

# CWSF 2012 - Charlottetown, Prince Edward Island



## Interplanetary Shipping 3

**Challenge:** Innovation

**Category:** Intermediate

**Region:**

**City:** ,

**School:**

**Abstract:** This project incorporated the design and creation of an independent multiphase manned mission to Mars utilizing current technologies. A unique ship design was created using cryo-fuel as both propellant and radiation shielding to move human cargo while solar sails were utilized for resupply missions. Through mathematical experimentation and manipulation a working modification and simplification of the Hohmann orbital transfer was discovered for this case.

Awards	Value
The Actuarial Foundation of Canada Award - Intermediate	\$750
Excellence Award - Intermediate - Bronze Medal Sponsor: Nuclear Waste Management Organization	\$300
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
<b>Total</b>	<b>\$2 050</b>