Orion Suit Loop Variable Pressure Regulator Development

Michael Mosher¹ Andrew Vassallo²
Cobham Tecnology Inc, Orchard Park, NY

John F. Lewis³
NASA Johnson Space Center, Houston, Texas, 77058

Melissa Campbell⁴
UTAS, Houston, Texas, 77058

The Orion Multi Purpose Crew Vehicle (MPCV) integrates the cabin and pressure suits with the core life support systems to provide life support during contingency depressurized cabin operations. To provide the multiple suit pressures between nominal pressurized cabin suited operations, suit leak checks, depressurized cabin suited operations, and elevated suit pressure for denitrification, a variable pressure regulator is needed. This paper documents the development and integrated testing of the suit loop regulator for Orion.

¹ Cobham Engineering Manager, Space
² Cobham Senior Design Engineer
³ Orion ECLS System Manager, EC3/Crew and Thermal Systems Division
⁴ Advanced ARS ESCG Project Manager, EC3/Crew and Thermals Systems Division