

The background of the slide is a photograph of the EUMETSAT building, a modern structure with a prominent glass-enclosed staircase and a curved facade. In the foreground, a row of tall flagpoles holds various national flags. The image is partially overlaid by a dark blue semi-circular graphic on the left and a white semi-circular graphic on the right.

International Space Weather Data Exchange Through EUMETSAT

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- What is EUMETSAT?
- Potential for ADR of Metop first generation.
- Close rendez-vous approach with Meteosat satellite.
- Consideration of the ESA-initiated Zero Debris Charter



What is EUMETSAT ?

EUMETSAT is the European operational satellite agency for monitoring weather, climate and the environment from space.



An intergovernmental Organisation with 30 member states



Opportunity for Metop Active Removal

- Eliminate Metop collision and casualty risk / liability through controlled re-entry to uninhabited region.
- Extend Lifetimes of Metop-B + C allowing continued operation until failure in operational orbit
 - > 8 years additional lifetime, from complementary LTANs possible (Metop-B EOL ~2036, Metop-C EOL ~ 2042)
 - Mitigate continuity risks with Metop-Second-Generation
- Maturing Active Debris Removal (ADR) Capabilities.
 - Demonstration missions under separate ESA and UKSA contracts.
- Exploratory Industry-EUMETSAT interactions since May 2022.
- ESA Concurrent Design Facility Study in February 2024.
- Decision process on whether to proceed with formal industrial study phase is on-going.





Meteosat Rendez-vous and Inspection

www.eumetsat.int

- EUMETSAT cooperating with CNES and Infinite Orbits in a technology demonstration mission to approach in orbit and inspect the Meteosat-8 geostationary satellite (MSG-1), placed into a graveyard orbit in 2022.
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- Close coordination between Infinite Orbits, CNES and EUMETSAT is required to ensure the safe implementation and application of this novel technology.
- This mission leverages advanced imaging and patented technologies to assess the condition and functionality of the target spacecraft, potentially enabling even more complex on-orbit services in the future.



Consideration of the ESA-led “Zero Debris Charter”

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- EUMETSAT is committed to ensuring the sustainability of the space environment from which we conduct our missions.
- ESA has initiated a “Zero Debris Charter” together with representatives from European government agencies and industries, primarily designed to limit the impact of large satellite constellation operations on the space environment.
- However, implementation of the specific targets would require a transition period for EUMETSAT which can be implemented on the next generation satellites but may potentially impact the ability to extract optimal value out of current missions.
- EUMETSAT will continue to monitor the evolution of the Charter and related debris mitigation requirements and ensure our missions are operated in a sustainable manner, while ensuring the return of value to Member States.