

SYMPOSIUM ON COMMERCIAL SPACEFLIGHT SAFETY ISSUES (D6)
Commercial Space Flight Safety and Emerging Issues (1)

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FRENCH RECOMMENDATIONS ON SUBORBITAL AIRCRAFT OPERATIONS

Abstract

Commercial suborbital spaceflights is an emerging industry, which evolves rapidly and is now close to reality. In the coming years, this new market will reshape the entire space-sector economy and will directly impact a wide range of fields from scientific research, industries developing and manufacturing suborbital aircraft, entities in charge of spaceports and air traffic management, regulation and certification bodies and education, as it will undoubtedly inspire the youth. However, some challenges must be addressed and overcome before leveraging opportunities offered by commercial spaceflights. Therefore, it is of utmost importance to anticipate now how to safely allow tens of flights per day from all over the world with non-professional passengers on board. In order to pave the way for detailing impacts of routine operation of commercial spaceflights, a working group was set up in 2015 to investigate technical, operational and regulatory needs of this new industry. This working group, co-chaired by DGAC, the French civil aviation authority, and COSPACE of GIFAS, the French government industry coordination committee on space, which aims at improving competitiveness of French space sector, gathered all the relevant stakeholders to define a national strategy and roadmap regarding suborbital aircrafts and spaceports operation. Regulatory framework including security, liability, airworthiness and environmental impact, is one of the key elements of this work, as it could not only foster this emerging market by encouraging manufacturers to invest in spaceplanes with confidence that they will meet future regulations but also help to shape potential future European position regarding commercial suborbital vehicles development and operations.

This paper will provide an overview of the French recommendations regarding suborbital aircraft operations including the definition of the most appropriate regulatory framework considering the specific nature of this type of vehicle and related spaceports.