

Who Speaks for Earth? Towards a World Space Programme

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Abstract

Current laws governing who does what in space are weak or absent. Given that space transcends national boundaries, the United Nations may need to step up and into the void.



Space transcends national boundaries, yet Earth currently does not have sufficient unity in decision-making (Earthrise over the Moon as viewed from Apollo 8 in 1968; NASA)

Introduction

In his best-selling book, [Cosmos](#), the astronomer Carl Sagan asked “Who Speaks for Earth?” in a cosmic context. This is likely to become an increasingly important question as humanity continues to explore the universe around us. It is essentially a *political* question, but the technical and scientific achievements of space exploration can easily obscure the underlying geopolitical context. In the early years of the Space Age this context was dominated by Cold War competition, which provided the political driving force for such technical triumphs as the flight of Yuri Gagarin in 1961 and the landing of humans on the Moon just eight years later. However, although many scientific benefits resulted from this early period of competition, and especially from the [Apollo programme](#), international competition is essentially a negative geopolitical driver for space exploration.

Fortunately, over the ensuing decades more positive motivations for space exploration have come to the fore, and international cooperation has increased significantly. Fifteen nations, including the US and Russia, cooperate in the operation of the International Space Station (ISS), and twenty-six national space agencies, including the multinational European Space Agency (ESA), coordinate their activities through the [International Space Exploration Coordination Group](#) (ISECG). Indeed, the ISS provides a good example of a *positive* geopolitical driver for space cooperation because it was, at least in part, born out of a post-Cold War desire to build diplomatic bridges between Russia and the West. Whether this cooperation will survive the current crisis in Ukraine remains to be seen, but the underlying geopolitical logic for international cooperation in space will remain. Returning to an era of Cold War competition between nation-states, increasingly joined by poorly regulated commercial companies, is unlikely to be sustainable model for 21st century space activities.

The Need for International Cooperation

As we look to the future, it seems appropriate to recall the ‘Golden Rule’ of space exploration advanced by planetary scientist William Hartmann in his 1984 book [Out of the Cradle](#) (p. 182):

Space exploration must be carried out in a way so as to reduce, not aggravate, tensions in human society. Every decision, each policy, must be tested against this principle.

With this in mind, we can identify multiple areas where increased international cooperation and coordination in space activities will be required, including:

- Ensuring that human activities in space, for example competition for space resources, do not become potential flashpoints for international conflict.
- Encouraging investment in space development, including the use of space resources, while at the same time protecting scientifically and aesthetically important locations in the Solar System from potentially harmful interference.

- Enabling the scientific exploration of space on a scale beyond what is feasible for individual nations, or groups of nations, through the pooling of global financial, intellectual and human resources.
- Ensuring that the economic, scientific, and cultural benefits of space activities are fairly distributed to humanity as a whole and ensuring the long-term sustainability of outer space activities.
- Defining and implementing planetary protection policies, and managing interactions with any extraterrestrial life that may be encountered as space exploration proceeds.

Unfortunately, although the world will increasingly need to strengthen collaboration in all these areas of space activity, we currently lack sufficiently strong global political institutions legitimately to speak for humanity in the transnational domains beyond Earth. At present, human activities in space are guided by a framework of internationally recognized policies, including several intergovernmental treaties (most notably the 1967 [Outer Space Treaty](#)), and internationally accepted guidelines (such as the [COSPAR Planetary Protection Policy](#)). However, although these existing agreements provide an excellent foundation on which to build, they do not satisfactorily address many of the issues identified above and, in any case, would be difficult to enforce in practice.

A World Space Agency

A possible way forward was suggested in the early years of the space age. In the second (1960) edition of their book on United Nations reform, [World Peace Through World Law](#), Grenville Clark and Louis Sohn suggested the creation of a ‘United Nations Outer Space Agency’. This would be designed “(a) to ensure that outer space is used for peaceful purposes only; and (b) to promote ... exploration and exploitation of outer space for the common benefit of all mankind.” Significantly, one of its proposed functions would be “to prevent disputes relative to the occupation and control of the moon or any other planet ... by having the Agency take over [in the name of the United Nations] any control which may be advisable and possible as soon as any such bodies are reached [by spacecraft].” Clearly, this would provide for much stronger international oversight of space activities than the relatively weak treaty regime under which spacefaring nations currently operate.

The concept of a world space agency was revisited in an important, if rather overlooked, 1975 article by Seyom Brown and Larry Fabian on [Toward mutual accountability in the nonterrestrial realms](#). In order to give institutional underpinning to the provisions of the Outer Space Treaty, especially the provisions in Article I that space activities are “the province of all mankind” and “shall be carried out for the benefit and in the interests of all countries”, Brown and Fabian advocated the creation of an “Outer Space Projects Agency”. They envisaged that all countries would belong to this agency, and that, among other responsibilities, it would be “empowered to give final approval to all ... outer space exploration projects for civilian purposes, under guidelines requiring international participation and the international dissemination of all data and results.”

The success ESA, established in 1975 and now comprising 22 member states, clearly shows that large international space agencies are workable in practice, and can result in many scientific and cultural benefits. There has not yet been any serious attempt to expand this concept to a global scale, although a positive start was made in 2007 when fourteen of the world's space agencies developed the [Global Exploration Strategy](#). This initiative resulted in the formation of [ISECG](#), which could perhaps be viewed as a tentative step towards a global space agency.

Strengthening the United Nations

As advocated by Clark and Sohn, the obvious over-arching political authority for a world space agency would be the United Nations. Indeed, as space is a transnational domain it is especially appropriate that human activities in space should fall under UN jurisdiction. This was already recognized at the dawn of the space age by the creation of the [UN Office of Outer Space Affairs](#) and the General Assembly's [Committee on the Peaceful Uses of Outer Space \(COPUOS\)](#) in 1958. Since then, the UN has been instrumental in negotiating the current legal regime that governs human activities in space, and it continues to act as a valuable global forum for coordination, decision-making, and information-sharing related to international space activities. An excellent recent example is illustrated by the October 2021 General Assembly Resolution on [The "Space 2030" Agenda: space as a driver of sustainable development](#). Perhaps the time has come to give the UN operational responsibility for space activities, and the creation of a UN space agency would facilitate this.

However, even if furnished with its own space agency, the UN's ability to 'Speak for Earth' would be compromised because, as currently constituted, the world's citizens are not directly represented in its decision-making structure. Increasing the democratic accountability of the UN is desirable for many reasons, quite apart from space policy. One way to achieve this, as powerfully articulated by Jo Leinen and Andreas Bummel in their important and thought-provoking book [A World Parliament: Governance and Democracy in the 21st Century](#), would be to add an elected [Parliamentary Assembly](#) to the UN's governing organs. Deciding on the franchise of a UN Parliamentary Assembly would doubtless be fraught with difficulties, but it would greatly strengthen the legitimacy of the UN in all its areas of responsibility, on Earth and in space.

Conclusion

Compared to the present organisation of international space activities, these suggestions are far-reaching and may appear utopian. Yet, as the tempo of space activity ramps up in the 21st century, including the likely use of space resources and the possibility of encountering alien life, it seems unavoidable that significant strengthening of international space governance institutions will be required. The key proposals of establishing a world space agency, and greater involvement of the United Nations in space activities, were identified sixty years ago at the beginning of the Space Age. Implementing them would go a long way to satisfying Hartmann's 'Golden Rule' of space exploration and, crucially, answering Sagan's question of 'Who Speaks for Earth?'

