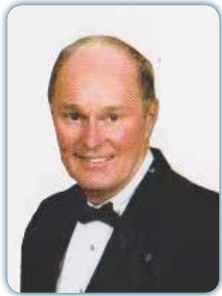


5th International Conference and Exhibition on

MECHANICAL & AEROSPACE ENGINEERING

October 02-04, 2017 Las Vegas, USA



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Applied Technology Institute, USA

Solving a half-dozen Sherlock Holmes-style mysteries in space

I love everything about Orbital Mechanics. Maybe it's because almost every powered-flight maneuver that takes place up there along the space frontier turns out to be counterintuitive. Suppose you and your spaceship are tracing out a simple circular orbit 100 miles above the earth. Now mash on the accelerator and you will slow down. Put on the brakes and you will speed up. Toss a banana peel out the window and 45 minutes later it will come back through that same window and slap you in the face! If your car behaved in a similar manner you would think it was really weird! Early in this presentation, you will be introduced to a remarkably intelligent earthling who figured out another baffling mystery: Why doesn't our big, lumbering moon fall from the sky? We will tackle a more recent mystery, too. Why was a \$240-million communication satellite doomed shortly after lift-off? Two of my young students at the Jet Propulsion Laboratory studied one of my color charts for a moment, and then figured out what caused its untimely destruction. We will also discuss another elusive mystery: How to eliminate space debris using only ground-based equipment. My presentation will reach its climax with one final mystery: How might a novel space-age approach to the Indian Rope Trick, someday, reduce the cost of launching satellites into orbit by an order of magnitude? Or more? I love everything about Orbital Mechanics. I love good mysteries. I hope you do, too!

Biography

Tom Logsdon (MS Mathematics) has written and sold 1.8 million words, including 34 scientific and technical books. He has taught 300 short courses on Orbital Mechanics and various other topics. He is, in addition, an expert witness, an Engineering Consultant, a professional keynote Lecturer, and a Writer for popular magazines. He also writes for Encyclopedia Britannica.

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