

2023 Clean Space Industry Days

Tuesday, 17 October 2023

End-of-Life Management & Zero Debris: Plenary: Zero Debris Policy evolution (09:30 - 11:00)

| time | [id] title | presenter |
|-------|---|---------------------|
| 09:30 | [138] Introducing the Zero Debris approach | SOARES, Tiago |
| 10:00 | [139] Introducing the Zero Debris charter | VERSPIEREN, Quentin |
| 10:15 | [140] ESA Space Debris Mitigation Standard 2023 | LETIZIA, Francesca |
| 10:45 | [141] Evolution of the LOS (Loi relatives aux Operations Spatiales/ French law on space operations) | OMALY, Pierre |

End-of-Life Management & Zero Debris: Lessons Learnt End-of-Life (14:00 - 15:30)

| time | [id] title | presenter |
|-------|--|--------------------------|
| 14:00 | [119] Aeolus re-entry paving the way to mitigate on Ground casualty risk | LAGADEC, Kristen |
| 14:18 | [98] Aeolus assisted reentry: a successful story | Mr PARRINELLO, Tommaso |
| 14:36 | [37] CHEOPS: from reentry in 25 years to 5 months | MODREGO CONTRERAS, David |
| 14:54 | [18] Rocket body reentry trends | WRIGHT, Ewan |
| 15:12 | [53] Ariane 6 - Space debris limitation | DIAS, Nathalie |

End-of-Life Management & Zero Debris: Space Surveillance and Tracking (16:00 - 17:30)

| time | [id] title | presenter |
|-------|---|--|
| 16:00 | [30] Objects characterisation with on-ground SST measurements in support of space debris removal operations | GALLEGO TORREGO, Angel DE ANDRÉS TIRADO, Adrián PAULETE PERIAÑEZ, Carlos TORRAS RIBELL, Marc CARRO, Javier |
| 16:20 | [66] CNN4NEOOD - CONVOLUTIONAL NEURAL NETWORK FOR NEAR EARTH OBJECT OBSERVATION AND DETECTION | Ms UNNI, Aiswarya VENANZI, mauro |
| 16:40 | [149] Dark & Quiet Skies | WILLIAMS, Andrew |

Wednesday, 18 October 2023

End-of-Life Management & Zero Debris: How to reach Zero Debris WS: Successful Disposal and Orbital clearance (09:30 - 11:00)

End-of-Life Management & Zero Debris: How to reach Zero Debris WS: Active Debris Removal and Space Debris release (11:30 - 13:00)

End-of-Life Management & Zero Debris: How to reach Zero Debris WS: Collision risk management and Space Situational Awareness (15:00 - 16:30)

End-of-Life Management & Zero Debris: How to reach Zero Debris WS: Re-entry safety (17:00 - 18:30)

Thursday, 19 October 2023

End-of-Life Management & Zero Debris: Deorbit & Passivation technologies (09:30 - 11:00)

| time | [id] title | presenter |
|-------|--|---|
| 09:30 | [25] Advancements in Inflatable Drag Devices for Satellite De-Orbiting by SPACEO | LOUREIRO, Joao Pedro |
| 09:48 | [54] Deorbiting Solid Rocket Motor equipped with Thrust Vector Control – a base for propulsion system for controlled re-entry | Ms MAJEWSKA, Ewa |
| 10:06 | [79] The Deorbiting Kit: Optimised solution for ESA's Zero Debris Policy Implementation | GARCES DE MARCILLA, Diego Ms SAURA CARRETERO, Gemma Mr ANTONETTI, Stefano |
| 10:24 | [99] Equipment for Satellite End-of life Management and Deorbit | WURDAK, Malte |
| 10:42 | [124] Introducing the European Reconfigurable Battery Unplugging System: a Step Towards Sustainable End-of-Life Management for Small-Satellites Constellations | FAZZOLETTO, Emilio |

End-of-Life Management & Zero Debris: EOL for SmallSats (11:30 - 13:00)

| time | [id] title | presenter |
|-------|--|-------------------|
| 11:30 | [73] ADEO-N2 - Dragsail Deorbit Mission - The European Commercial Passive De-Orbit Subsystem Enabling Space Debris Mitigation for CubeSats, SmallSats and Constellations | Mr STELZL, Daniel |
| 11:45 | [92] Assessing impacts of Zero Debris approach on Cubesats: A System Analysis | SURIANI, Lucia |
| 12:00 | [132] SmallSat End-of-Life Workshop | |

End-of-Life Management & Zero Debris: Methods and tools for Zero Debris and re-entry (11:30 - 13:00)

| time | [id] title | presenter |
|-------|---|------------------------------|
| 11:30 | [12] Utilization of a risk index to incentivize satellite operators to follow best practices for post mission disposal: the mission index module of the Space Sustainability Rating | Mr SAADA, Adrien |
| 11:48 | [5] A cloud-based multi-fidelity solution for space debris assessment | Dr BRIDEL-BERTOMEU, Thibault |
| 12:06 | [89] Methodologies and Tools to Ensure the Safe and Sustainable Re-entry of Spacecrafts | Ms BURLOU, Andreea |
| 12:24 | [133] A Direct Approach for Assessing Demise Capability and Modelling Correlation for DRAMA: A Case Study on Composite Materials | LOOTEN, Alexandre |
| 12:42 | [123] Extension of ESA's Survival And Risk Analysis tool with hemisphere and lattice shapes | SPEL, Martin |

End-of-Life Management & Zero Debris: Design for Demise (14:00 - 15:30)

| time | [id] title | presenter |
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|-------|--|--|
| 14:00 | [29] SpaceCraft Object Risk Evaluation Database (SCORED) | BECK, James |
| 14:20 | [51] The Topology Optimization approach, a promising technology to adopt as a Design for Demise solution | Dr GALERA, Stephane |
| 14:40 | [106] A Multiscale Heating Correction Code for Space Debris Demise Simulations | MERRIFIELD, James DONALDSON, Nathan |
| 15:00 | [86] On Demisable Fiber Reinforced Plastic Composites | SCHLEUTKER, Thorn |
| 15:20 | [148] Challenges in the development for a demisable Xenon Tank | HEHER, Philipp |

End-of-Life Management & Zero Debris: Design for Removal (14:00 - 15:30)

| time | [id] title | presenter |
|-------|---|--|
| 14:00 | [134] Preparing for a Cleaner Space: Introduction to ESA's Design for Removal | PADILLA, Estefania |
| 14:10 | [28] Markers Supporting Navigation Development and Qualification | SZEGEDI, Laszlo |
| 14:30 | [75] MICE (Mechanical Interface for Capture at End-of-Life): Qualification results and future use | CAMAÑES, Carmen |
| 14:50 | [101] A PASSIVE DEVICE FOR POSTMORTEM DETUMBLING / ANTITUMBLING OF LEO SATELLITES, TO FACILITATE ACTIVE REMOVAL | SENES, Maxime Mr LAGADEC, Kristen Mr PAYOT, Frédéric |
| 15:10 | [43] The puzzling dynamic evolution of defunct satellites: a challenge for Active Debris Removal missions | BENOIT, Alain |

End-of-Life Management & Zero Debris: Design for Demise (16:00 - 17:30)

| time | [id] title | presenter |
|-------|---|-------------------|
| 16:00 | [103] Generic separation technologies to improve demise behaviour | WEIHRETER, Martin |
| 16:18 | [32] Demise Testing and Modelling of Glass Materials and Demisable Bipod Concepts | BECK, James |
| 16:36 | [87] Influence of the Selected Alloy and the Dynamic Loads on the Demisability of Aluminium | SCHLEUTKER, Thorn |
| 16:54 | [36] DRACO mission phases A-B1 outcomes and way forward | Mr CAMPO, Saul |
| 17:12 | [104] Demisability of Platform Optics and Electronics | LOCKETT, Bradley |

End-of-Life Management & Zero Debris: Design for Removal (16:00 - 16:20)

| time | [id] title | presenter |
|-------|---|------------------------------------|
| 16:00 | [55] CAT: A Satellite Capture Payload Bay for ADR Servicing | GANDIA, Fernando PRIETO, Manuel |

End-of-Life Management & Zero Debris: Workshop: Standardized removal interface (16:20 - 17:30)

| time | [id] title | presenter |
|-------|---|-----------|
| 16:20 | [135] Standardized Removal Interface Workshop | |