

## EU space envoy calls for satellites to leave orbit soon after mission ends

by Debra Werner — October 4, 2019



Carine Claeys (right) discusses the new 3SOS space sustainability initiative Sept. 13 in Paris. Credit: SpaceNews/Jeff Foust

Satellites in low Earth orbit should reenter the atmosphere soon after they complete their missions instead of waiting many years, said Carine Claeys, who leads the Space Task Force for the European External Action Service, which acts as the European Union's Ministry for Foreign Affairs.

“That limit of 25 years has to be updated,” Claeys, who is also the European External Action Service Special Envoy for Space, said Sept. 13 at the World Satellite Business Week conference in Paris. “I think the deorbiting capability in low Earth orbit should be as soon as or in a very responsible time period after that satellite is no longer operational.”

Under existing rules established by the Inter-Agency Space Debris Coordination Committee guidelines, satellite operators are expected to deorbit their spacecraft within 25 years of the end of their missions. Increasingly, space industry and government officials suggest those guidelines, adopted in 2002, no longer make sense in light of plans for constellations comprised of hundreds or thousands of satellites. Much of the discussion has centered on whether satellites should move out of orbit within five years of the end of their missions.

“But even that is quite a lot,” Claey's said. “The deorbiting capability for low Earth orbit should be as soon or in a very reasonable time period after that satellite has stopped being operational, not waiting for years.” A timeline measured in “months” might be more appropriate, she added.

The topic was discussed at length by the United Nation's Working Group on the LongTerm Sustainability of Outer Space Activities, which formally approved 21 guidelines in June. The working group adopted language calling on national and international organizations to “encourage spacecraft manufacturers and operators to adhere to national and international space debris mitigation standards.”

Rather than governments imposing requirements on spacecraft operators, however, Claey's called for a “bottom up” approach to establishing new norms of “responsible behavior in outer space.” She suggested, for example, that “every satellite being launched now would have deorbiting capability for the end of its operational life.”

Approximately 4,000 satellites are in Earth orbit. Of those, about 1,800 are currently functioning. “It is nothing compared with what is expected with the announced megaconstellations,” she said.

Meanwhile, “new space actors and new space-faring nations” should beware of the Kessler effect in crowded orbits, Claey's said. Donald Kessler, a retired NASA senior scientist, predicted in 1978 that orbital debris could become dense enough to cause a cascade of collisions that could ruin key orbits for generations.

Preventing that type of cascade is important for the global economy, Claey's said, which depends heavily on satellites. With the internet-of-things and artificial intelligence, that reliance will continue to grow, she added.

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