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46th SYMPOSIUM ON SAFETY AND QUALITY IN SPACE ACTIVITIES (D5)

Knowledge Management and Collaboration in Space Activities (2)

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SPACE SAFETY IS NOT AN OPTION

Abstract

Since the beginning of the space era back in the 60's different space accidents had happened, causing the lost of human lives, money, delaying the progress of the space industry, and revealing the importance of space safety. When talking about space safety, we are not talking only about human spaceflight, but as well about the safety of ground personnel during launch preparation, public safety related to launch and re-entry operations, space traffic management, and prevention of pollution on-orbit and on ground. Also, debris generated during uncontrolled or off-nominal re-entries could cause casualties in the air which are generally not taken into account by risk assessment models. There is on average one re-entry of a major space system per week. Space safety is a key element not only to expand space programs but to make them more economically viable.

About 200 people from 25 countries, coming from space agencies, governmental institutions and academia, are currently members of the International Association for the Advancement of Space Safety (IAASS) and are working on increasing the international cooperation and scientific advancement in the field of space systems safety. The tasks they are undertaking are: 1. Shape an international culture of space safety (technical, organizational and socio-political); 2. Pursue the preservation of the on-orbit environment to allow unlimited access to space by future generations; 3. Advance the science and application of space safety; 4. Promote and improve the development of space safety professionals and standards; 5. Advocate the establishment of safety laws, rules, and self-regulatory bodies at national, international levels and industrial level for the civil/commercial use of space; 6. Improve understanding and awareness of the space safety discipline; and, 7. Improve the communication, dissemination of knowledge and cooperation between interested groups and individuals.

Every 18 months, the IAASS organizes a conference in cooperation with the International Space Safety Foundation (ISSF), to discuss different topics of space safety. This paper will present the summary of ideas and work discussed during this international conference. This shall serve as an input to the international eorts to improve space safety.