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IAF SPACE PROPULSION SYMPOSIUM (C4)
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DEVELOPMENT OF H3 RCS (REACTION CONTROL SYSTEM)

Abstract

The H3 Launch Vehicle was developed as a successor to the H2A.

The Reaction Control System (RCS) of the H3, which continued to demand high reliability following the H2A, adopted the traditional hydrazine monopropellant propulsion system with 50N thrusters. In order to develop globally competitive rocket, it was also required to achieve cost reduction and performance enhancement, leading to a reduction in the amount of propellant onboard.

This paper first describes the design and operation of the RCS to achieve these objectives. Subsequently, it presents the required specifications and design for thrusters and tanks derived from this, along with the development results.