Dr. James A. Martin

(714) 847-5744 home

Education:	Sc. D.	Flight Sciences	George Washington Univ.	1982
	Engineer	Astro. & Aero.	M. I. T.	1969
	M. S.	Astro. & Aero.	M. I. T.	1967
	B. S.	Aerospace Engin.	West Virginia Univ.	1966

Skills:

Leadership
System integrated design and optimization
Trade studies
Trajectory optimization (POST, OTIS, SORT)
Vehicle performance
Vehicle sizing
Propulsion
Weights (PEST, CONSIZ)
Satellite Tool Kit, Orbital mechanics (STK)
Airplane design
Cost estimation
Aerodynamics, computational and experimental
Geometry and drawing
Technical writing, editing, and speaking
Teaching
Design Sheet (START)
Requirements (DOORS)

Experience:

2008-2008, Systems Engineering, IT Services (For ULA)
1998-2007, Senior Systems Engineer, Boeing
1982-2013, Associate Editor, *Journal of Spacecraft and Rockets*
1991-1997, Assoc. Prof. and Research Engineer, Univ. of Alabama
1966-1990, Aerospace Engineer, NASA Langley Research Center

Management/Leadership:

Leader of Orbit-on-Demand study, 15 engineers, 2 years
Leader of Shuttle Crew Escape Study Systems Engineering
Manager of RBCC test on Future-X Pathfinder design team
Managed funded University research with graduate students

Projects:

GPS III
Space Launch Initiative; Architecture Trades Focal
Responsive launch vehicle
Complimentary Exo-Atmospheric Kill Vehicle; Booster Lead
Tether Transportation Studies

Space Shuttle Crew Escape System
Earth-to-GEO Transportation for Solar Power Satellites
RFS/Delta; other partly reusable vehicles
Future-X Pathfinder Multi-purpose Reconfigurable Technology Testbed
Orbit-on-Demand Launch Vehicle Study at NASA
Highly Reusable Space Transportation: air collection concept
MHD propulsion for launch vehicles
Parallel-burn tripropellant SSTO
Two-stage with crossfeed
Rocket-based combined-cycle SSTO
Cost-optimized tripropellant SSTO

Capabilities: Management/leadership
Trajectory optimization
Design, weight estimation, sizing , cost estimation
Aerodynamics, wind tunnel testing, CFD
Short courses on "Advanced Launch Vehicles" and "Rocket Propulsion"
University courses on design, propulsion, performance, and fluid mech.

Publications: 38 formal reports or journal articles, 40 conference papers, 104 total
5 patents
3 articles in *Aerospace America*