Operating in the space debris environment

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Résumé

by Tim Flohrer ESA/ESOC, Space debris Office Space provides an indispensable resource for modern societies and Space debris is a human-made problem and puts the further utilisation and access to space at risk. Today, space debris needs to be considered in the design and operation of satellites. It is consensus that active removal of massive large debris objects in low-Earth orbits will be required to stabilise the growth of the space debris environment. Observing space debris and cataloguing large objects through space situational awareness (SSA) is an enormous effort, but essential in order to provide sufficient data for the validation of space debris environment models. Further, collected and actionable data from SSA allows for collision avoidance, the management of re-entry risks, and resolving contingency situations. The presentation addresses the very different aspects of living with space debris and presents current challenges, and recent trends and achievements, and show some examples from the operations at ESA.

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