

IAF COMMERCIAL SPACEFLIGHT SAFETY COMMITTEE (CSSC)

International Collaboration For Safe Space Operations

1. Introduction

The present brief has been prepared to provide an outlook of the major areas onto which the CSSC focused from beginning of 2022. The IAF Spring Meetings in Paris on 28-30 March 2022 was very productive and a great occasion to meet and network in person after the long pandemic restrictions. The great number of received abstracts and their extremely valuable contents anticipate a very successful IAC Congress in September 2022.



2. Latest Developments

SPACEPORTS: As announced in the Spring Meeting CSSC Committee Meeting, the European Spaceport Forum (ESF) took place at ESRANGE, Kiruna Sweden on 2-4 May 2022; main topics included space port status update from respective countries, ESA presentation of Future programmes, EU Commission presentation of Commission plans, and programmes related to micro launchers and their space ports, European Airspace regulation discussion.

REGULATORY: Italy is pursuing the regulations for suborbital flights in the country; while the Spaceport regulation has already been published, a working group is going on, led by the Italian Civil Aviation Authority (ENAC), aimed at generating the Operator Regulation; end of 2022 is targeted as tentative completion of the work. In particular, Italy is planning to include regulatory aspects for suborbital flights occupants' safety. Different entities participate to the working group, in particular ALTEC S.p.A.

In 2021, the FAA-AST (Space Transportation Office) licensed 54 Missions to space, what represented a very busy year.

In October 2023 FAA will establish an Aerospace Rulemaking Committee to start the Rulemaking preparation process for its first Regulation, which shall regulate Commercial Spaceflights in the United States.

SpaceLand announced a workshop with IAF participation to be held on 1-5 September 2022, in Mauritius where a USA-supported Spaceport and a Space-inspired high-tech green-energy-powered tropical "smart city" are going to be developed, including conventioned VIP working and living opportunities for IAF members. SpaceLand also intends to offer up to 10 parabolic flights per week on a modified Boeing 757 for 50 passengers and/or payloads per each flight. As an example, Space Debris capture trials and Lunar/Mars A.I. Robotics could be simulated and tested in actual low-gravity conditions. Disabled passengers would also be welcome, as it was done on 5 April 2002 firstly with SpaceLand ICT test subject Elma Schippa (100% physically disabled) then later with Stephen Hawking on a smaller Boeing 727.

Dawn Aerospace is making progress with its Mark II “Aurora” Spaceplane. It is currently fly-tested in New Zealand as a drone, powered by microjet engines, before being powered with rocket engines. The intention is to evolve from the present RPAS (Remotely Piloted Aircraft System) with a camera in cockpit to an autonomously controlled drone.

Space Renaissance International which ran its first congress recently, showing its Final Resolution. It is a think tank organization with the goal of opening space and its resources to the people of Earth, expand Civilization beyond Earth boundaries.



3. Breakthroughs

The Committee is closely monitoring the impact assessment of the current international situation.

4. Future Outlook

- Increase the networking activities and foster mutual exchange of information and dialog
- Monitor the current initiatives for commercial space access and their technological developments
- Increase awareness on safety issues and provide advice to the community
- Prepare a very successful IAC Congress in September 2022