

Missiles and Spaceflight . . .

5. Permission of subjacent states for re-entry and landing of space vehicles in the airspace.

The legal committee also expressed the view that celestial bodies ought not to be subject to the sovereign claims of any nation, but used solely for the benefit of mankind under an international administration. Unfortunately, the U.S.S.R., Czechoslovakia, Poland, the United Arab Republic and India declined to participate in the Committee's work.

Space Exploration—The Problems of Today, Tomorrow and in the Future, by A. G. Haley, President, I.A.F.

The jurisdictional boundaries between air law and space law should correspond to the transition between aerodynamic flight and ballistic orbiting—the so-called Karman line. The I.A.F. has been able to co-operate actively with the International Telecommunication Union, in particular its Radio Consultative Committee on the important problem of allocation of adequate radio frequencies for space vehicles.

The Law of Space and International Conventions (in French), by R. Homburg, President of the Legal Committee of the French Astronautical Society.

Although there are no clear limits between air law and space law it is clear that space exploration will first require rules for extra-terrestrial navigation and there is no reason why relevant rules from existing conventions should not be applicable to space vehicles. For example, the Chicago Convention, so far as it relates to pilotless flight, health, registration and nationality; and the Conventions of Rome and of Warsaw relating to the liabilities of air carriers.

Air law would thus become one chapter in universal space law. *Some Rules Regulating Earth-to-Earth, Space-to-Earth, and Earth-to-Space Missiles and Interplanetary Vehicles*, by R. A. Javitch, Honorary Treasurer of the Astronautical Society of Canada.

A first attempt is made to formulate some basic terminology which may be appropriate for such rules.

Summary of Legal Problems of Outer Space (U.S.A. and Soviet Viewpoints), by Dr. S. Kucherov, Library of Congress.

Soviet views on outer space have evolved from the narrow idea of an infinite extent of sovereignty to the idea that although outer space is beyond any national sovereignty, nevertheless many of the accepted rules of international law will still apply. For example, force should be excluded as a means of solving international disputes. On the other hand, the United States has not yet conceded that the United States may have no sovereign rights in outer space.

The existing differences in viewpoint between the two nations are essentially political and closely related to the problems of disarmament.

Some Discussed Questions Relating to Space Law, by Prof. Dr. A. Meyer, Air Law Institute, University of Cologne.

The legal status of unmanned space vehicles which land, intentionally or otherwise, in a foreign State is no different from that of any other object identifiable as belonging to a foreign State. Analogies of bullets or smuggled goods are not appropriate. The legal status of outer space will be an important problem until such time as its nature becomes clear from the form of international agreements governing its use.

Proposals for the Future Work of the Permanent Legal Committee of the I.A.F., by Dr. E. Pépin, Institute of Air and Space Law, McGill University.

Small working groups on selected topics are essential if the large,

unwieldy committee is to achieve any useful results. This most practical viewpoint was translated into action by the afternoon session (see above).

World Space Law: Leading Principles for its Codification, by Prof. F. W. von Rauchhaupt, University of Heidelberg.

"World Space" begins around 300 km at the Karman line (see above in Haley's paper) and includes the planetary system which ought to be free and accessible to all nations. Space explorers ought not to harm any living thing and rules evolved in the 16th century by Spanish theologians may be useful. Some kind of "World Space Administrative Union" will ultimately be necessary.

How Shall Space Laws be Introduced? (in French), by Dr. J. Rivoire, France.

Notwithstanding the report of the U.N. *ad-hoc* committee, it will be necessary to create a Space Agency within the framework of U.N. In order to make a start on regulating space activities, any rules proposed must be at once simple and flexible. Law cannot be founded on empirical rules of a swiftly changing technology.

The Space Agency would be responsible for all space vehicles which either (a) rose more than 1,500 metres above sea level, or (b) orbit the Earth as satellites at any altitude. Possibly the only effective sanctions would be the withholding of scientific information.

Functional Regulation of Outer Space (in French), by M. S. Vazquez, College d'Italie, Cité Universitaire, Paris.

United Nations will be the proper agency to reach international agreement in three areas: (i) the vertical limit of air space, (ii) a contiguous zone reaching from this level up to 36,000 km (said to be the height at which a satellite can orbit at the same speed as the earth rotates) and (iii) outer space beyond this level in which all human activities would be regulated by U.N.

Space and Cognopolitics—a Third Force in World Affairs, by P. B. Yeager, Staff Consultant, Committee on Astronautics and Space Exploration, U.S. House of Representatives.

"Cognopolitics" is defined as politics based on knowledge (of science). As a word it may cause classicists to shudder, but it is used as a shorthand to describe the awareness of scientific achievement which characterizes top-level U.S. and U.S.S.R. diplomacy. The two traditional sources of power, physical force and economic force, may ultimately give way to a third force—international power based on scientific mastery.

The Report of the United Nations Legal Committee on the Peaceful Uses of Outer Space: A Provisional Appraisal, by G. J. Feldman, Director and Chief Counsel to the U.S. Committee on Astronautics and Space Exploration.

It is distressing that so little should have come out of such a great deal of deliberation. "Peaceful" should mean "non-aggressive" and not "non-military," otherwise there will be little left of a nation's inherent right to self-defence, specifically guaranteed by the United Nations' charter.

Preliminary Appraisal. Until the U.S.A. and the U.S.S.R. can agree on a set of rules to guide explorations beyond the earth, space law does not exist and is only one stage removed from space fiction. At this stage every man can be his own space lawyer.

Until the full number and text of the papers at the Second Space Law Colloquium are made known it will not be possible to assess results accurately. The I.A.F. undoubtedly acts as a focus to concentrate the thoughts of a great many lawyers on the legal problems of space. But the Federation has not yet drawn on all available sources. For example, out of 28 papers scheduled for delivery, only one was attributed to an English lawyer.

Until the newly organized I.A.F. institute for space law has a chance to work it will be impossible to gauge its possible value, particularly in reply to the recent U.S. Congressional criticism that the I.A.F. is "relatively loosely organized."

One thing is very clear: if the I.A.F. wish to organize another such session then they should either change the title or the organization and procedure of the meeting. A "colloquium" implies discussion, and there is still an aching void to be filled by useful non-political discussions between leading lawyers of the world on the way to the stars. Perhaps the Federation might consider a joint session with the International Law Association.

So far, the lawyers of the world have little or nothing to offer the scientists or the peoples of the world in their desire to explore space. If international politics will permit, it is more than likely that scientists will solve these problems for themselves along the lines of the International Geophysical Year organization.

So far as one can detect a trend from the papers released to date, there appears to be a growing realization that the vertical limit of sovereignty is not the most important problem. The way ahead lies in the evolution of simple rules for the conduct of space exploration which will not hinder scientific progress but will be consistent with a humanitarian Rule of Law.

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Because of the exceptional importance of the International Astronautical Federation congress and space law colloquium, coupled with the S.B.A.C. Show at Farnborough, the regular items of news on Missiles and Spaceflight have been held over for one week.

Developed for NASA by Chance Vought Aircraft, a Scout research rocket is depicted here in the firing position 20 deg from the vertical on its 109ft launcher. A structural-test specimen, the vehicle shown has no fairing between the first and second stages and the tip has balsa baffles to prevent wind-induced vibration

