

IAC-04-IISL.2.15

LEGAL ASPECT OF THE INTERNATIONAL CHARTER ON SPACE AND MAJOR DISASTERS

Atsuyo Ito, LL.M.

Ph. D Researcher

Institute of Space and Telecommunications Law (IDEST), University of Paris XI

azzito@yahoo.com

ABSTRACT

The International Charter on Space and Major Disasters is the first internationally coordinated and comprehensive system that integrates different space resources and makes them available for easier access by the wider community. It is a good example of a concrete implementation of key principles of space law, but simultaneously its operation invokes the need for a more comprehensive legal regime of earth observation (EO). The purpose of this paper is to examine the legal regime surrounding the Charter and show how the Charter highlights a current limitation of the legal regime of EO specifically with respect to responsibility and liability.

INTRODUCTION

Remote sensing from the high vantage point of space provides a powerful tool to gain understanding of the ever-changing environment on the Earth. Space-based remote sensing and has been used for a variety of purposes – from mapping to weather forecasting. Satellites can make repeated observations of specific areas of interests thus they are well suited for monitoring the progress and effects of natural and man-made disasters. Remote sensing satellites demonstrated this capability in the case of Chernobyl accident in 1986.

The International Charter on Space and Major Disaster¹ is an extensive international

cooperation amongst satellite operators to provide access to critical space assets to communities worldwide that are afflicted by natural or man-made disasters. The Charter service implements the principles derived from international space law, however it also raises issues requiring amendment to the legal regime of EO specifically in connection to liability. The paper explains the background of the Charter, examines its surrounding legal environment, and finally examines the waiver of liability under the Charter in connection with the Samaritan Principle.

The Background of the Charter

The Charter was initiated by European Space Agency (ESA) and Centre National

¹ Charter on Cooperation to Achieve The Cooperation Use of Space Facilities in the Event of Natural or Technological Disasters [Hereafter: the

Charter] The document is available at http://www.disasterscharter.org/main_e.html (Last accessed: 26 August 2004).

d'Etudes Spatiales (CNES) following the Third United Nations Conference on the Exploration and Peaceful Use of Outer Space (UNISPACE) III² conference in 1999. It was signed on October 20, 2000 and has been operational since November 2000. The Charter now embraces six member space agencies, namely, CNES, ESA, Canadian Space Agency (CSA), National Oceanic and Atmospheric Administration (NOAA), Indian Space Research Organisation (ISRO), Comision Nacional de Actividades Espaciales (CONAE) and other organizations serving as intermediaries. In response to authorized requests, each of the partner space agencies provide data from their satellites free of charge to the States affected by natural or man-made disasters³. Disasters excluded from the scope of the Charter are: war, armed conflicts, humanitarian actions, oil spill, ice monitoring, droughts, and routine epidemiological outbreaks⁴. The Charter is triggered via an intermediary, referred to as Authorized Users, being the relief agencies of the countries whose jurisdiction cover the member space agencies or other authorized entities – such as EU and UN Office of Outer Space Affairs (UN-OOSA). The

Authorized Users hand over the operation to a Project Manager who becomes responsible for the whole course of operation: tasking of satellites, acquiring and delivery of data. Thus, the afflicted States can use the data to monitor their disasters, and/or to assess effectively the nature and extent and then respond to the aftermath of these disasters. By the end of August 2004, there had been 52 cases of Charter activation.

The whole operational cost of Charter activities in acquiring the satellite image, processing the data and even producing derived products is to be covered by the partner space agencies. Article 3.1 of the Charter stipulates that “the parties shall develop their cooperation on a voluntary basis, no funds being exchanged between them”. Thus, the Charter service is provided voluntarily. Its concept is based on goodwill and best endeavours. The Charter is not a binding instrument embodying parties with full legal duties and obligations⁵. Rather it incorporates agreements expressing the intention of cooperation between the space agencies to assist the afflicted States.

Surrounding Legal Environment of the Charter

The Charter exists and operates within the general legal framework of space law since its operation requires space activities, specifically, sensing of the earth from space. The current EO legal framework consists of the Outer Space Treaty⁶, which governs

² UNISPACE is a UN organised international meeting where UN members and space agencies gather. At UNISPACE III the use of space technology for solving regional and world problems was discussed along with the need for international cooperation and use of space applications among developing countries.

³ ESA provides data from ERS and ENVISAT, CNES provides data from SPOT, CSA provides data from RADARSAT, ISRO provides data from IRS, NOAA provides data from POES, GOES and CONAE provides data from SAC-C.

⁴ Acceptance Criteria can be found in 2002 Annual Report of International Charter on Space and Major Disasters <http://www.disasterscharter.org/downloadable/2ndAnnualReportPublic.pdf> (Last accessed: 24 August 2003).

⁵ Cited from the response from Marco Ferrazzani, ESA personnel, on 7 August 2003.

⁶ Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, 27 Oct 1967, 610 *UNTS* 205.

general space activities, and the UN Remote Sensing Principles⁷, a General Assembly resolution specifically dealing with remote sensing activities from space.

Legal Basis for the Charter Operations

The Charter is a concrete implementation of certain principles derived from the Outer Space Treaty and repeated or specified in the Remote Sensing Principles namely, (1)the freedom of outer space, (2) the principle of common good of humanity, and (3)the principle of cooperation.

As to (1), the Charter operation bases itself on the remote sensing of the various countries affected by disasters. Article-I of Outer Space Treaty established the freedom to conduct space activities by stipulating that “outer space shall be free for exploration and use by all States”. This applies to all countries whether or not they are parties to the treaty. Remote Sensing Principles refer to Article-I of Outer Space Treaty and specifically established the legality of sensing the Earth’s surface. States are free to sense anywhere in the world: their own territories, territory beyond their jurisdiction or foreign territories.

The second principle (2) is the Common Interest Principle. This principle is enshrined in the phrasing “The exploration and use of outer space shall be carried out for the benefit and in the interest of all countries....and shall be the province of all mankind”. Article-I of the Outer Space Treaty designates that the use of space technology is to serve the common interest principle for the common good of

humanity⁸. A similar provision is present in the Principle II of Remote Sensing Principles, which stipulates that “remote sensing activities shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic, social or scientific and technological development, and taking into particular consideration the needs of the developing countries”.

The Charter service is not limited to certain States, but open to all potential afflicted States. It is for the benefit of all mankind to utilise satellite imagery to assist the afflicted States with regard to disaster management. The Charter specifically opened the door to those States, particularly among developing countries, which did not have remote sensing capabilities of their own and/or appropriate partnerships to benefit from them. In that respect, under the Charter, the need by developing countries, which desperately in need for access to the critical space-based information, has been fulfilled.

The third principle (3) is international cooperation. Articles-I & III of the Outer Space Treaty, supported by the General Assembly Resolution on International Cooperation⁹ state that space activities shall promote international cooperation. The Charter is an extensive international cooperation – not just amongst States but involving different types of entities of various nations. The Charter brings together divergent bodies such as governmental entities (e.g. member space agencies like ESA) and relief agencies (e.g. Canadian

⁷ UNGA resolution 41/65 on The Principles Relating to Remote Sensing of the Earth from Outer Space of adopted on 3 December 1986 [Hereafter: Remote Sensing Principles].

⁸ ABEYRANTE, R. State Responsibility in Classical Jurisprudence” *Annals of Air and Space Law* vol, XXIII 1998 p.14.

⁹ UNGA resolution 51/122 Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the interest of All states, taking particular Account the Need of Developing Countries adopted on 4 Feb. 1997.

Civil Protection), academic institutions (e.g. Service Régional de Traitement d'Image et de Télédétection (SERTIT)), value-added entities and private entities (e.g. Space Imaging) for its complementary data provision and even different individuals as Project Managers. These entities work in harmony to provide effective aid to the afflicted States. The Article-V of Remote Sensing Principles reaffirms the significance for international cooperation in conducting remote sensing activities.

The Charter also enables the universal sharing of information, linked with the principle of international cooperation. Article-XI of the Outer Space Treaty stipulates that "Signatories are obliged to inform the United Nations Secretary General, as well as the public and the international scientific community, to the greatest extent feasible and practicable, of the nature, conduct, locations, and results of space activities". The Charter has created a mechanism to share effectively the knowledge derived from space capabilities for disaster management. Charter member agencies are implementing this provision by constructing a database of disaster management 'know-how' in the form of preparing scenarios for which satellites can be used to respond to the different types of disasters and the post-activation reports indicating the overall assessment of the whole activation process – including problems and findings.

Although the provision concerning sharing of information under the Outer Space Treaty is ambiguous, Remote Sensing Principles provide a concrete provision. Principle XII stipulates general data availability. The principle XII has established the rights of sensed States to have access to the data derived from their territory. Principle XII stipulates that "as soon as the primary data and the processed data concerning the territory under its jurisdiction are produced,

the sensed State shall also have access to them on a non-discriminatory basis and on reasonable cost terms". This means sensing States have an obligation to provide the data to sensed States and the data are available to sensed States and other States interested in the data at the same cost.

The Charter allows the provision of data to any afflicted States on a non-discriminatory basis providing they follow the designated process to request the Charter service. Furthermore, under the Charter, sensed States have access to the data in much more favourable way than stipulated by UN Remote Sensing Principles. "On reasonable cost terms" is not defined under the Remote Sensing Principles but it does not mean free-of-charge. Indeed, many space agencies charge end users with at least the marginal cost such as "Cost of Fulfilling User Requests¹⁰", the data policy set for LANDSAT- 7 or "at or near the cost of reproduction of the data" the data policy set for the category-1 use for Envisat¹¹. The Charter is innovative in that it provides the service completely free-of-charge to all the afflicted States.

Insufficiency of the EO regime

However, the Charter operation is not sufficiently covered in all aspects by the current EO regime. For instance, EO satellites with very high resolutions may fall outside the scope. This already raises issues since the data from IKONOS, with its 1-metre resolution (or better), has been provided complementarily to afflicted States to assist Charter operations. Likewise, it is doubtful whether post-remote sensing

¹⁰ Data Policy for Landsat 7 Land Remote Sensing Policy Act 1992 15 USC Chapter 82 sec, 5615.

¹¹ ESA Envisat Data Policy, ESA/PB-EO(97) rev.3, Paris, (European Space Agency), 19 Feb. 98; (European Space Agency, Earth Observation Programme Board), Sec 2 General Principles, 2.1 Legal Principles, para.2, at 2.

activities, such as use of data and /or value adding activities specifically combining with other GIS materials, are covered. Under the Remote Sensing Principles, remote sensing activities are defined as “ the operations of remote sensing space systems, primary data collection and storage stations, and activities in processing, interpreting and disseminating the processed data¹²”. The weak nature of these Remote Sensing Principles has been indicated by Brazil in its working paper submitted during Committee on the Peaceful Use of Outer Space (COPUOS) 2003¹³ where they strongly insist that Remote Sensing Principles are not corresponding properly the current situation of EO and need to be changed.

Furthermore, there is a problem of responsibility and liability. Although Article-VI of the Outer Space treaty establishes the individual State’s responsibility for national space activities; the provision is too general to determine as to what extent they are responsible.

Article-VII of the Outer Space Treaty, together with the Liability Convention 1972¹⁴, establishes international liability of a launching state for the damage caused by a space object or component part incurred on the Earth. Article-1 (a) of the Liability Convention defines damage as loss of life, personal injury or other impairment of health or loss of or damage to property. The

¹² Principle I (e) of Remote Sensing Principles.

¹³ Brazilian Proposals to the Committee on the Peaceful Use of Outer Space for new items to be considered by the Legal subcommittee at its forty-third session 2003.

‘Why is an international convention on remote sensing of the Earth from outer space necessary?’ A/AC.105/C.2/L.244.

¹⁴ Convention on International Liability for Damage caused by Space Objects 29 Nov 1971 24 U.S.T 2389.

most common interpretation of this is that it covers the identifiable physical damage directly caused by the space object. This only means that if the remote sensing satellite, just like other satellites, falls on the Earth’s surface, the launching State has to be liable for the damage caused.

Principle-XIV of the Remote Sensing Principles does not provide responsibility specifically applicable to remote sensing activities. It merely makes a connection to Article-VI of the Outer Space Treaty regarding general responsibility. Another problem of Principle-XIV is limiting the responsibility only to the State operating the remote sensing satellites¹⁵.

This is not sufficient to cover all the potential damage that might arise. Prof. Christol¹⁶ points out that, in the instance of state responsibility, a launching state should be held to the duty of accountability when harm has resulted from the wrongful or unlawful sale or distribution by its nationals of incorrect primary and processed data and analysed information. However, no specific provisions are mentioned – neither in the Liability Convention nor the Remote Sensing Principles.

Such damage rising from Charter operation is highly conceivable. The potential damage may include, for example, the misinterpretation of data leading to wrong instructions for evacuation given to the crisis victims resulting in more casualties. The conclusion here is that there is no clear liability regime concerning remote sensing.

Waiver of Liability under the Charter Operation

¹⁵ See *supra* 14.

¹⁶ CHRISTOL, C. Q. *Space Law: Past, Present and Future*, Kluwer Law and Taxation Publishers, Deventer, 1991, p.247.

However, such liability is not covered under the Charter as it does not itself have a liability regime of its own. On the contrary, any liability is clearly waived under the Charter. Article-5.4 of the Charter clearly stipulates that “The parties shall ensure that associated bodies which, at the request of the country or countries affected by disaster, call on assistance of parties undertakes to confirm that no legal action will be taken against the parties in the event of bodily injury, damage or financial loss arising from the execution or non-execution of activities, services, or supplies arising out of the Charter.” The intention of those who drafted the Charter was clearly that they do not wish to be held responsible for their favours.

Good Samaritan Principle

This waiver of liability is worth examining further in connection to a directly relevant legal principle, namely, the ‘Good Samaritan’ principle. This principle is a protection mechanism that waives or limits liability for people who aid others with the best of intentions but inadvertently cause some harm in the course of aiding. At first sight, the Good Samaritan principle precisely underlies the situation under the Charter, but closer examination of it shows that it does not. In order to determine whether the waiver of liability clause under the Charter is supported by the Good Samaritan principle, it is necessary to look at the Good Samaritan doctrine in depth.

The Good Samaritan doctrine has been used widely in different practices throughout the world¹⁷. In Canada and US, it is

¹⁷ Most Canadian provinces and territories have Good Samaritan laws to protect a rescuer from liability. In the US most states have Samaritan law to apply to all citizens.

incorporated as a concrete act¹⁸. Moreover, the principle is reflected in different national laws in European countries such as Germany, Netherlands, UK and France¹⁹. Since the Good Samaritan principle is incorporated into domestic law of many countries, the doctrine is considered to be reflecting customary international law.

There are certain conditions to be fulfilled in order for the principle to be applied. One is the ‘reasonableness of the rescue attempt’ and the other is the ‘absence of obligation’ to help the victim. Reasonableness of the rescue attempt is highly subjective term and therefore one should rather rely on the other factor - determining the absence of obligation. People with no special obligation to prevent harm can be called ‘bystanders’ and bystanders who prevent the harm are called Good Samaritans. Good Samaritan laws apply when someone is considered to be a ‘Good Samaritan’²⁰. Following this line of argument, it is necessary to examine whether or not space agencies & organizations party to the Charter are considered to be Good Samaritans – i.e. they have no obligation to

¹⁸ Enacted Act include Good Samaritan Act of Ontario, and Arizona Good Samaritan Act.

www.lopezl.com/lopez/legal.nurse.consulants.lnc/good.samaritanlaw (last accessed 23 August).

¹⁹ SMITS, J. *European Private Law On the perils of Principles without a programme and a Programme for the Future*, Kluwer Publishers, Deventer, 2000, p.21.

If the aider has worsened the condition of the imperilled person, many techniques are available to assess the rescuer’s conduct: from a separate provision in German law for *negotiorum gestio* through mitigation of damages in Dutch law to the presumption of a low standard of care in French and English law.

²⁰ SCHAUER, F. Walter Sinnott-Armstrong *The Philosophy of Law: Classic and Contemporary Readings with Commentary*, Harcourt Brace College Publishers, 1996, p.816.

distribute data in aiding both national and foreign bodies of countries affected by disasters.

Obligation to help?

If we look at various domestic laws of the countries to which the partner agencies belong, we find penal laws exist providing obligation to help people in distress, and others providing such duties to help in cases of special relationships – such as those between parents and child²¹. It is well known that in most of the civil-law EU nations, except for Finland and Sweden, such a general duty to come to the rescue of strangers is laid down in the national penal code²². In common law countries, like England, Ireland and USA, the general duty to rescue is absent but limited in the special relationship such as dependence, or in the case that a person occupies a position that requires him to act or in the case of a contract between the person and potential rescuer²³.

We have to look closely at this special relationship. In practice, the relationship of dependence is broadly interpreted. For instance, the American Good Samaritan doctrine holds that, whenever one voluntarily comes to the aid of another and the latter relies upon such undertaking, there is imposed duty of care upon the former²⁴.

The principle has been applied in many US cases, among which some involving air traffic control – such as *Ingham vs. Eastern Airline*²⁵. Under the American Good Samaritan principle, there is not necessarily presence of contract or personal relationship between the rescuer and rescue insofar as one aided counts on the aid by rescuer.

If we turn back to the Charter to examine the relationship between crisis victims and the Charter partners, they are not in contractual relationship as examined earlier. However, under the Charter, the partners and crisis victims may well be considered a relationship of dependency as latter request and count on the aid from the former who agrees to give voluntary assistance. Since the special relationship of dependency does not limit to blood relations, it could be construed that it includes intangible dependency. Therefore, under the Charter, one can construe that there exists obligation between crisis victims and partner agencies and therefore, Good Samaritan law does not apply.

National Penal Code or national approach imposing such obligations to render assistance to people in distress may be limited to national claims. However, such national law should not be neglected as municipal law may be used as evidence of international custom or of general principles of law, which are both source of

²¹ See *supra* 20 p.3.

²² See *supra* 19 p.4. National penal code which incorporated a general duty to rescue of strangers include; Netherlands(art. 450 Wetboek van Strafrecht 1886), Norway(art. 387Straffeloeven 1902)Italy,8art 593 codice penale 1930 on Ommissione di soccorso;the zanardelli Code of 1889, Denmark8art 253 Straffeloven 1930)

²³ See *supra* 20 p.6.

²⁴ Henaku, B.D.K. 'Expanding Global Navigation Services: Selected Legal Issues' Proceedings of Workshop on Space Law in the Twenty-first Century, United Nations Publications, New York, 2000, p.172.

See Sections 323 and 324 A Restatement of the law8second) torts vol 2 American Institute Publishers, 1965.

²⁵ *Ingham v. Eastern Airlines*, 373 F. 2d 227 at 236 (2nd Cir.,) See *supra* 24. The case was on the crash of Eastern airlines DC-7 passenger airplane on 30 Nov 1962 at Kennedy Airport in NYC. It was due to the negligence of air traffic controller to advise the pilot on the weather condition accurately. The US government was held liable on the ground that they are responsible for voluntarily providing the control service when it was not required.

international law²⁶. Since the Good Samaritan principle can well be considered to have a customary value, it may be invoked in support or alone in the international claims.

Moreover, such obligations may be enshrined in international law. However, it should not be forgotten that the obligation to help is enshrined in the Outer Space Treaty and the general principles of international law with which space activities are to be conducted in accordance²⁷. Under the general international law, such obligation of the partners is established through principles of good neighbourliness and humanity. Principles of good neighbourliness means 'willingness to cooperate with neighbouring States to inform a potentially affected State of relevant data and a willingness to take appropriate steps to address the legitimate concerns of those potentially impacted by the activities in another state'²⁸. It is reflected in Article-1(3) of the UN Charter, Friendly Relations Declaration of 1970, principle 2 of the 1992 Rio Declaration and incorporated into various treaties²⁹

²⁶ MALANCZUK, P., *Akehurst's Modern Introduction to International Law*, Routledge, London, 1997, p.64.

²⁷ Art. III of Outer Space Treaty states that States Parties to the Treaty shall carry on activities in accordance with international law, including the Charter of the United Nations.

²⁸ www.cec.org/files/pdf/COUNCIL/95-07e_EN.pdf (Last accessed: 26 August 2004).

²⁹ Various treaties include Treaty of Good-Neighbourliness and Friendly Cooperation Between the People's Republic of China and the Russian Federation (24/07/2001, Art 10(7) North American Agreement on Environmental Cooperation, Treaty of 27 February 1992 on Good-neighbourliness and Friendly Cooperation between the Federal Republic of Germany and the Czech and Slovak Federal Republic with which Germans and Czechs.

therefore, the obligation to render assistance to countries in peril also exists under international law.

Overall, despite the original view of the Good Samaritan Principle, which is meant to create incentive to help others, the reality shows otherwise: in both domestic law of civil law and common law, and under international law, there is obligation or a certain degree of imposed duty of care on the rescuers. It even can be invoked unfavourably for defendants. Hence, there exists a big discrepancy between the intention of the Charter partners and the general expectation of rescuers shown in the application of Good Samaritan Principles.

Understanding of various domestic law systems and the application of Good Samaritan Principles has highlighted the tendency that due care is strongly expected when rendering assistance. It raises a question within the Charter operation as to whether or not free provision of services is sufficient to justify the waiver of liability. The situation should be rectified unambiguously in such a way that the participating agencies will have an agreement to confirm the terms of the assistance to be provided, stipulating clearly that they waive or limit their liability. The discrepancy should be covered so that the both the interests of member agencies and potential victim countries are secured.

The close examination of the Good Samaritan Principle reaffirmed the need for establishing a clear liability regime applicable to the future operation of EO. It should incorporate aforementioned liability such as damage rising from misinterpretation and misuse of the data.

Conclusion

The Charter is based upon key principles derived from international space law, namely, the freedom of outer space, the principle of common good of humanity, and the principle of cooperation. Simultaneously, it has highlighted the insufficient nature of the current legal regime of EO in that it does not cover all the potential operations of the Charter. Amongst others, the lack of a clear liability regime has been highlighted and, specifically, the implications of the waiver of liability clause under the Charter not yet being supported by applied Good Samaritan Principles, which tend to take reliance by the rescued into particular consideration.

As an increasing series of EO programmes, such as the Charter and Global Monitoring for Environment and Security (GMES)³⁰, are implemented, and as an increasing number of countries begin to have remote sensing capabilities and/or have access to space-based assets, the development of an unambiguous legal regime covering EO should not be further delayed. An expanded regime should stipulate clearly what are the rights and obligations of sensed States & sensing States, data providers & data recipients and deal with different types of consequential liability.

Remote Sensing has been and continues to be a powerful tool for information gathering for aiding critical decisions. Therefore, unintentional (or indeed intentional) misuse and/or misinterpretation of data could incur

serious consequences. The need is high and urgent for further studies in the field of responsibility and liability covering terrestrial post-sensing activities from space to provide a proper regime that protects both victim and helper in disaster monitoring and mitigation.

³⁰ It is a joint Initiative of European Commission and European Space Agency, designed to establish a European capacity for the provision and use of operational information for Global Monitoring of Environment and Security. See http://www.gmes.info/what_is/index.html.

(Last accessed: 27August).