

ORBION

SPACE TECHNOLOGY

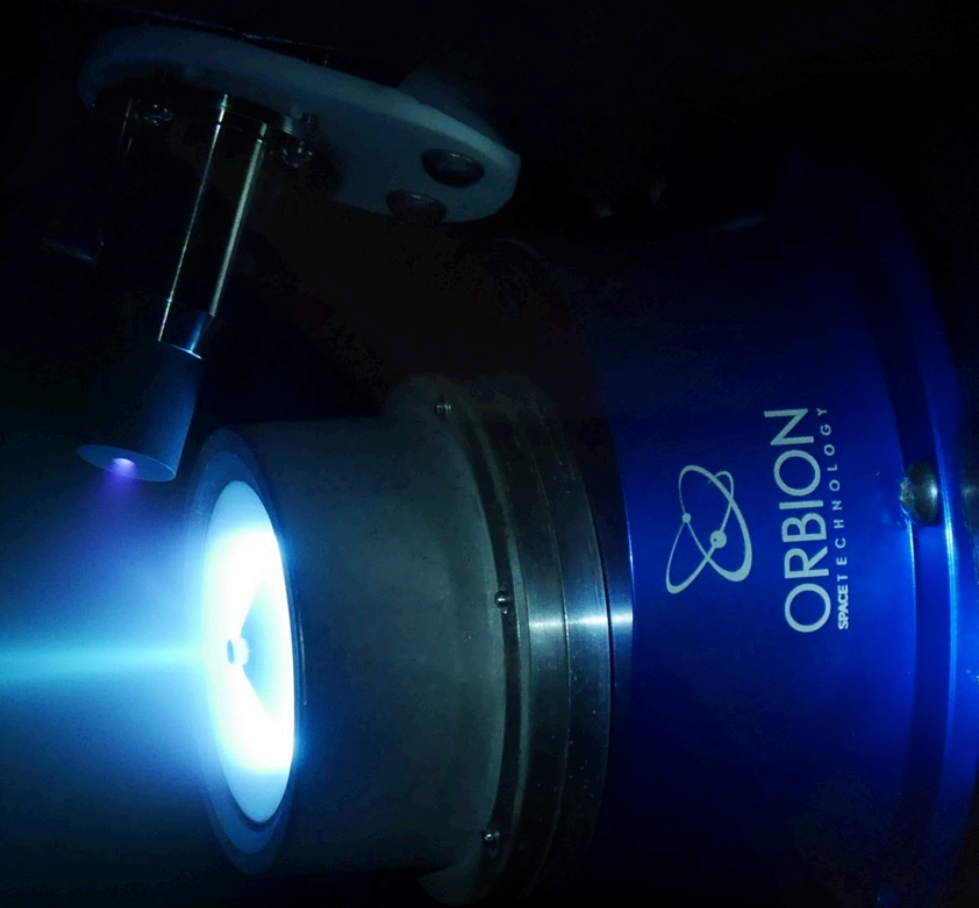
Lyon (Brad) King, CEO
brad.king@orbionspace.com
(906) 370-2376

“Global Space Propulsion System
Market Forecast to Exceed \$10B by
2023”

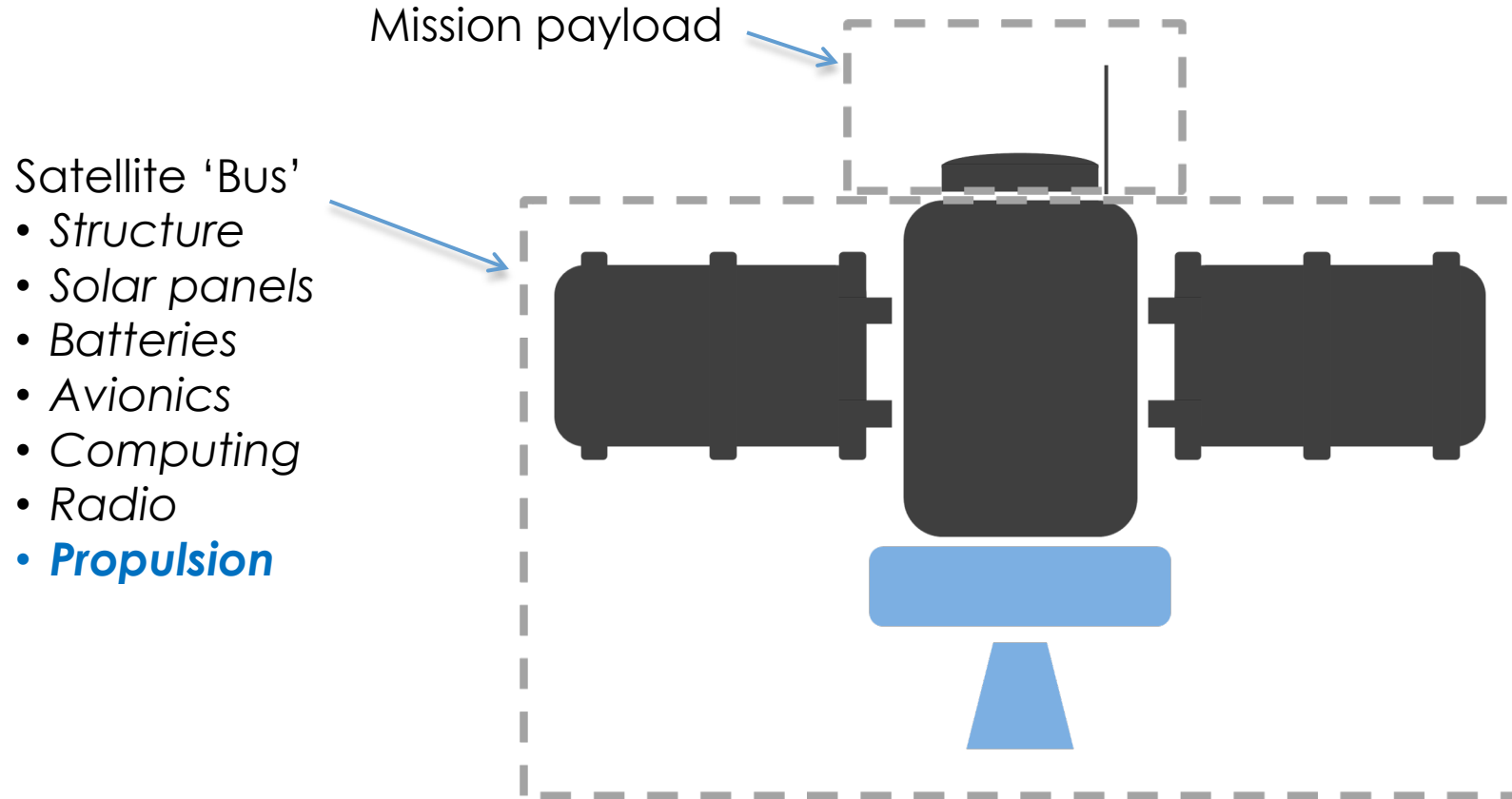
http://www.spacedaily.com/reports/Global_Space_Propulsion_System_Market_forecast_to_exceed_10_billion_by_2023_999.htm

February 27, 2019

Propelling the Small Satellite Revolution



Anatomy of a Satellite



Reliance on Terrestrial Components is a Double-edged Sword

Review

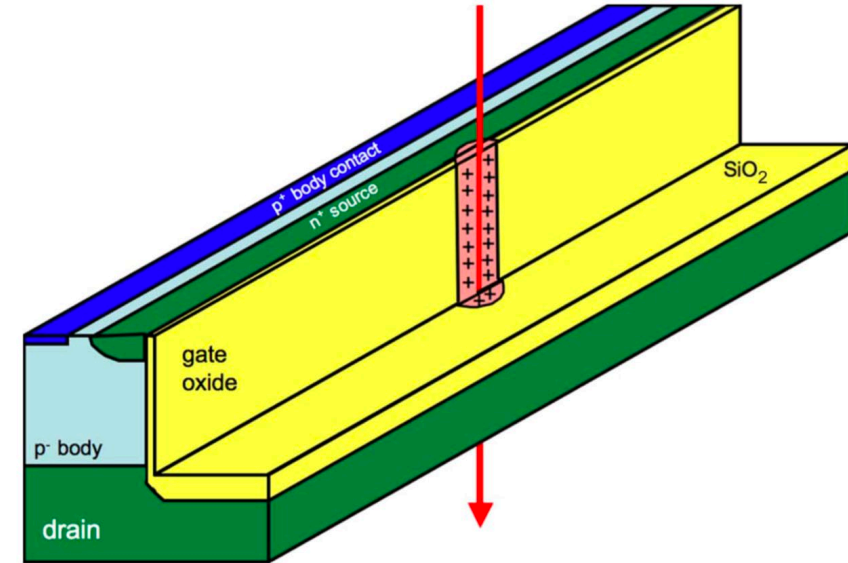
A Brief Review of Heavy-Ion Radiation Degradation and Failure of Silicon UMOS Power Transistors

Kenneth F. Galloway

Vanderbilt University, Department of Electrical Engineering and Computer Science and
Institute for Space and Defense Electronics, Nashville, TN 37235-1824, USA;
E-Mail: Ken.Galloway@Vanderbilt.edu; Tel.: +1-615-343-0312

External Editor: Mostafa Bassiouni

Figure 5. Schematic cross section illustrating an ion strike through the gate oxide on the sidewall of the trench in a UMOS power device. After ref. [7].



Space is Different

My 2018 F-150 King Ranch



- 11 Safety Recalls
- 45 Technical Service Bulletins
- Has been re-fueled 135 times
- 6 oil changes
- New brake pads, tires, radiator