## **EDITORIAL**

## **Guest Editorial**

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On 4 October 1957, the first artificial satellite, Sputnik-1, was launched by the Soviet Union into an elliptical low earth orbit, inaugurating thus a new and exciting adventure for Mankind. This achievement was the starting point for the so-called Race to the Moon, essentially a race between the two superpowers of that time, the United States and the Soviet Union. For these countries, the conquest of outer space had considerable political implications, in terms of both international prestige and strategic lead, right in the heart of the Cold War. However, the landing of Apollo 11 on the moon on 20 July 1969 as well as the first steps of Neil Armstrong on the natural satellite of the earth led this conflict to a premature end, which resulted in waning interest in exploring outer space.

While the initial expectations for space exploration were not fulfilled as expected in the 60s, human activities in outer space continued with undiminished interest: Half a century later, outer space not only offers us tremendous new experiences, but also deeply affects our everyday life on earth, through the introduction of innovative and once thought impossible applications – such as satellite communications, the Global Navigation Satellite System (GNSS), satellite meteorology or map making. It is thus not surprising that modern life is clearly dominated by space applications.

Further, the future seems very promising as new space actors emerge, mainly coming from the private sector and intending to operate in areas that a few years ago would be classified as exotic, such as the extraction of asteroid mineral resources or the provision of 'space tourism' services.

Space law is the body of law that regulates activities in outer space. It is a branch of international law that grew rapidly, following the harsh US-USSR competition for dominance in the space area. It is therefore hardly surprising that its identity clearly reflects the international relations of the Cold War Era and the confrontation of the two space-faring powers of the 50s and the 60s. However, the interaction of the two superpowers finally resulted in an optimal balance, which was reflected in a set of fundamental principles initially formed in the context of the Resolution 1962 (XVIII)/1963 of the General Assembly of the United Nations and finally incorporated in the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies of 1967. These principles include: the freedom of exploration and use of outer space (which constitutes a 'province of all mankind') by all states without discrimination; the principle of non-appropriation of outer space; the use of the moon and other celestial bodies exclusively for peaceful purposes;

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the rescue and return of astronauts in distress; the establishment of state responsibility with respect to national activities, whether such activities are carried on by governmental agencies or by non-governmental entities; state liability for damages caused by space objects; and the preservation of the earth and the outer space environment.

These principles were further elaborated through the adoption of four more treaties, namely: The Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space of 1968; the Convention on International Liability for Damage Caused by Space Objects of 1972; the Convention on Registration of Objects Launched into Outer Space of 1975; and the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies of 1979. This last treaty failed to gain a wide acceptance by the states members to the UNCOPUOS (United Nations Committee on the Peaceful Uses of Outer Space) having, to date, only 16 ratifications, mainly due to the reluctance of states to sign a collective regime of exploitation of the moon, established by this treaty.

Through the years, this treaty law of outer space was further supplemented by soft law instruments (Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting, A/RES/37/92 of 10 December 1982; Principles relating to remote sensing of the Earth from outer space, A/RES/41/65 of 3 December 1986; Principles Relevant to the Use of Nuclear Power Sources in Outer Space, A/RES/47/68 of 14 December 1992; or the Space debris mitigation guidelines of the UNCOPUOS, A/RES/62/217 of 22 December 2007). However, the increasingly intense intervention of the private sector in the space area cannot be governed, in the long run, by texts of non-binding character. Sooner or later the international community should review the question of further adopting new conventional ('hard') provisions, either by amending the existing space treaties or by negotiating new international instruments. Another solution could be the adoption of a comprehensive outer space treaty, following the successful example of the 1982 United Nations Convention on the Law of the Sea.

Having all these in mind, this special issue of the European Journal of Law Reform aspires to being a broad overview of the current status of space law. It includes six contributions from the most highly qualified scholars and practitioners, which compose a captivating tour of the most important aspects of space law, in an effort to trace its history, to focus on its main aspects and to record its shortcomings. The papers highlight, inter alia, the contribution of the UNCOPUOS to the progressive development of space law; the legality of military operations in outer space, in view of the 'peaceful purposes' principle; the role of international governmental organizations such as the European Space Agency in space law-making; the legal dimensions of space debris remediation; the challenge posed to the existing regulatory regime by the forthcoming exploitation of natural resources in planetary bodies and, as food for thought, a reflection on the establishment and exercise of criminal jurisdiction with respect to offences committed in space.

So... I invite you to come aboard! – hoping this issue really will be 'a giant leap' in space law.  $^1$  George D. Kyriakopoulos, Guest Editor

See Neil Armstrong's quote when he descended the Apollo 11: "That's one small step for a man, one giant leap for mankind".