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## Draft Code of Rules on the Exploration and Uses of Outer Space

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# INTERNATIONAL REVIEW

## DRAFT CODE OF RULES ON THE EXPLORATION AND USES OF OUTER SPACE†

### Introduction

The David Davies Institute of International Studies was founded in 1954 to commemorate and continue the work of the first Lord Davies of Llandinam in the cause of international peace. Its aim is to promote the objective study of current problems in international relations, particularly those having a direct bearing on the maintenance of international peace and security, in order to stimulate the replacement of the role of force in the relations between sovereign States by the rule of law.

In pursuance of these aims the Institute organised a series of Conferences on different aspects of international law which were held in London in 1956, 1958, 1960 and 1962, and following a proposal made at the second of these Conferences, it set up a Study Group on the Law of Outer Space. The members of the Group are Professor R. Y. Jennings, Whewell Professor of International Law at Cambridge,

#### *Chairman*

Mr. Michael Aaronson, of the Inner Temple, Barrister-at-Law.

Major K. M. Beaumont, C.B.E., D.S.O., M.A., U.K. Representative on the Legal Committee of the International Civil Aviation Organization.

Air Chief Marshal the Hon. Sir Ralph Cochrane, G.B.E., K.C.B., A.F.C.

Admiral Sir Michael Denny, G.C.B., C.B.E., D.S.O., formerly U.K. Representative on the Standing Group of N.A.T.O. Military Committee.

Mr. John Foster, Q.C., M.P., of the Inner Temple, Barrister-at-Law, Recorder of Oxford.

Mr. Cyril Horsford, of the Inner Temple, Barrister-at-Law, member of the International Institute of Space Law.

Dr. C. W. Jenks, B.A., M.A., LL.D., Assistant Director-General of the International Labour Office.

Professor D. H. N. Johnson, M.A., LL.B., Chair of International Law and Air Law, London School of Economics and Political Science.

Mr. R. A. MacCrimmon, Q.C., of Gray's Inn, Barrister-at-Law.

Professor Sir Harrie Massey, M.Sc., D.Sc., Ph.D., F.R.S., Quain Professor of Physics, London University.

The Rt. Hon. Lord Nathan, P.C., T.D., F.B.A., F.S.A., F.R.G.S., formerly Minister of Civil Aviation.

Mr. P. F. Neill, of Gray's Inn, Barrister-at-Law.

The Hon. Mr. Justice Wilberforce.

*Rapporteur* Mr. J. E. S. Fawcett, M.A., Fellow of All Souls College, Oxford, and Associate Member of the Institute of International Law.

The Institute is greatly indebted to Mr. Michael Wix and the Michael and Ann Wix Charitable Trust for their generous support which has greatly facilitated the work undertaken.

The present conclusions of the Study Group are set out below as a Draft Code of Rules on The Exploration and Uses of Outer Space.

### Background of the Problems of Space Law

In 1955 the United States and the Soviet Union announced their intention to put Earth satellites into orbit during the International Geophysical Year. Both

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† Prepared by The David Davies Memorial Institute of International Studies.

these States indicated that the satellites would be equipped with recording instruments to enable conditions in Outer Space to be studied.

Meanwhile, a non-governmental organisation known as the Special Committee of the International Geophysical Year had been created under the aegis of the International Council of Scientific Unions. The Committee established rules which were designed to govern the launching of satellites during the International Geophysical Year. The first Earth satellite was launched by the Soviet Union in 1957.

As the International Geophysical Year drew to a close its Special Committee was reconstituted as the Committee on Space Research (COSPAR) of the International Council of Scientific Unions which remained a non-governmental organisation. At the same time problems of Outer Space were taken up by the General Assembly of the United Nations and, at its 12th Session, in November 1957, it resolved to study an inspection system to ensure its peaceful exploitation.

In 1958, at its 13th Session, the General Assembly adopted a Resolution on the Peaceful Uses of Outer Space. The preamble recognised the common interest of mankind in Outer Space and referred to the provisions of Article 2, para. 1 of the Charter of the United Nations which states that "The organisation is based on the principle of the sovereign equality of all its Members." An ad hoc Committee on the Peaceful Uses of Outer Space was formed.

The Committee on the Peaceful Uses of Outer Space was established by General Assembly Resolution 1472 (XIV) of 12th December, 1959.

Its membership was continued and expanded by General Assembly Resolution 1721 (XVI) of 20th December, 1961 and under the terms of General Assembly Resolution 1721 (XVI) B, information is now furnished to this Committee by States launching objects into orbit or beyond.

General Assembly Resolution (1721 (XVI) 20th December 1961) which was unanimously adopted laid down certain principles, in particular "that States continue to be bound by international law and by the Charter of the United Nations in their activities in Outer Space and that Outer Space and celestial bodies are free for exploration and use by all States in conformity with international law and are not subject to national appropriation."

At its meeting in March 1962, the Committee noted the substantial role of the Specialised Agencies, notably WMO, ITU, and UNESCO, as well as that of the non-governmental organisation COSPAR in promoting and facilitating international co-operation in the field of space research for peaceful uses. It concluded that the aim of its own work lay primarily in co-ordinating appropriate space activities undertaken by Specialised Agencies, by governments and by non-governmental organisations. The Committee created a Scientific and Technical Sub-Committee and a Legal Sub-Committee both composed of representatives of all its Members.

Under the terms of General Assembly Resolution 1721 (XVI)D, the Specialised Agencies have prepared reports for the Secretary-General of the United Nations on international co-operation in the peaceful uses of Outer Space so far as their own functions and responsibilities are affected. These reports were submitted by the Secretary-General to the Economic and Social Council at its thirty-fourth Session and to the 17th Session of the General Assembly which has also had before it a report submitted by its Committee on the Peaceful Uses of Outer Space.

#### **Method Adopted By The David Davies Study Group**

Most of the substance of the Draft Code prepared by the Study Group has already been treated in published writings throughout the world. These writings have been carefully examined and it has been noted that in regard to major aspects of Space Law there are important instances of agreement among writers on both sides of the iron curtain. To a large extent this may also be seen from the summary records of the United Nations Committee on the Peaceful Uses of Outer Space as well as from the reports of the Specialised Agencies and the working relation-

ship established between members of COSPAR. This conclusion is fortified by the terms of General Assembly Resolution 1721 (XVI) of 20th December, 1961, cited above, which laid down various principles for the guidance of States in their exploration and use of Outer Space.

Accordingly, the Study Group concluded that this is a good time to publish a document bringing together what appear to be the basic principles of the developing space law. It has, therefore, drawn up this Draft Code of Rules on the Exploration and Uses of Outer Space with explanatory comments. These comments serve to show the reasoning behind the formulation of the rules and to point to the rules of international law and the UN Charter which are applicable in terms of the General Assembly Resolution 1721 (XVI) referred to above.

This form of Draft Code will, it is hoped, present itself as a possible model for an international agreement on co-operation in the peaceful exploration and use of Outer Space and, at the least, as a statement of principles which, though without doubt controversial in some instances, may for that very reason stimulate a focussed and fruitful discussion.

### The Draft Code

1. In this Draft Code,

'aircraft' means any craft which depends, as means of flight upon the consumption of air, or upon aerodynamic lift, or both;

'spacecraft' means any craft, capable of orbital movement or manoeuvre in outer space and includes any craft which is being operated as a space station;

'airspace' means the volume of space between the surface of the earth at sea level and an altitude of 80,000 metres above it;

'outer space' means space outside the airspace;

'state' includes, where appropriate, nationals of the State engaged in the exploration or use of outer space.

'international body' includes the United Nations and its specialised agencies and any other organisation or body, whether inter-governmental or non-governmental, engaged in, or having a scientific or technical interest in the exploration or use of outer space.

#### *Comments*

i. Like all proposed solutions of the initial problem these definitions use in varying combinations both physical and functional criteria, namely, the physical characteristics of airspace and outer space, and the uses to which they are, or are not, to be put. It is indeed doubtful whether any determination of boundaries in exclusively physical terms is possible.

ii. What seems reasonable is that any regime for outer space should cover the movement of spacecraft, orbiting the earth, even though its perigee may be within the atmosphere of the earth. Thus a satellite, having its perigee at an altitude where the atmosphere is dense enough to impose a 'braking' effect on its flight, or a satellite designed to make a controlled return to the Earth's surface, should both while in orbit be deemed to be space craft.

At the present time the lower effective limit of perigee is in the region of the altitude of one hundred miles, since below that the life of the satellite is too short to be useful, and it is possible that an altitude of about seventy miles would be the limit for effective orbiting, since below that friction would become too great. The notion of effectiveness here is to be understood in terms of the scientific uses of spacecraft.

iii. The principle that each State has sovereignty over the airspace above its territory is now an established rule. Although the Soviet Union is not a party to the Chicago Convention, it has adopted the rule in substance in its own legislation.

Neither the Paris Convention in 1919 nor the Chicago Convention defined

the altitude of the airspace, for the purpose of sovereignty, nor has it been authoratively defined elsewhere.<sup>1</sup>

As far as the performance of existing conventional aircraft is a guide to the definition of airspace, the ramjet which makes more efficient use of such air as is available, can 'breathe' at greater heights than jet — or piston-engined — aircraft, but twenty-five miles is probably the outside limit of effective aerodynamic lift.

iv. There are, however, three considerations which favour a definition of airspace yielding a more extended sovereignty than twenty-five miles; the fact that airspace begins to lose its character of a continuous medium only when a height of fifty to fifty-five miles is reached; the likely range of effective control of objects from the ground; and the logic of treating the frontier between airspace or outerspace as being at or near orbiting altitude.

The first consideration suggests that craft may yet be designed to operate at altitudes nearer this limit than now seems possible.

The X-15 is a rocket-driven winged machine which flies as an aircraft while aerodynamic lift is available but which can be operated as if it were a spacecraft, under a different system of controls, when aerodynamic lift fails. The X-15 has already attained an altitude of forty-seven miles, and its descendants will certainly go higher. It is believed that such hybrid craft should be subject to the regime of that portion of space in which it is at any time operating, and that its existence does not call for any modification of the area of sovereignty.

It is now likely that control over spacecraft passing over the territory of a State, may be effectively in the hands of that State to far greater heights than was once supposed; in other words, while it was thought a few years ago that interference with, or destruction of, spacecraft from the territory over which they were passing, would at best be possible only with the greatest difficulty, diversion, destruction or even capture of spacecraft is probably now, or may soon become, quite practicable.

While seventy miles is indicated as the present limit of effective orbiting, and there is a case of raising the altitude of sovereignty accordingly to perhaps seventy-five miles, orbiting effective for some purposes may yet be achieved at lower limits.

v. Any particular altitude chosen as the limit of sovereignty over the airspace may appear arbitrary and be controversial, but, for the avoidance of excessive claims and by the other foregoing considerations, the relatively low altitude of about fifty miles is suggested here as the limit of sovereignty and the beginning of outer space.

vi. 'spacecraft' as defined includes missiles and passive craft.

2. 1 Outer space, and the celestial bodies therein, are recognised as being *res communis omnium*, free for exploration and use by all States in conformity with the provisions of this Draft Code, and neither outer space nor the celestial bodies in it are capable of appropriation or exclusive use by any State.

#### *Comments*

vii. This Section attempts the outline of a regime for outer space. It makes no distinction between peaceful and military purposes, beyond what is implied in the applicability of U.N. Charter provisions. It has been brought into line with General Assembly Resolutions on the uses of outer space.

viii. The principle that outer space is *res communis* seems now to be generally accepted, though not necessarily of course in respect of outer space as defined in Section 1 above; but the fact that there is as yet no international agreement as to the lower limit of outer space does not qualify the principle any more than disagreement as to the width of the territorial sea alters the status of the high seas.

<sup>1</sup> See *infra* note 3.

ix. It is probable that of the Earth's nearer neighbours in space only the Moon, Mars, and Venus offer chances for landing and establishing stations, though planetoids such as Eros might conceivably be converted into space stations. The proximity of the outer planets will, no doubt, be visited but their surface conditions, so far as they are known, seem to rule out the possibility of landing for a long time to come.

On September 13, 1959, the Soviet lunar probe landed on the Moon. However any consequent claim of sovereignty was repudiated by the Soviet Authorities, and Soviet writers have been inclined to favour the "common use" of celestial bodies. The General Assembly Resolution 1721 (XVI) unanimously adopted on December 20th 1961, is important because not only did it contain the principle that "outer space and celestial bodies are free for exploration and use by all States in conformity with international law and are not subject to national appropriation," but the United States and Soviet Union both supported it. In the absence of such an agreed principle, it would have been necessary to assert that claims to sovereignty over the celestial bodies, or portions of them, could not be recognised even as formal claims, unless they satisfied tests not less strict than those for the acquisition of territory upon the Earth.

2. 2 Subject to the provisions of this Draft Code, all States shall, for themselves and for their nationals, have equal rights in the exploration and use of outer space, including free navigation by means of spacecraft, the establishment of space stations and other like devices, astronomical and physical observations by optical radio and other methods, and the landing on and exploration and use of celestial bodies.

*Comment*

xi. The principle of equal rights flows from Article 2(1) and (2) of the U.N. Charter. It requires that States shall act in good faith, and with a due regard for the rights of other States, in the exploration and use of outer space and celestial bodies. In particular, mutual interference between space operations must, by due care and co-operation, be reduced to a minimum.

2. 3 In the exploration and use of outer space and celestial bodies States and international bodies (a) are bound by international law and by the provisions of the United Nations Charter and other international agreements, which may be applicable; (b) shall, to the greatest practicable extent

(1) exchange information on scientific research programmes to secure maximum economy and efficiency of operations;

(2) exchange scientific personnel for particular programmes;

(3) exchange and make freely available scientific observations, data, and conclusions from research;

(4) seek co-operation with the specialised agencies of the United Nations and other international bodies which have a scientific or technical interest in outer space;

(c) are not precluded from employing military personnel or equipment for scientific and peaceful purposes.

*Comments*

xii. There is no limitation, express or implied in the U.N. Charter, of the applicability of Charter provisions to terrestrial activities.<sup>2</sup>

It may be useful to indicate briefly some of the Charter provisions which appear to be applicable to the uses of outer space:

1. General:

Articles 1(4) and 2(1) and (2);

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<sup>2</sup> See for example the acceptance of this principle by the United Nations Ad Hoc Committee on the Peaceful Uses of Outer Space, Report (July 1959) A/4141: Part 1, Para. 35; and General Assembly Resolution, A-XIV, para. 1 (a).

## 2. Military uses of outer space:

Articles 2(4); 11(1) and (2) and (3); 34 and following; 39-42 and following; 51.

## 3. Scientific research and development in outer space:

Articles 55(b) and 56; 59.

The position of the few non-members of the U.N. is that their uses of outer space, if any, would be subject to U.N. control under Article 2 (6) of the Charter. See also General Assembly Resolution 1721 D (preamble) -XVI.

xiii. It is generally supposed that the Chicago Convention is confined to the operation of aircraft, defined in the Paris Convention 1919 and Chicago Convention Annexes as "any machine which can derive support in the atmosphere from reactions of the air." However, airspace is not defined and it does not follow from the definition of aircraft that airspace is to be understood as confined to that volume of space in which aircraft, so defined, can operate.<sup>3</sup> Thus Article 36 of the Chicago Convention might be regarded as applicable to the flight "over its territory" of a machine similar to the X-15.<sup>4</sup> Again, if a machine of this type were to be developed, capable of being flown without a pilot, there is no reason why Article 8 of the Chicago Convention would not apply even though the flight of such machines was above the air-space.

xvi. The ITU has already promulgated regulations governing the use of radio frequencies by spacecraft, and a conference to consider further developments is planned for 1963.<sup>5</sup> UNESCO has been consulted by ITU on the development of communications satellites, and is interested in the possibility of their use for educational purposes. UNESCO also intends to seek ways of improving the international network of geophysical and astronomical laboratories by exchanges of scientists and technicians and by training schemes. The use of outer space for weather forecasting and weather control also falls plainly within the ambit of the World Meteorological Organisation.<sup>6</sup> The World Weather Watch is designed as a cooperative global observing and prediction system based on World Centres and Regional Centres. The establishment of World Centres in Moscow and Washington has been agreed. COSPAR is already preparing a guide for World Data Centres which calls for detailed international agreements on the exchange of data and information. It is also preparing international codes for the transmission and reception of satellite data and has formulated recommendations for the rational distribution of tracking stations.

xv. Paragraphs 2.3b and c are adapted from Articles 111 and 1(2) of the Antarctica Convention 1959.

2. 4 No State or international body shall put the airspace, outer space or the celestial bodies, to uses which cause, or are likely to cause, modifications of the environment of mankind unless the prior agreement of the appropriate international body has been obtained that such modifications are acceptable.

*Comment*

xvi. This problem is plainly urgent. The appropriate body would be one relying upon international scientific opinion and would be preferably the United Nations or an agency established by it. The standards of risk and acceptability of modifications of the environment of man would be fixed by existing rules of international law and practice and by considerations first of the protection of

<sup>3</sup> The United States, United Kingdom and USSR have not committed themselves to any ceiling for the airspace: see official statements by the U.S. Government and the U.K. Government cited by F. B. Schick, *Space Law and Space Politics*, 10 I.C.L.Q. 687 (1961).

<sup>4</sup> The X-15 is an 'aircraft' within the definition cited above, though it is not at all a conventional aircraft. Compare also Art. 3 (b) and (c) of the Convention.

<sup>5</sup> See General Assembly Resolution 1721 D-XVI.

<sup>6</sup> See for example W.M.O. Convention Art. 2 and General Assembly Resolution 1721 C-XVI.

human, animal and plant life on the Earth, and secondly of other uses of outer space. At the recommendation of ICSU, COSPAR has already established a consultative group, drawn from the fields of astronomy, radiation physics, atmospheric physics and chemistry, tele-communications and microbiology, to examine all experiments, carried out with spacecraft, which might have potentially harmful effects.

2. 5 No spacecraft carrying any type of warhead or otherwise designed as a weapon for use against targets on the earth or in the airspace, shall be placed in orbit around the earth, or celestial body, or be carried in or launched from any space station or celestial body.

*Comments*

xvii. A ban upon the launching of 'orbiting bombs' appears among the recent disarmament proposals put forward both by the USA and the USSR. It is possible therefore that agreement may be reached upon such a ban as a part of a separate arms control agreement or of more extensive disarmament.

xviii. The prohibition is limited to spacecraft designed as weapons whether of conventional, nuclear, chemical or bacteriological warfare.<sup>7</sup> It does not extend to surveillance or reconnaissance satellites, which may primarily serve military purposes, yet have the advantage that they contribute to an 'open world' and so increase rather than diminish security.

2. 6 Every spacecraft shall be so designed that radio transmissions to and from it do not interfere with other telecommunications systems, and cease when its mission is completed.

3. 1 Subject to the provisions of this Draft Code, any State or international body may establish stations, manned or unmanned, upon a celestial body for its exploration or use.

3. 2 The establishment of military stations upon any celestial body and the use of such stations or of a celestial body for the purposes of war is prohibited.

3. 3 The testing of any nuclear device or the disposal of radio-active waste upon any celestial body is prohibited.

*Comment*

xix. Paragraphs 3. 2. and 3. 3. are adapted from Articles 1(1) and V of the Antarctica Convention 1959. The need to dispose of radioactive waste from nuclear processes is already presenting grave problems. It is possible that, in order to avoid encumbering the earth or celestial bodies with these dangerous substances, methods of disposal in outer space may be devised.

3. 4. In the operation and use of spacecraft, all practicable steps shall be taken (a) to prevent the contamination of any celestial body by terrestrial microorganisms, or of the Earth by harmful microorganisms brought back from a celestial body; and (b) not to waste or spoil mineral deposits or samples on celestial bodies.

*Comment*

xx. WHO intends studying the environment conditions surrounding space travellers and the 'unevaluated possibilities of the transfer of biological agents between the earth and its extra-terrestrial environment' that are related to human biology and public health.

UNESCO already supports the work of COSPAR, the international scientific unions and other scientific bodies in planning an approach to the study of extra-terrestrial life and in examining practical implications.

3. 5 Stations on celestial bodies should as soon as practicable be placed under the supervision of the United Nations: provided that

- a. a State which establishes or permits its nationals to establish a manned station, may exercise jurisdiction over all persons in the station and in that area around it over which movement is necessary for the maintenance and use of the station;
- b. an international body which establishes such a station may exercise a similar jurisdiction by international agreement.

<sup>7</sup> See also Chicago Convention, Art. 35.

*Comments*

xxi. Supervision by the United Nations might be exercised initially through the Committee on the Peaceful Uses of Outer Space and later through a specially constituted international agency. It would include the right to visit and inspect the station.

xxii. Jurisdiction is to be understood as covering the internal administration of the station and its personnel and as including a right to exclude other persons, vehicles or craft from the area, upon a reasonable belief that their entry would be injurious to the station or its use.

4. 1 No spacecraft launched from the territory of any State may at any stage of its flight enter the airspace of another State without the consent of that State: provided that

a. such consent shall not be withheld if prior notice has been given to that State of the intended flight, and it has been shown to its satisfaction that the flight is solely for scientific and peaceful purposes and shall be so controlled as to obviate danger to aircraft;

b. any craft capable of operating both as a spacecraft and as an aircraft shall for the purposes of its use of the airspace be deemed to be an aircraft;

c. a manned spacecraft may enter the airspace without prior consent for the purpose of making an emergency landing, but shall be subject to the provisions of Section b.

*Comments*

xxiii. This paragraph establishes a controlled right of passage for spacecraft through the airspace of States, a right which in practice is likely to be exercised by spacecraft returning to the surface of the earth in a shallow glide rather than by those taking-off. It seems desirable to preserve the existing rule of air law in respect of the flight of spacecraft.

xxiv. Prior notice under this and other paragraphs of this Draft Code might be given through an international agency, if such were established.

The notice should contain in any case a statement of the radio frequencies to be used in communication made to and from the spacecraft and a description of its means of propulsion and of its orbital characteristics, including transit points.

Notice should be given not less than fourteen days before the launching and could serve as the basis of the international registration of spacecraft. The UN Committee on the Peaceful Uses of Outer Space has already acquired certain regulatory functions including the registration of launchings. COSPAR has sponsored the international 'space-warn' system for the transmission of data on rocket and satellite launchings.

4. 2 Save in the case provided for in Section 4. 1c, any State may divert or destroy any spacecraft which enters its airspace without the consent prescribed in Section 4. 1.

*Comment*

xxv. The liability of or damage to other States as a result of the diversion or destruction by State B of a spacecraft, for the launching of which State A is responsible, might be attributed either to State A alone, or to State A and State B jointly. This is a matter of later agreement.

5. 1 Subject to the provisions of Section 5. 2., every spacecraft shall be registered in a State, in accordance with its laws and regulations,<sup>8</sup> and also with the United Nations Committee on the Peaceful Uses of Outer Space.

5. 2 Every spacecraft to be launched by an international body shall be registered with the Committee on the Peaceful Uses of Outer Space, which shall issue a registration mark.

5. 3 For all purposes including that of any claim concerning the activities of a spacecraft:

<sup>8</sup> Compare Chicago Convention, Art. 19.

- a. every spacecraft to which Section 5. 1 applies shall be deemed to have the nationality of the State in which it has been registered, and whose nationality and registration mark it bears, or in the absence of such registration, of the State responsible for its launching and
- b. throughout its life shall, with its component parts, so long as they are identifiable, be deemed, in the absence of special agreement, to be the property of the State concerned under Section 5. 3a or of the international body registering it, as the case may be.

*Comment*

xxvi. The suggested rule as to property in spacecraft is in part to preclude any suggestion that a spacecraft, launched so as not to return to the surface of the earth, is *res derelicta*.

5. 4 No spacecraft shall be operated by private persons or corporations save by licence granted by the State of which they are nationals. Any such licence shall include the provisions of Sections 3, 6, 7 and this Section as part of its terms.

*Comment*

xxvii. This paragraph would need considerable elaboration when private operators entered the field, but rests on the principle that the nature of space operations requires a continuing state of responsibility for them, whatever arrangements may be made between a State and private operators.

6. 1 The State or States or international body responsible for the launching of a spacecraft shall be liable for any breach of this Draft Code in which it may be involved, for any injury or loss caused by the spacecraft, or any part of it
- a. by physical impact, contamination, or otherwise, to any person or property whatsoever outside the territory of the State responsible for the flight of the spacecraft;
  - b. as a result of collision or navigational interference, to any aircraft,
    - 1. in the airspace of another State: or
    - 2. of a nationality other than that of the spacecraft, without proof of negligence in the operation of the spacecraft being required.
6. 2 Liability for injury or loss under the foregoing paragraph shall not exceed in amount (fifty million U.S. dollars) or its equivalent.

*Comments*

xxviii. This Section does not cover injury or loss on a State's own territory, or in its airspace save in respect of foreign aircraft, and this seems proper in what is basically an international code.

xxix. The draft also makes no provision for collision between spacecraft in outer space. Broadly it is reasonable to hold that in such a case the operating States should each bear their own loss, but in the event of an international supervisory agency being established, prior notice to it of launchings of spacecraft might be required, failure to give notice constituting fault in the case of damage to other spacecraft.

xxx. Contamination may take broadly two forms; damage by radiation from a nuclear-powered spacecraft, and contamination of living organisms of the Earth by alien and harmful microorganisms brought by spacecraft returning from celestial bodies.

xxxi. The responsibility of an international body would, for the enforcement of claims, depend in part on its character and structure, and would need working out in greater detail.

7. Every State shall permit, and as far as possible assist, the recovery of a spacecraft, or any component part of it, which lands on its territory, and the return of any person travelling in it, by or to the State from which it was launched: provided that its entry into the airspace above the territory in which it lands was in conformity with Section 4, and provided further that it has been registered as provided in Section 5.

*Comment*

xxxii. As drafted this would not exclude the recovery and return of a spacecraft which had caused damage under Section 6.

8. 1 If any dispute arises between States
  - a. out of the conduct of operations in the exploration or use of outer space and the celestial bodies; or
  - b. as to the interpretation or application of this Draft Code or if any claim is made between States under this Draft Code; the States concerned shall endeavour to settle such dispute or claim amicably by consultation or other appropriate procedure.
8. 2 States undertake to accept the jurisdiction of the International Court of Justice over any dispute or claim which is covered by the preceding paragraph, and is not settled thereunder.

*Comments*

xxxiii. It seems desirable to distinguish a. and b. so that a *casus omissus* may as far as possible be avoided.

xxxiv. The latter part of paragraph 8. 1 is modelled on the Antarctica Convention 1959 Art. III (3).