## IAF SYMPOSIUM ON COMMERCIAL SPACEFLIGHT SAFETY ISSUES (D6)

Enabling safe commercial spaceflight: vehicles and spaceports (3)

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## THIRD-PARTY LIABILITY & COMMERCIAL SPACEPORTS AROUND THE WORLD

## Abstract

In 2018, Virgin Galactic's chief executive, George Whitesides stated that Virgin Galactic's ultimate goal is to build spaceports around the globe to serve as "future hubs for a network of intercontinental transportation nodes". The risks associated with conducting spaceport activities exposes spaceflight companies, participating States, and the spaceport developers themselves to third-party liability issues. Despite these risks, the term "spaceport" is not explicitly stated in the five main international space treaties. Due to this fact, this paper analyzes the current policies that the United States, main European space-faring member States, and Indonesia have in place to protect commercial spaceports from third-party liability issues.

The first section of this paper focuses on US Federal policies, such as the US SPACE Act of 2015, where national legislation is deemed as one of the main grounds to promote spaceport activities. In addition, this section highlights the particular effect national and state legislation have on shielding Spaceport America, as well as the proposed spaceports in Colorado and Houston, from third-party liability.

Due to the increasing demands, commercial spaceport sites across the European Union are also being proposed. For instance, in line with their goal to build spaceports around the globe, Virgin Galactic has stated plans to conduct flights from Italy's proposed spaceport in Grottaglie. As a result the next section focuses on the legal mechanisms, such as the UK's Space Industry Bill, that the European Union has to protect their spaceports from third-party liability at the member state level and the EU level.

The next section of this paper follows the development of spaceports in the Asia Pacific region. Due to the economic growth in the Asia Pacific, several spaceports are in the development and planning phase. The Indonesian Space Policy has mandated its government to build a spaceport by 2045. In addition, recent discussions with the Chinese government suggest that the two countries will be collaborating to build a spaceport either in Biak or Morotai. This section analyzes the legal instruments that Indonesia has in place to protect spaceport developers, and any future collaborating States, from third-party liability.

Because different spaceports have different needs, the final section of this paper concludes with a comparative analysis between the policies of the three regions. From the findings of the analysis, the last section then presents a framework with recommendations for spaceport developers to globally protect themselves from third-party liability.