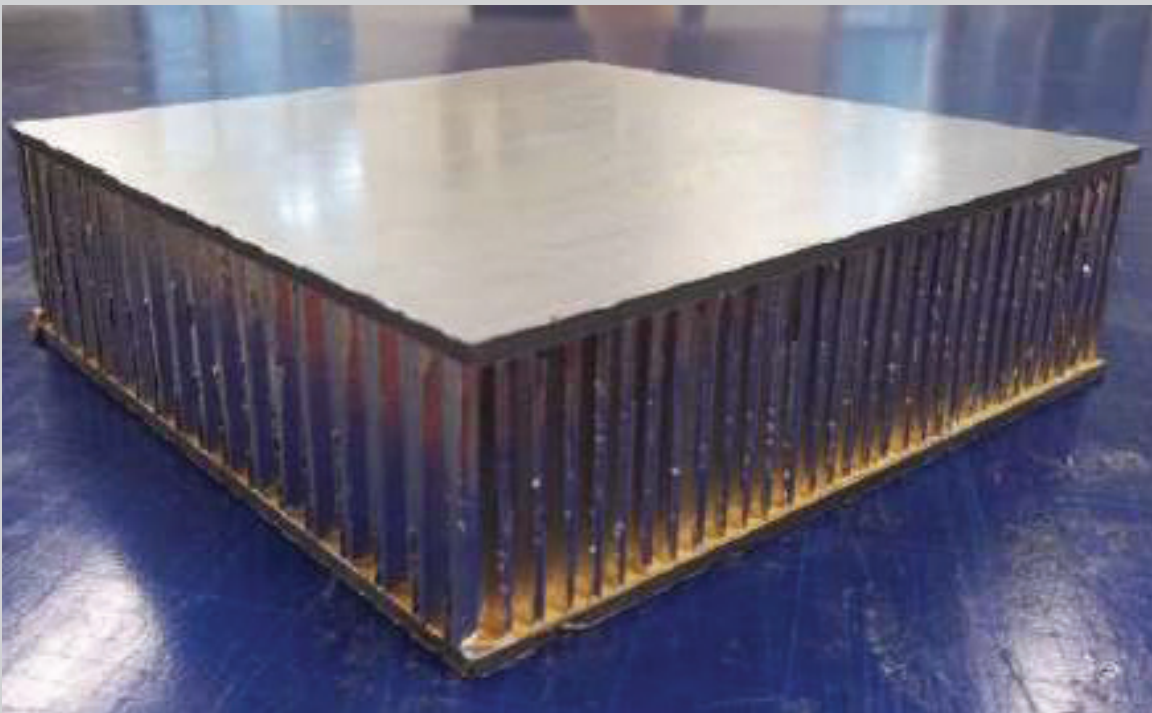


MAGELLAN RADIATION SHIELDING HIGH RADIATION COMPOSITE PANEL

Working with the University of Manitoba, Magellan developed a mass-efficient means of protecting space assets against the hazards of extreme radiation or long duration space missions.



RADIATION ENVIRONMENT • MASS EFFICIENT • PASSIVE PROTECTION



OVERVIEW

The High Radiation Composite (HRC) panel is designed to limit the Total Ionizing Dose to less than 50 krad (Si) following a 15 years of exposure to the Molniya orbit. Composed of a standard Al honeycomb core bonded on either side by two specifically designed composite facesheets, the technology replaces a standard Al structural panel, integrating light weight passive protection rather, than relying on power hungry active or traditional heavy passive protection solutions.

KEY FEATURES AND CHARACTERISTICS

Weight Saving (Proton):	~22% over Al
Weight Saving (Electron):	~22% over Al
Facesheet Areal density:	~17% over Al
Facesheet thickness:	0.435 g/cm ²
Technology Readiness:	2.863 mm

TRL 6

** Data for prototype. Design optimization for flight possible.*

Acknowledgement

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ABOUT MAGELLAN AEROSPACE

Magellan Aerospace is a global aerospace company that provides complex assemblies and systems solutions to aircraft and engine manufacturers, and defence and space agencies worldwide. Magellan designs and manufactures aeroengine and aerostructure assemblies and components for aerospace markets, advanced proprietary products for military and space markets, and provides engine and component repair and overhaul services worldwide. Magellan is a public company whose shares trade on the Toronto Stock Exchange (TSX: MAL), with operating units throughout North America, Europe, and India.

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