

International Space Station (ISS) Environmental Control and Life Support (ECLS) System Overview of Events 2023

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ABSTRACT

November 20th, 2023 marks the 25th anniversary of the beginning of construction of the International Space Station (ISS). The ECLS system is constantly changing to meet the needs of current missions and future exploration. The ISS has become the laboratory that was always envisioned, allowing for an ever-growing class of exploration level technologies that will propel the stage forward as humanity advances beyond Low Earth Orbit (LEO). This paper will review the past year, and look towards the future for each U.S. ECLS subsystem. The impacts, challenges, and successes related to the intermingling of incumbent and cutting edge technologies are summarily discussed in this paper.