space of another state without its permission. Since article 8 expressly states that ownership rights in launched objects is not affected by their presence in outer space, is this unauthorized entry by another state a cosmic trespass or not? Article 12 of the 1967 Treaty expressly grants access to all states to inspect stations on celestial bodies, on a basis of reciprocity, provided reasonable advance notice is given so as to allow prior

consultations and the taking of precautions to prevent interference in ground operations at the facility. As to who decides whether objection to visits are valid or what is reasonable notice, or whether reciprocity requires the visiting state to have similar installations is all left open.

Article 2 declares outer space and its celestial bodies not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means. Using this article the Soviets condemn the sale by private companies of shares in celestial bodies as illegal.⁶³ A U. N. General Assembly resolution of December 20, 1961, had declared celestial bodies to be not subject to acquisition. Zhukov interprets this article to preclude appropriations by private companies of persons as well.⁶⁴ The Soviets claim that the U. S. position on appropriation has changed to suit its opportunities. Before the first sputnik, the U. S. favored appropriation, since it expected to get to the moon first. Zhukov sees this in a new flexible post-1959 U. S. position, which belittled symbolic possession — planting a flag on the moon — as sufficient for national acquisition. In 1959 the state department's legal adviser stated that the U. S. would not claim heavenly bodies nor recognize the claims of other states. Zhukov claims that the Soviet Union has consistently upheld the principle of free access to celestial bodies and their not being subject to acquisition by states.⁶⁵

Soviet jurists oppose transferring jurisdiction over the moon to some international organization, as certain western jurists have urged. They point to the Antarctic Treaty of 1959 as working well without such an arrangement.^{65A}

Zhukov however does not, in ruling out sovereignty over celestial bodies, mean to rule out the right of states to establish equipment and stations etc. on celestial bodies, to exploit resources there, to retain property rights in these installations, and to exercise jurisdiction over personnel there.⁶⁶ Moreover, Zhukov feels that once a state begins exploitation of a specific area, their exclusive right to use of it should be assured.⁶⁷ As to whether this conflicts with part of article one which proclaims "free access to all areas of celestial bodies" and as to whether Zhukov's "exclusive right to use" is not sovereignty by another name are important questions. Freedom of access may only require the right to cross over or inspect space stations on celestial bodies. J. Fawcett believes that a system of tenure over parts of celestial bodies is probably a practical necessity.⁶⁸ Still this form of exclusive jurisdiction he proposes may not be what Zhukov has in mind. Zhukov would have to spell out just what the nature of his exclusive rights are.

Article 3 declares that parties to the treaty shall carry on activities in the exploration and use of outer space and the celestial bodies in accordance with international law, including the U. N.

Chapter, and in the interest of maintaining international peace and security and promoting international cooperation and understanding. A Soviet text interprets this to mean that states in space should adhere to such principles as non-aggression, peaceful solution of all disputes, forbidding of war propaganda and disarmament. ⁶⁹ Yet, although war propaganda is mentioned elsewhere in the treaty as forbidden, it is certainly a controversial interpretation of international law of the U. N. Charter which sees these as requiring disarmament. But more about this below.

Article 4 enjoins all parties to the treaty from orbiting around the earth objects carrying nuclear weapons of any other kind or weapons of mass destruction, installing such on celestial bodies, or stationing such in outer space. Furthermore it declares that the moon and other celestial bodies are to be used only for peaceful purposes and forbids the establishment of military bases, installations and fortifications of the testing of any type of weapons and the conduct of military maneuvers on celestial bodies. But it adds that the use of military personnel for scientific research or for any other peaceful purposes shall not be prohibited nor shall the use of any equipment or facility necessary for peaceful exploration of the moon and celestial bodies. No article in the treaty is more important or fraught with exceedingly controversial interpretations. Both western and Soviet jurists recognize this article as mandating full demilitarization of the moon and other celestial bodies and partial demilitarization of cosmic space. The major area of disagreement concerns just what is a use in a peaceful purpose.

As Fawcett states, "peaceful" may in describing space operations mean simply "non-aggressive" and could then include any manner of defence or much more restrictively "non-military". 'Purposes' may relate to the immediate use only or be extended to cover any capability of a particular device or operation. Further, since almost any technical device is capable, directly or by adoption, of being put to some military use, it is difficult and often impossible to characterize its invention, construction, or use as being exclusively non-military or military". ⁷⁰ Robert Wotetzal, a U. S. expert, also is concerned with the practical problem of distinguishing military from non-military uses. ⁷¹ What is an information gathering sputnik? Is it a "spy satellite?" Is it engaged in espionage? Of course most of the ingredients of this article were to be found in the Moscow Treaty of August 5, 1963, which banned nuclear testing in outer space as well as in the atmosphere and under water, and a U. N. General Assembly resolution of October 17, 1963, called on all governments to refrain from putting into orbit around the earth any objects with nuclear weapons or other weapons of mass destruction or of placing such on celestial bodies or allowing such in space in any form. During 1966 the U. S. and U. S. S. R.

circulated draft treaties on outer space. The Soviet draft covered activities on all celestial bodies where as the U. S. draft included only the moon. The Soviets condemned the U. S. draft for this as well as the fact that it did not forbid the orbiting of objects with nuclear weapons or weapons of mass destruction or prohibit the emplacement of these in space in any form. Moreover, the Soviets condemned the U. S. draft for not precluding the use of satellites to broadcast war propaganda. The fact that the U. S. draft was only open to signature by U. N. members was held by the Soviets as rank discrimination and against the spirit of universalism. ⁷² The Soviets apparently recognized that the 1967 Treaty failed to resolve the question of whether the flight of an ICBM is through space. ⁷³ For if it is, it would seem to contravene article 4.

The Soviets interpret "other kinds of weapons of mass destruction" which among with nuclear weapons which cannot be orbited, installed or stationed on celestial bodies or in outer space, to include bacteriological and chemical. ⁷⁴

Zhukov calls for some type or international agreement banning spying in the cosmos. Zhukov claims the U.S.S.R. took this position in 1962. While admitting that spying is not directly forbidden by the U. N. Charter, Zhukov claims it is by the norms of international law. ⁷⁵ Zhukov considers the launching of a spy satellite inconsistent with peaceful co-existence and analogous to air espionage. Article 36 of the Chicago convention of 1944, allows the underlying state to forbid the use or aerial photography in air planes over its territory. And, says Zhukov, to the state whose security is concerned the height from which the spying is done is irrelevant. ⁷⁶

Here then is the problem by the upward reaches of air space and thus national sovereignty. Thus the problem of what peaceful uses of outer space are. If we assume that a satellite gathering intelligence data is in outer space and thus not infringing in the underlying states air space, is this activity an unpeaceful use of outer space and thus proscribed by the 1967 treaty? The Soviet and U. S. views on the meaning or peaceful purposes differ essentially. For the U. S. peaceful means non-aggressive whereas the Soviets equate it with non-military. ⁷⁷ The U. S. holds satellite reconnaissance is non-aggressive. If aggression is defined as an illegal resort to armed force in international relations, then by definition use of a space reconnaissance satellite is non-aggressive, assuming the satellite is unarmed. But, if peaceful purposes are only those connected with a state of peace as opposed to a state of war, then the Soviet charge that satellite reconnaissance is a military activity and therefore unpeaceful gains legitimacy. Another counter-argument to Zhukov's is that, according to the U. N. Charter, every state has the right to self-defense and included in this right is that of deterring war serves a peaceful purpose. ⁷⁸ Zhukov dismisses

this by arguing that in the exercise of genuine self-defense, outer space can be used. But this means in response to an attack rather than using space for so called acts of preventive self-defense. ⁷⁹

J. Fawcett notes that "the absence from the 1967 Treaty or any prohibition of reconnaissance satellites, or even of direct reference to them, is striking." One of two inferences may be drawn: that the principal space-users have come to acquiesce in the use of reconnaissance satellites, or that the issue remains open and that reliance might be put on the provision or article 3 of the treaty, that space activities shall be carried on "in accordance with international law" to argue that reconnaissance caused by satellites is unlawful." ⁸⁰

Fawcett notes further that the U.S.S.R., in its draft declaration of 1966 on the uses of outer space, did not go so far as to declare the use of reconnaissance satellites contrary to international law — as Zhukov did — but rather that such use was incompatible with the objectives of mankind in its conquest of outer space and thus, if captured, should not be returned to the owner state. Fawcett concludes from this that :

"there is reason then to think that reconnaissance satellites are now established as legitimate, whatever earlier arguments may have been raised against them; and they are even perhaps in the interest of mankind in that they represent an efficient form of inspection of military activities, and the avoidance of inspection has always been a major obstacle to disarmament." ⁸¹

It would seem that Zhukov's position may have been discarded temporarily by the Soviets although not repudiated.

Article 5 stipulates that astronauts are to be regarded as envoys of mankind in outer space and all states who sign the treaty should render them all possible assistance in case of distress and return them and their vehicle promptly to their state of registry if they accidentally or in distress land on a state's territory. States are to cooperate with each other in outer space and to report phenomenon they discover in space harmful to astronauts to the U. N. Secretary-General immediately. The one conflict between the U. S. and U.S.S.R. as to this article concerned the U. S. position that the right to return of the crew and ship would be unconditional, which the U.S.S.R. found unacceptable. ⁸² The issue is seemingly unresolved since article 5, conditions the speedy return in the event of accident, distress, or emergency landing, all which do not preclude the aborting of a mission which the U.S.S.R. refuses to consider peaceful and thus refuses to return the crew or ship. ⁸³ Has it violated

article 5? Obviously there may be military or intelligence advantages in thoroughly studying satellites or specialized equipment on them. It is not only then a crucial question as to the right to a return of crews and ships, but the timely return of such. Article 5 talks of a "timely return". This is less than an "immediate" return. Here then is a possible source of great controversy.

Article 6 places responsibility squarely on the state for national activities in space, whether carried on by governmental agency or non-governmental. International organizations carry out space activities as well as their member-state are equally liable. As mentioned above in the section on "Liability of States for Damages Growing Out of Cosmic Activity", the U.S.S.R. consistently opposed the allowance of non-governmental activity in outer space, an issue on which the U.S. was diametrically opposed. This article represents for the U.S.S.R. a compromise. While private activity is legalized, the principle of state responsibility for it is also. In discussing the international legal regime of sputnik communications, the Soviet jurist P. I. Lukin voices the Soviet position that only states should be active in space. In formulating the "Declaration of Legal Principles Regulating the Activity of States in Investigation and Use of Cosmic Space", adopted by the U. N. General Assembly December 13, 1963, the principle of state responsibility for national activity in space including that of private parties, was set out. This represented a compromise since the U. S. and other western powers rejected the Soviet approach on the basis that it represented an interference in the internal affairs of independent governments.⁸⁴ Lukin musters five reasons for opposing private enterprise in space. none of which is purely ideological in form: First, only a state is in a position to develop and apply the latest technical-security achievement. Capitalist monopolies would only do this in response to competition. Also, the presence of too many competing satellites in space of different companies creates safety hazards and functional interference. Second, state to state collaboration would be the least complicated legally. Third, only a state bears full political and international responsibility for the correct functioning of a satellite communications system so as to insure that it is not used to harm other state's interests. Fourth, fiscal responsibility is ensured by state ownership. Fifth, outer space under a regime of mixed state-private enterprise would be the source of the collision of various national laws, both private and public.⁸⁵

Lukin has assailed the U.S. for sponsoring the Comsat satellite communications enterprise instead of taking a really universal approach to the problem. Lukin denounced Comsat as a tool of U.S. exploitation of its West European partners, who, he holds, on analysis of the corporate statutes, have no effective control over its policies or operations. The Comsat scheme exposes fuller, says

Lukin, the U.S. aim of exploiting their technological resources to the hilt for selfish private gain and not for the good of mankind. The only reason the U.S. even looked for junior partners was to endow the corporation-Comsat-with an international status. For Lukin Comsat illustrates the evils of allowing private enterprise into the cosmos. ⁸⁶

Article 7 declaring state liability for damages caused by its participation directly or indirectly in launchings into space to other states who are parties or to natural or legal persons, is in line with the Soviet position enunciated prior to 1966, which has been discussed below, as is article 8 which proclaims that ownership in launched objects as well as control and jurisdiction over them and their personnel, is returned while in space or on celestial bodies. Article 8 reiterates in part article 5 structure to return such property and personnel when found beyond the limits of the state in whose name they are registered. Article 9 declares that exploration and use of outer space and celestial bodies are predicated on the principles of cooperation and material assistance. According to Robert Crane, "international cooperation" is used as a blank check concept by the Soviets in the interests of serving Soviet propaganda purposes. International cooperation is defined by them to require U. S. acceptance of whatever Soviet-posed solution is current. Any U. S. opposition to this unilaterally declared solution is held to be contrary to the requirements of "peaceful cooperation". ⁸⁷ Article 9 declares that all states party to the treaty must conduct their explorations so as to avoid contamination and adverse changes in the environment of the earth resulting from the introduction of extra-terrestrial matter. P. I. Lukin's fear of imperialist states using future ability to control the weather via space satellites etc. to harm other states, leads him to the conclusion that the concept of state security will have to be recognized to encompass the meteorological conditions of a given state. Thus he postulates a rule whereby the right of one state to change its own climate cannot be at the expense of another state's climate. He feels that new international weather organs will be needed to develop and police such rules. ⁸⁸ Article 9 provides for consultations prior to the conduct of potentially harmful celestial activities at the initiative of the acting state or a state party to the treaty which has reason to believe the activity or experiment could harmfully interfere with activities on outer space. The problem is that this does not refer to harmful consequences for the earth or its atmosphere as opposed to outer space and its celestial bodies.

Article 10, in binding parties to consider on a basis of equality any requests by treaty signatories to be allowed to observe launchings of space objects, leaves all the conditions surrounding such observations to the parties concerned. In leaving the "nature of such an

opportunity" to bilateral determination there is a real question as to whether the "obligation" is in fact an obligation or whether it is rather only highly recommended. This article is perhaps an example of the attempt to put teeth into the general obligation enunciated in many parts of the treaty to base space activities on the "principle of cooperation". Unfortunately this formulation in article 10 falls short of spelling out in unequivocal language whether an obligation is imposed. Even if interpreted to impose an obligation the failure to spell out standards for reaching "agreements" or of any method of policing their negotiation and enforcement would seem fatal. Moreover the silence of both Soviet and U. S. officials and jurists in raising these point would seem to indicate a mutual desire to shelve these questions at least temporarily, with each side left to raise interpretational objections of one sort or the other at such time as this suits its position. All this illustrates the illusion of at least inherent imperfection of agreements on general principles, at least in part. But this is not to say that agreements on principles are valueless or impractical. They not only have obvious symbolic or moral value, but they may act as catalysts to further detailed agreements if they encourage contacts by creating an atmosphere of cordiality, a sense of progress and confidence in the negotiating process, and perhaps bringing attention to bear on the unresolved questions implicit in the general principles.

NOTAS

- 1 C. W. Jenks, *Space Law*, (New York: Praeger, 1965), p. 146.
- 2 According to Robert Crane, Soviet space legal ideology developed first around the question of just where outer space began. See Robert Crane, "The Beginnings of Marxist Space Jurisprudence", *American Journal of International Law*, Vol. 56 (1962), p. 687.
- 3 V. I. Lisovsky, *Mezhdunarodnoye Pravo*, (Moscow, 1955), p. 160.
- 4) Kislov and S. Krylov, "Sovereignty of the State in Air Space", *International Affairs*, (M., 1956). N.º 3, p. 43.
- 5) F. I. Kozhevnikov, *Mezh. Pravo*, (M., 1957), p. 13.
- 6) Robert Crane, "Soviet Attitude Toward International Space Law", *American Journal of International Law*, Vol. 56 (1962), p. 689.
- 7) Zadorozhny, "The Artificial Satellite and International Law", *Sov. Rossiya*, October 17, 1957, p. 3.
- 8) *S.Y.I.L.*, (M. 1959), p. 134.
- 8) For a fuller discussion of the broader significance of their views in the context of the earlier Soviet writings on this issue see, Robert Crane, "The Beginnings of Marxist Space Jurisprudence", *American Journal of International Law*. Vol. 57 (1963), p. 620.
- 9) *S. Y. I. L.*, (M., 1960), p. 57.
- 10) Levin and Kalyuzhnaya, *Mezh. Pravo*. (M., 1960), p. 185.
- 11) M. Markov, *S. G. I. P.*, N.º 8 (1961), p. 100.
- 12) T. Gabrovsky, *S. G. I. P.*, N.º (1962), p. 82.

- 13) S. Y. I. L., (1960), p. 56.
- 14) S. Y. I. L., (1959), p. 133.
- 15) S. Y. I. L., (1959), pp. 57-58.
- 16) G. Korovin, ed., *Kosmos i Mezh. Pravo*, (M., 1962), p. 48.
- 17) G. P. Zhukov, *Cosmic Law*, Izdat. Mezh. Otnoshiye, (M., 1966), pp. 272-276.
- 18) *Ibid.*, p. 282.
- 19) *Ibid.*, p. 288. The noted space law authority, M. Seara Vazquez agrees with the idea that the only way to establish a limit to air space would be by international agreement. See, M. S. Vazquez, *Cosmic International Law*, (Detroit: Wayne State University Press, 1965), p. 96.
- 20) *Ibid.*, p. 292-293.
- 21) *Ibid.*, p. 276.
- 22) G. Vasilevskaya, "International Legal Questions of Securing the Security of Cosmic Space Flights", in *Kosmos i Problema Vseobshchego Mira* (Moscow: Izdat. Nauka, 1966), p. 70.
- 23) I. Cheprov, "Victory for Soviet Diplomacy — The Treaty on Outer Space", *S. G. I. P.*, N.º 2 (1967), pp. 57-59.
- 25) Paul Martin, *New Frontiers in the Law of the Air, in the Freedom of the Air*, edited by A. McWhinney and M. Bradley. (Leyden and New York: Sijthoff and Oceana Pub., 1968) p. 242.
- 26) *Ibid.*, p. 62.
- 27) Lee, *Course in International Law*, Volume III, (Moscow: Izdat. Nauka, 1967), pp. 376-377.
- 27A) For a perusal of the von Karman-Haley formula and others akin to it see Jerome Morenoff. "World Peace Through Space Law", *The Michie Charlottesville, Va.*, 1967, pp. 159-165.
- 28) M. Seara Vasquez, *Cosmic International Law*, (Detroit: Wayne State University Press, 1965), p. 51-52.
- 29) C. W. Jenks, *Space Law*, (New York: Prager, 1965), pp. 108-109.
- 30) *Ibid.*, p. 111.
- 31) *Ibid.*, p. 189.
- 32) Myres McDougal, "The Prospects for a Regime in Outer Space", in *Law and Politics In Space*, edited by M. Cohen (Montreal: McGill University Press, 1964), p. 117.
- 33) *Ibid.*, p. 118.
- 34) Kovalev and Cheprov, *S. G. I. P.*, N.º 2 (1960), p. 132.
- 35) E. Vasilevskaya, "International Legal Questions of Securing the Security of Cosmic Space Flights", in the *Cosmos and the Problem of General Peace* (Moscow: Izdat. Nauka, 1966), p. 76.
- 36) *Ibid.*, p. 93.
- 37) *Ibid.*, p. 96.
- 38) G. Zhukov, *Cosmic Law* (Moscow: Izdat. Mezh. Otnoshiye, 1966), p. 99.
- 39) *Ibid.*, pp. 106-108; see also *Course of International Law*, Vol. III, p. 360.
- 40) *Ibid.*, p. 112.
- 41) *Course of International Law*, Volume III, (Moscow: Izdat. Nauka, 1967), p. 351.
- 42) G. Vasilevskaya, "The Treaty of 1967 and Its Significance for the Determination of the Moon and Other Celestial Bodies Legal States", *S. G. I. P.*, 1968, N.º 8, p. 80.
- 43) Ivo Lapenna, "Some Soviet Views on Space Law", in *Current Problems in Space Law*, 1966), p. 92.
- 44) Zhukov, *Cosmic Law, op. cit.*, p. 127.

- 45) *Ibid.*, pp. 128-129.
- 46) Vasilevskaya, "Responsibility for Damages Caused as a Result of Cosmic Activity" in *Kosmos i Problema Obshchego Mira* (Moscow: Izdat. Nauka, 1966), p. 106.
- 47) C. W. Jenks, *Space Law* (New York: Prager, 1965), p. 120.
- 48) Vasilevskaya, *op. cit.*, p. 111.
- 49) *Ibid.*, p. 116.
- 50) Zhukov, *Cosmic Law*, pp. 129-130.
- 51) *Ibid.*, pp. 131-132.
- 52) Vasilevskaya, *op. cit.*, pp. 127-128.
- 53) Zhukov, *Cosmic Law*, *op. cit.* pp. 154-155.
- 54) V. Vereshcheten, "Fundamentals of Cosmic Legal Order", *S. Y. I. L.* (Moscow: Izdat. Nauka, 1966-67), p. 122; G. Zhukov, *Cosmic Law*, *op. cit.*, p. 140.
- 55) Zhukov, *Cosmic Law*, *op. cit.*, pp. 141-142.
- 56) *Ibid.*, p. 145.
- 57) Zhukov, *Cosmic Law*, *op. cit.*, p. 146.
- 58) *Ibid.*, p. 148.
- 59) V. S. Vereshcheten, "The Fundamentals of Cosmic Legal Order", *S. Y. I. L.* (Moscow: Izdat. Nauka, 1968), 1966-67, p. 117.
- 60) Kurs Mezhdunarodnogo Pravo, Kozhevnikov, red., Izdanie II, *Izdat. Mez. Otnosheniya* (Moscow: 1966), p. 260.
- 61) Yu Rybakov, "Mezh. Pravovoye Sotrudnichestvo v Kosmose", *S. G. I. P.*, N.º 2, 1970, p. 42.
- 62) Zhukov, *Kosmicheskoe Pravo*, *op. cit.*, pp. 216-217.
- 62A) V. A. Vereshcheten, *op. cit.*, p. 117.
- 63) A. H. Vasilevskaya, "The Treaty of 1967 and Its Significance for the Determination of the Moon and Other Celestial Bodies Legal States", *S. G. I. P.*, 1968, N.º 8, p. 78.
- 64) Zhukov, *Kosmicheskoe Pravo*, *op. cit.*, p. 239.
- 65) Zhukov, *Ibid.*, pp. 249-254.
- 65A) Kurs Mezhdunarodnogo Prava, Tom. III. Izdat. Nauka, M. 1957, p. 375.
- 66) Zhukov, *op. cit.*, p. 259-260.
- 67) *Ibid.*, p. 265.
- 68) J. E. Fawcett, *International Law and the Uses of Outer Space*. (England: Manchester University Press, and New York: Oceana Pub., 1968), p. 27.
- 69) Kurs Mezhdunarodnogo Pravo, Tomo III, *op. cit.*, p. 350.
- 70) J. Fawcett, *International Law and the Uses of Outer Space* (New York: Oceana Pub., 1968), pp. 29-30.
- 71) Robert Woetzel, "Legal Aspects of Military Uses of Space in Soviet and American Eyes", in *Space and Society*, Howard J. Taubenfeld, ed. (New York: Oceana Pub., 1964), p. 129.
- 72) I. Cheprov, "Victory for Soviet Diplomacy — The Treaty of Outer Space", *S. G. I. P.*, N.º 4, 1967, pp. 50-52.
- 73) *Ibid.*, p. 55.
- 74) Kurs Mezhdunarodnogo Pravo, Tom. III, *op. cit.*, p. 356.
- 75) Zhukov, *Kosmicheskoe Pravo*, *op. cit.*, p. 40.
- 76) *Ibid.*, pp. 42-43.
- 77) *Ibid.*, pp. 51-52.
- 78) J. Morenoff, *World Peace Through Space Law* (Charlottesville, Va.: The Michie Co., 1967). p. 190.
- 79) Zhukov, *Kosmicheskoe Pravo*, *op. cit.*, pp. 53-54. ,
- 80) J. Fawcett, *op. cit.*, pp. 32-33.
- 81) J. Fawcett, *op. cit.*, p. 33.

- 82) Kurs Mezhdunarodnogo Pravo, Tom III, *op. cit.*, p. 360.
- 83) For a more detailed sketch of the Soviet position see the above, section "Poverty Rights and Jurisdiction During and After Space-flights".
- 84) P. I. Lukin, "Mezhdunarodnopravovoi Rezhim Sputnikov Sviazi", in *Kosmos i Problema Vseobshchego Mira* (Moscow: Izdat. Nauka, 1966), pp. 175-176.
- 85) P. I. Lukin, *op. cit.*, pp. 177-180.
- 86) P. I. Lukin, "Sputniki Suiazi i Mezhdunarodniye Otnosheniia", in *Kosmos Problema Vseobshchego Mira, op. cit.*, pp. 171-172.
- 87) Robert Crane, "Basic Principles In Soviet Space Law: Peaceful Coexistence, Peaceful Cooperation and Disarmament", in the *Soviet Impact on International Law*, Hans Baade, ed. (New York: Oceana Pub., 1965), p. 104.
- 88) P. I. Lukin, "Meteorologicheskie Sputniki i Mezhdunarodno-Pravovie", in *Kosmos i Problema Vseobshchego Mira*, (Moscow: Izdat. Nauka, 1966), pp. 193-194.