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# Int'l Arbitration Will Be Key Contract Issue For Space Industry

By **Werner Eyskens, Ian Laird and Evelien Van Espen**
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Werner Eyskens

On Sept. 29, at the second World Arbitration Update conference, a panel discussion was held on new developments in space law and arbitration.[1] The key takeaway was that the space industry is currently booming and that it will likely face a rise in the number of disputes between commercial space actors.

**Increased Future Dispute Risk**

During the panel discussion, it was explained that the space industry is expected to reach $1 trillion in revenue by 2030. A main driver of this rapid increase in revenue is the drastic decrease in launch costs.

Ian Laird

Between 1970 and 2010, launch costs remained essentially the same — $16,000 per kilogram of heavy payload, but recently Space Exploration Technologies Corp., or SpaceX, brought the cost down to $2,500 with the Falcon 9. There are projections that launch costs may further drop dramatically from $1,500 to $100 by 2040.

The decrease in launch costs opened up the playing field to a variety of commercial actors, including startups, which operate in a vastly different manner than the traditional governmental actors.

Evelien Van Espen

The new entry of commercial actors in the space industry will inevitably result in more disputes with claims related to various commercial agreements such as satellite manufacturing, launch and operation agreements, insurance and space tourism claims, intellectual property licensing disputes, and mergers and acquisitions claims.

This rise in disputes will follow from (1) the new nature of the space actors, as well as (2) the growing number of actors taken as a whole.

**The Commercial Nature of the New Space Actors**

Unlike governmental actors, commercial organizations typically have quarterly reporting obligations, business plans to deliver and financial undertakings to third parties.

They will have a more short-term view on claims and liabilities in comparison with governmental organizations. Consequently, these commercial actors will be less inclined to avoid disputes.

Contrary to traditional governmental actors, they will seek procedures that allow them to resolve their disputes as fast as possible, and the prejudiced party will seek to translate any losses into immediately available financial compensation.

Also, there are currently more than 1,000 startups active in the space industry, which will probably lead to a significant consolidation wave. In view of the sometimes-experimental nature of their activities, the projections, business plans and representations could be off the mark, with a risk of disappointed purchasers and post M&A claims.

**The Limited Availability of Orbital Slots and Frequencies**

Apart from the nature of the new space actors, space is also getting more crowded as a whole. Claims are more likely to arise because there may not be enough resources available for every candidate participant, or the existing constraints may create incidents.

Operating a satellite in Earth's orbit requires: (1) a physical location for the satellite, which is called an orbital slot; and (2) designated frequencies of the electromagnetic spectrum — one for information transmitted from the Earth station to the satellite and another for transmissions from the satellite to the Earth station — that are free from harmful interference from other satellites.

Both orbital slots and frequencies are scarce resources. First, this is due to physical and technological limitations. Second, because the operation of a satellite impacts the frequencies available to operators of other satellites, including operators based in other countries, international treaties have been created to govern the allocation of orbital slots and frequencies

The International Telecommunication Union is a United Nations specialized agency for information and communication technologies established by such international treaties.

It is responsible for, among other things, regulating the allocation of orbital slots and frequencies. This creates an additional regulatory limitation on the availability of orbital slots and frequencies.

As frequencies and orbital slots are rather scarce, and as space is getting more crowded, radio interference and collision risk will increase. This will affect operations, increase cost and reduce projected revenue, leading to disputes.

**Why Contracts Should Include an International Commercial Arbitration Clause**

As the risk of future disputes increases, commercial actors should consider carefully what dispute resolution clauses they will include in future agreements. When deciding between various options, commercial actors in the space industry should give particular consideration to the inclusion of a dispute resolution clause that provides for international arbitration, for the following reasons.

Arbitration can be transnational and therefore more disconnected from a specific state. Space disputes can become political because they may concern dual-use goods or strategic assets. This can lead to

parties failing to behave in line with the agreement, but instead behaving more in line with state interests.

A significant number of the major players in the industry are state agencies such as NASA, which means that even if you have a commercial contract, you are essentially still dealing with a government. State courts may not be the best forum for dispute resolution in those situations, especially when judges are appointed by the government.

As opposed to proceedings in state courts, arbitration proceedings can be conducted in any chosen language, which can avoid substantial translation costs.

The parties to arbitration proceedings can typically each nominate the members of the arbitral tribunal. This allows them to have on a tribunal specialized persons or, in their view, trustworthy persons who are verifiably independent and unrelated to any of the parties.

Arbitration proceedings are typically confidential, which can be key in a high-tech industry where patents and technology may make all the difference.

Incidents in space happen far away with limited live access to the scene of the event. Arbitration allows for expert witnesses to play an active role in enlightening the tribunal on technical aspects while leaving the advocacy to the lawyers.

It also allows for controlled document production, which can be essential if the relevant data is in the possession of a single party. In order to tailor arbitration clauses to the space law industry, expertise can be drawn from the aviation sector or the maritime industry.

In the aviation sector, there is clear differentiation between certain state-to-state arrangements and commercial arrangements.

For example, traffic rights and technical standards have remained solidly in the noncommercial sphere. In contrast, dealings in the supply chain have become fully privatized, while dealings with customers and consumers are regulated by liability caps and presumptions.

This distinction has contributed greatly to the commercial development of the industry and the use of international arbitration to resolve disputes.

In the maritime industry, certain shipping — read "launching" — agreements have become very formatted and many of those are resolved by specialized counsel, experts and arbitrators, with speed of resolution and experienced counsel and arbitrators often being key.

Maritime law also deals with a number of state responsibilities for commercial activities and operations on the high seas, including recently for deep-sea mining, which may offer useful examples for the expected space- and moon-mining activities.

The expertise to carefully design the proper dispute resolution clause can certainly be built upon lessons learned in the aviation sector and maritime industry. That expertise can now be applied to the developing dispute resolution field of space law.

In sum, when entering into commercial space agreements, commercial space actors should review any

proposed dispute resolution clause closely to ensure professional, speedy and confidential resolution of any future dispute that may arise.

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[1] See https://worldarbitrationupdate.com/.