Video: OPS-SAT, the flying laboratory

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On 17 December, ESA will launch a first-of-its-kind space laboratory, OPS-SAT. The small, low-cost test satellite has been specifically designed for operational experiments in space, and includes the most powerful flight computer on board any current ESA spacecraft.

Consumer electronics have gone through a revolution over the last 30 years with computers becoming ever faster, smaller and better. But when it comes to million- or even billion-euro satellites, their onboard hardware and software have not seen this revolution because of the risks

of testing new technology in flight.

As spacecraft managers dare to fly only tried-and-tested hard and software in the harsh conditions of space, innovation on the operational side of satellites is a very slow-moving process. This is where OPS-SAT steps in, bringing down the barriers to spacecraft operations it provides a chance to safely test out new mission control techniques.

Anyone can apply to become an 'experimenter' and test their innovative software and new mission operations techniques in space. Proving technology for future missions and paving the way for satellites to further evolve with minimum risk, OPS-SAT will be launched with ESA's Cheops satellite from Europe's Spaceport in Kourou, French Guiana.

Provided by European Space Agency

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