

STSC 57th Session, Vienna, 03 - 14 February 2020, Germany

Item 5: United Nations Programme on Space Applications

Madam Chair,

Distinguished Delegates,

we highly appreciate the work carried out by the Programme on Space Applications and contribute to it with a number of different activities.

The Drop Tower Experiment Series – in short: DropTES – is a fellowship programme of the United Nations Office for Outer Space Affairs in which students can learn and study microgravity science by performing experiments in a drop tower. The Bremen Drop Tower in Germany is a ground-based laboratory with a drop tube of a height of 146 meters, which enables short microgravity experiments to be performed in various scientific fields, such as fluid physics, material science and biotechnology.

We are very pleased to announce that the sixth cycle of DropTES under the umbrellas of the UN Programme on Space Applications and in close cooperation with the Center of Applied Space Technology and Microgravity in Bremen and the German Aerospace Center (DLR) was again a success. An international team from the Polytechnic University of Milan, the University of Seville and the University of Colorado Boulder was awarded the fellowship through competitive selection.

The objective of the very motivated research team's experiment was the study of the movement of liquids in space, also known as low-gravity sloshing, which is an almost unexplored phenomenon that may have important implications in space.

This phenomenon has been a concern for spacecraft designers and operators, because it may become a source of disturbances and, in extreme cases, a safety risk. In this regard, the experiments result can be used to

validate recently developed models, and thus contribute to finding appropriate design solutions to address such concerns.

Against this background, it is our great pleasure to announce that the DropTES program will be continued. The Announcement of Opportunity for the seventh cycle of DropTES is available and its deadline for application submissions ends by 31 January 2020.

Also under the umbrella of the Programme on Space Applications, DLR cooperated with UNOOSA and hosted in October 2019 14 teachers from nine African countries for an open exchange of information and experiences related to space science and technology education. During the workshop, participants were introduced to DLR's School_Labs which offer experimentation opportunities for pupils to interactively discover topics related to aerospace, aviation and energy. This capacity-building initiative aimed to promote space education and was supported by UNOOSA and the Regional Centres for Space Science and Technology Education affiliated to the United Nations.

Understanding and mitigating the effects of climate change will be a major challenge, and space technology as well as space-derived data will play a crucial role in support of these efforts. To advance these objectives, DLR and UNOOSA are organizing the third edition of the Conference on Climate Change in Cologne, Germany, to take place from the 28th to 30th of April this year.

In concluding, we would like to emphasize that we highly appreciate the work carried out by the Programme on Space Applications and look forward to contribute to it in the future.

Thank you for your kind attention.