

## The coordination of space law

s the number of participants in space activity grows, so does the perceived need for norms, rules and regulations that can facilitate orderly and sustainable exploitation of the near-earth environment. I have not attended a space conference in the last several years, whether organised by policy specialists or engineers, in which the legal implications of space activity did not play a prominent part. These same conferences also highlighted a troubling area of consensus among legal professionals and technical ones: there are many critical questions for which current law provides no clear, broadly accepted answer.

Two examples can serve to highlight the importance of this uncertainty. In early April, the United Nations Institute for Disarmament Research organised a conference on space security in Geneva, Switzerland. My employer, The Secure World Foundation, and two others, the Simons Foundation and Charterhouse, were co-sponsors. Not only did speakers who addressed legal issues directly admit to their inability to provide unequivocal answers to important questions bearing on emerging problems such as debris removal, on orbit servicing and commercial space flight, technical experts admitted that their legal uncertainties and those of their organisations were affecting mission decisions in important ways. This perspective of uncertainty was also perceptible ten days later at the large and increasingly international Space Symposium presented by the Space Foundation every year in Colorado Springs, Colorado, US.

As in Geneva, one of the most frequently mentioned words at the Space Symposium was 'sustainability'. From military officers to diplomats, to senior business executives, speeches, responses to questions and hallway conversations returned to that word repeatedly. Although definitions differed from time to time, the common core of the message was that, as more participants begin pursuing the multiple advantages of space-based applications, there is more need to ensure that shared use is orderly and peaceful. No doubt a similar perspective emerged in the minds of policy-makers

around the world as the automobile passed from novelty to commonplace presence in the early 20th Century.

Central to the importance of 'sustainability' as a common theme in both Geneva and Colorado Springs is the understanding that there was a very broadly held belief that to ensure it would require some form of structured cooperation and some form of widely honoured agreement. Those of us who have laboured in the vineyard of space law for any length of time could sense pretty quickly, however, where the holes in that broadly held belief would be found. Indeed, discussion fell quickly into the now frequently heard debate between so-called hard and soft law solutions.

While advocates for 'hard law' point to the importance of having legally binding treaties capable of enforcing compliance, proponents of 'soft law' argue that mutually dependent communities in broad agreement on best practices might well expect as much improvement in the 'orderly and peaceful' exploitation of space as they would from the presence of treaties. However much wisdom as there may be on both sides of the hard law/soft law divide, it is nonetheless, too often seen as an either/or debate in which the quantum answer of 'both' is not possible. With a background that bridges the political and the technical, I often find myself wishing for a kind of Mohs scale of legal hardness to help find some common ground between those who believe anything short of a treaty is a mere exercise in rhetoric and those who find treaties so unacceptable as to be unworthy of discussion.

Friedrich Mohs, a 19th century German scientist, recognised – like several classical scholars before him – that naturally occurring minerals varied greatly in their hardness: no one would argue that talc was as hard as diamond. His scale ranking that hardness from one to ten, however, permitted assessment of a critical question relating to hardness: 'What is hard enough?'

The time appears to be ripe for those of us interested in expanding the rule of law in space activities to begin pursuing the same question. Returning to the mineral analogy, why use hard-to-find diamonds, if quartz is both more readily available and adequate

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Executive Director of the Secure World Foundation, Colorado msimpson@ swfound.org to the task? Fortunately, in a world where municipal law has a far larger opus than international law, it may provide some of the solution we seek.

The federal system in the United States frequently presents challenges very similar to those faced internationally by contemporary advocates for expanded and improved space law. Since many important subjects are under the reserved authority of the US states and not of the US Federal Government, even the best of ideas in those domains would need to be adopted in all 50 US states, two commonwealths, several territories and the District of Columbia to be 'hard law' throughout the country. This task is so daunting that even the commission founded in 1892 with the intent of facilitating it - now known as the Uniform Laws Commission has rarely accomplished it. Nonetheless the impact of that commission on at least fairly broad adoption of similar, if not usually uniform, laws may provide the seed of an idea that could be effective in contributing to more space law, more broadly adopted.

Looking at both the history and the structure of the Uniform Laws Commission, there is reason for optimism that an international analogue focused on space law might lead to measurable progress in providing another pillar under the legal foundation supporting the objective of orderly and peaceful behaviour in space. That optimism is based on a number of elements that would be important to any internationalisation of the concept.

Members of the commission are all appointed by their states or jurisdictions. Internationalising the process would see a situation where every country participating would have its perspective, legal traditions, and sovereignty equally represented.

No proposed legislation emerging from the Uniform Laws Commission has any force of law until adopted by a state legislature. Clearly, national legislative action would be required to give any such force to proposals emerging from an international process in space law. This would facilitate support from those who fear 'entanglement' in treaties.

The US Commission uses a three-step process that first studies the areas potentially open to uniform legislation and then passes on the ideas it has vetted to a separate committee charged with drafting a text. After a completed text is submitted to legislatures for review, a third panel monitors its progress through the legislative process and eventually conducts periodic reviews of its effectiveness

and enforcement in practice. This could be easily adapted to international use.

Interestingly, some of the greatest success of the uniform laws process has been in the area of business and commercial legislation. Since this is also an area where the legal subcommittee of the United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS) has highlighted a need for national space law, it may be a good place to start developing legislative texts that could be ripe for coordinated adoption. Given that the prospect of rapidly increasing, non-governmental space activities poses some of the newest questions and concerns in space law, it may be possible to gain some early successes with an international process that could subsequently bring credibility to any attempts to deal with even more challenging areas.

Lastly, the uniform laws process is not necessarily burdened by an up-front veto from the executive as is the case in treaty negotiations. Even consensus-based bodies, like UNCOPUOS, are likely to reflect the political perspective of executive and administrative authorities. Depending on national legislative procedures, the availability of well-vetted and well-drafted texts could give legislators the opportunity to adopt a recommended text as their own, champion it, and submit it for consideration and possible adoption in accordance with their national processes. Executive assent may become an issue later, of course.

There is no attempt here to make the case for substituting the coordination and sympathetic tuning of national space laws for either international treaties or non-binding statements of principles or best practices. There is an attempt to argue that there is middle ground between hard law and soft law approaches. Coordinating even limited elements of national legislation presents fertile opportunities for advancing the role and utility of legal solutions to the technically and political complex space environment. Even a few countries coordinating their national space law in particular areas could have beneficial effects, and the effects could be greatly magnified depending on which countries were involved. As a thought experiment, given the material responsibility of the US and Russia for decades of accumulated space junk, reflect on a hypothetical, coordinated legal approach to debris mitigation emerging from sympathetic legislation in just those two countries. It could set the stage for addressing over half of the major pieces of space debris orbiting the Earth.

## SATELLITE HACKING AND CYBER-SECURITY

Such a solution would lie between hard and soft law since it would have an element of enforceability in national courts but would not involve international enforcement mechanisms. Like soft law, it would depend on a shared sense of responsibility for protecting the commons. Unlike soft law, it would have enforceability in municipal law. It would be both binding and non-binding in a way that might make it adoptable. After all, new space law is emerging from national legislation every year, while it has been a long time since there has been a widely adopted space treaty.

Unlike treaties or soft law agreements that seem to need large numbers of adherents to give them effect and credibility, coordinated national legislation could often require only the support of small groups of states whose actions have considerable impact on the situation or concern being remedied. Similarly, conducting the preliminary studies, drafting and vetting the proposed texts or principles and publicising their availability requires commitment from civil society more than political will.

An effort to coordinate elements of national space legislation would, however, require an unbiased organisational sponsor, a large number of highly qualified lawyers willing to work long hours without compensation, and enough credibility for the product to be taken seriously by enough countries, or their legislators, for the ideas it contains to get a fair airing in the political process.

Perhaps the International Bar Association would be just the right organisation to get the process started?

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