SPST Published Material

- Concepts for Life Cycle Cost Control Required to Achieve Space Transportation Affordability and Sustainability – AIAA 2009-5345
- The Need for Technology Maturity of Any Advanced Capability to Achieve Better Life Cycle Cost (LCC) – AIAA 2009-5347
- Influence Diagram Use With Respect to Technology Planning and Investment – AIAA-2009-5435
- The Functional Breakdown Structure (FBS) and Its Relationship to Life Cycle Cost – AIAA 2009-5344
- Shuttle Shortfalls and Lessons Learned for the Sustainment of Human Space Exploration – AIAA 2009-5346
- Space Transportation Systems Life Cycle Cost Assessment and Control – AIAA 2008-5214
- SPST Collaborative Prioritization Of Advanced RLV Technologies Derived From A Bottom-Up Process – AIAA 2001-3983

Relevant Sample Study Products and Services

- A process (using algorithm) for a cost effective balance between system safety, reliability and maintainability requirements - Nov. 2002
- Propulsion system architectural choice "(Pro and Cons)" - Feb. 2003
- Identification of current re-usable space transportation system "short falls" and NGLT projections – Oct. 2005

Space Propulsion Synergy Team

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SPST Journal Link Below:
http://www.eaglehill.us/SPAEVOonline/SPAEVO-policy-series.shtml

Apollo 11 50th anniversary
Apollo11plus50.com

Not for Profit Activity
Space Propulsion Synergy Team
SPST WEB LINK BELOW:
http://www.spacepropulsion.org/
Who is the Space Propulsion Synergy Team (SPST)

The SPST (1991 – Present) is a team of National Propulsion Multidiscipline experts (Research and Technologist, Concept and Design Development, Testing and Operations, and Program Management) with extensive Contractor, Government and Academic experience assembled to bridge the communication gap between technology developers and users.

- All members are dedicated to improving Cost, Safety, Reliability, Operability, and Responsiveness required to achieve the key Government Goals for Space Transportation.
- All members have extensive personal technical communication networks.
- SPST members are very open minded team players capable of out-of-the-box thinking and are sensitive to the Government’s (NASA) needs and concerns.
- Many have vast libraries of past performance, cost, and operational information that NASA, Industry and other Governmental organizations have difficulty in acquiring and applying.
- SPST members (many retired) have proven that they will invest time and talent to be beneficial to NASA, Industry and other Governmental organizations having a strong need of this extensive knowledge and experience dating from Post WW II.
- SPST team members grew up with the development and application of the classical “Systems Engineering Process.”
- All have “Real” space systems design, development and launch operations experience.
- Several have been through the entire systems acquisition process - some more than once!

Objectives:

- Provide a Communications Forum for All Aspects of the Propulsion Discipline
- Promote Synergy and Consensus Building
- Support Long Range Strategic Planning
- Enhance Space Propulsion Technology Research & Development Communications
- Enhance Space Propulsion Design & Development Process Communications
- Assist in Space Transportation and Technology with Credible Independent Assessments

What SPST has to Offer

- Diverse, Hands-on Experienced and Knowledgeable Team
- SPST has a passion for Revolutionary Improvement of Space Transportation and we want to help
- The SPST wants to break the mold of Business as Usual
  - “If you always do what you’ve always done, you always get what you always got” Deming Quote
- SPST can provide our existing products and processes presently not included or used in the NASA or Other Government and Industry Process
  - Providing Services, e.g., Workshops, Studies, and Assessments - examples:
    - Provide the insight into reducing cost by improving Operability and Dependability
    - Provide documented “shortfalls” insight of present RLV shuttle system
    - Provide “lessons learned” from many programs and years of experience.
    - Provide Integrated Workshop Technology Assessment Results for Both the Top-down and Bottoms-up Requirements Identification Process

The SPST Philosophy

- SPST will support National Exploration goals
- SPST role is purely complementary
- SPST has “No axes to grind”
- SPST seeks to improve process, not force a specific solution

We only want to help!

SPST Perspectives

- Need to put more effort “up front” before initiating major technology or development activities.
- More emphasis is clearly needed in developing clear, understandable customer requirements (Launch, Space and Ground operations).
- Customer requirements need to include system functional requirements as well as performance requirements.
- More effort needed to identify and understand existing systems “shortfalls”.
- Highlight the “need” to correct shortfall.
- Focus on the application of key design criteria (requirements) to correct shortfalls.
- Identify, evaluate and recommend promising technologies with potential critical application to future missions.
- Critical “needs” to motivate and educate next generation of Aerospace Engineers and Scientists.
- SPST is actively involved in Joint University Programs to attract and retain talented students into the Aerospace programs.
- Imperative that the general public interest and support of SPACE be rekindled to support sustained space exploration and its influence on civilization.
- Current NASA programs are not providing the catalyst for support that is needed to ensure public interest in space.
- Safe, Dependable and Affordable Space Transportation is still the key.