

HUMAN SPACEFLIGHT SYMPOSIUM (B3)
Commercial Human Spaceflight Programs (2)

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THE CYGNUS SPACECRAFT: COST EFFECTIVE CARGO DELIVERY TO THE INTERNATIONAL
SPACE STATION AND BEYOND

Abstract

The Cygnus Spacecraft is an element of a fully operational cargo delivery system to the International Space Station. Cygnus has completed three missions to date, with regular cargo deliveries scheduled for many years in the future. Current system capabilities and missions will be reviewed.

With Space Agency budgets flat or declining, future space exploration needs to utilize an evolutionary strategy that emphasizes modification of existing systems. The use of commercial practices is critical for affordability. The capabilities, cost, and schedule of commercial systems are more predictable. Future Evolution of Cygnus will support NASA science missions, as well as potentially becoming an integral part of Cis-Lunar Space Exploration. A roadmap of alternative Cygnus configurations is presented to support future space priorities.