

September 10, 2019

## Mark K. Craig Archive

### List of Publications and Presentations by Mark Craig

#### *Sample List of Documents and Slide Decks in Archive Series 1-16*

1. **NASA's Human Exploration and Development of Space**; keynote at the Students for the Exploration and Development of Space (SEDS) Owls In Space Symposium, Rice University, Houston TX, April 13, 2019.
2. **Settling Space: Building Multinational and Public-Private Partnerships**; presentation to The International MoonBase Summit, Kohala Coast Island of Hawaii, October 1-5, 2017.
3. **Beware ... Mars AND Bust**; *The Space Review*, June 26, 2017.
4. **Report of The Fourth Community Workshop on Achievability and Sustainability of Human Exploration of Mars (AM IV)**, Monrovia CA, December 6-8, 2016, April 2017 (with Senior Editor H. Thronson et al).
5. **Why Space?**; lecture, Professional Science Master's Program, Rice University, Houston TX, August 2016.
6. **Making NASA Human Space Exploration Sustainable**; presentation to the S&MA Technical Speaker Forum, NASA Johnson Space Center, Houston TX, May 2016.
7. **Report of The Third Mars Affordability and Sustainability Workshop**, The Space Policy Institute, George Washington University, Washington DC, December 2-4, 2015, March 2016 (with Senior Editors H. Thronson, C. Carberry, and R. Zucker et al).
8. **Issues and Challenges in Sustainability**; Third Community Workshop on Mars Affordability and Sustainability, Washington DC, December 2015 (with M. L. Dittmar, D. Dumbacher, and A. Zulkosky)
9. **From Apollo to Mars: Letters Home .. What I've Learned**; presentation to Abel Design Group, Houston, TX, November 2015.
10. **Scene Setter: Assessing the Challenge**; presentation to The Promise of Human Space Exploration Advisory Session, The Atlantic Council, Washington DC, April 2014.
11. **NASA 4.0: The Evolution of America's Human Space Exploration Program**; lecture, Houston Spaceport Frontier Lecture Series, Rice University, Houston TX, February 2014.
12. **The Exploration <-> Development of Space "Engine"**; Paper No. IAA - WAS0401 and presentation to the International Academy of Astronautics (IAA) Space Exploration Conference (a pre-Summit Conference of the Heads of Space Agencies Summit on Exploration), Washington DC, January 2014.
13. **NASA Human Spaceflight 3.0**; *Space Times*, Vol. 51, No. 3, May/June 2012, p. 7-9.

14. **How to Reduce Churn in NASA Human Space Exploration**; *Space News*, Dec. 14, 2011.
15. **Improving Human Space Exploration Sustainability**; lecture, University of Alabama in Huntsville, Huntsville AL, November 2011.
16. **Building Long-Term Support for Space Exploration**; presentation to the International Space Development Conference (ISDC) of the National Space Society, Huntsville AL, May 2011.
17. **A Tale of Two Planets ... and a Moon**; lecture, Rice University, March 2011.
18. **NASA Human Space Flight Sustainability - Beyond Dogma and Jobs, Beyond Outreach**; presentation to the Johnson Space Center Story Telling Event, Houston TX, May 2010.
19. **1964 - 1974: Race to the Moon, and Beyond**; presentation to First Presbyterian Church, Houston TX, October 2009.
20. **Creating Relevance - Key to Human Spaceflight Sustainability**; presentation to the MIT Space, Policy, and Society Research Group "The Future of Human Spaceflight" Workshop, August 2009.
21. **The Future of Human Spaceflight**; presentation to the Center for Strategic and International Studies, Washington DC, May 2009.
22. **NASA's Value to the Nation: 50 years of Lessons on Sustainability**; AIAA paper No. 2007-9931, AIAA SPACE 2007 Conference, Long Beach CA, September 2007.
23. **Road Trip From Apollo to Mars: Selected Postcards**; presentation to the Students for the Exploration and Development of Space (SEDS) SpaceVision Conference, University of Central Florida, Orlando FL, November 2006.
24. **The Future of Space Exploration and Development**; presentation to the Le Petite Salon, New Orleans LA, July 2005.
25. **Integration of Quality in Design: Value - The Foundation of Quality**; presentation to the Conference on Quality in the Space and Defense Industries, Cocoa Beach FL, March 2005.
26. **Achieving Profound Public Engagement - The Ultimate Source of Exploration Vision Sustainability**; AIAA paper No. 2005-2568, 1<sup>st</sup> Space Exploration Conference, January 2005.
27. **Creating Sustainability for the President's Space Exploration Vision**, presentation to NASA's Deputy Administrator and Space Architect, February 2004.
28. **Re-Energizing Relevance: Building the Psychological Highway to Space**; presentation to the IAA/ESA Workshop on Next Steps in Exploring Deep Space, Noordwijk Netherlands, October 2003 (with R. Rogers).
29. **NASA Exploration and Discovery for the New World**; presentation to the Branding and Re-branding for the 21st Century Conference, University of Texas at Austin, May 2003.
30. **Considerations for the NASA Exploration Vision/Strategy**; presentation to NASA Management at Administrator O'Keefe's first retreat, March 2002.

31. **Building Sustainability of Human Space Flight**, presentation to NASA Deputy Administrator Fred Gregory, March 2002.
32. **A Sustainable Basis for NASA Human Space Flight**; presentation to the International Space University (ISU) 7th Annual Symposium “Beyond the International Space Station: The Future of Human Spaceflight,” Strasbourg France, June 2002 and to the ISU Master’s Program, Strasbourg France, February 2002.
33. **Idea Generation and NASA Strategy: Approaches, Technologies, Results**; presentation to the CIES Annual Executive Congress, Dublin Ireland, June 2000 and CIES MDP Annual Congress, Edinburgh Scotland, October 2000.
34. **Living on Planet Earth**; keynote address at the IAF Forum on Space Activity in the 21st Century; 3<sup>rd</sup> United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III), Vienna Austria, July 1999.
35. **NASA Human Space Flight – A Context**; presentation to the Johnson Space Center Co-op Forum, May 1999.
36. **An Overall Context for the HEDS Technology/Commercialization Budget Initiative**; presentation to the Human Exploration and Development of Space (HEDS) Next Decade Planning Team (DPT), April 1999.
37. **Enabling the Future of Space Exploration**; presentation to the NASA Administrator’s Vision Integration Team, March 1999.
38. **Strengthening Support for the Human Exploration and Development of Space (HEDS)**; presentation to the CalTech Management Association, Pasadena CA, July 1997.
39. **Strengthening Support for Human Exploration and Development of Space**; presentation to the Office of Space Flight Management Council, January 1997.
40. **Mars/Moon Management – The Necessity for Change and Issues to be Addressed**; presentation to the NASA Human/Robotic Exploration Team (HRET), September 1996 (with David Bates, Roger Bourke, Joseph Hamaker, Humboldt Mandell, Malcolm Peterson, and Donna Shirley).
41. **NASA’s Bridge to Future Markets: The Human Exploration and Development of Space (HEDS) Strategic Plan**; lecture, International Space University (ISU), Vienna Austria, August 1996.
42. **Human Exploration and Development of Space Strategic Enterprise, Proposed Code M Management Model**, presentation to the NASA Office of Space Flight (Code M) Associate Administrator Wil Trafton, March 1996.
43. **Human Exploration and Development of Space (HEDS) Strategic Enterprise Draft Strategy**; presentation to the NASA Advisory Council (NAC), April 1994.
44. **Setting Program Requirements**; *NASA Program/Project Management Conference Report*; NASA SP-6101-07, 1993, p. 13.

45. **Strategic Management Concept and Senior Management Retreat Results**; presentation to NASA senior management, September 1993.
46. **NASA Strategic Management Approach**; presentation to the NASA Senior Management Strategic Planning Retreat, Kennedy Space Center, August 1993.
47. **NASA Strategic Management Status**; presentation to the National Performance Review Working Group, Washington DC, June 1993.
48. **Strategic Management Planning**; presentation to NASA Assoc. Administrator Gen. Jack Dailey, May 1993.
49. **The Space Exploration Initiative**; Paper No. 91-428, 42nd IAF International Congress, Montreal Canada, October 1991 (with A. D. Aldrich and D. A. O'Handley).
50. **The Outbound Trail - Human Exploration of the Moon and Mars**; presentation to the Association of Space Explorers, 7<sup>th</sup> Planetary Congress, Berlin Germany, October 1991.
51. **Exploration Architecture Studies - Policy, Strategy and Challenges**; presentation to NASA senior management, August 1991.
52. **Technology Needs of the Exploration Initiative**; Paper No. 90-032, 41st IAF International Congress, Dresden Germany, October 1990 (with A. D. Aldrich, R. Rosen, and J.C. Mankins).
53. **Exploration Technology Program Plans and Directions**; Paper No. 90-033, 41st IAF International Congress, Dresden Germany, October 1990 (with A.D. Aldrich, R. Rosen, and J.C. Mankins).
54. **A Vision for Space**; *Bicentennial Celebration of U.S. Patent and Copyright Laws - Proceedings, Events and Addresses*, Port City Press, 1990, p. 685-693.
55. **An International Mars Exploration Program**; Paper No. 89-493, 40th IAF International Congress, Malaga Spain, October 1989 (with D. G. Rea, G. E. Cunningham, and H. L. Conway).
56. **The Diverse Role of Unmanned Precursors in Supporting Manned Missions to Mars**; Paper No. 89-496, 40<sup>th</sup> IAF International Congress, Malaga Spain, October 1989.
57. **A Scenario for Human Exploration of the Moon and Mars**; presentation to NASA Administrator Adm. Richard Truly, June 1989.
58. **The Case for a Multinational Mars Surveyor Program**; *The Planetary Report*, Vol. IX, No.5, 1989, p. 12-15 (with D. G. Rea and M. H. Carr).
59. **Exploration of the Solar System: Opportunities and Pathways**, presentation at the 35th American Astronautical Society Symposium, "The 21st Century in Space," St. Louis MO, October 1988.
60. **Integrated Strategies for the Exploration of Mars**; Paper No. 88-391, 39th IAF International Congress, Bangalore India, October 1988.

61. **Mars Rover Sample Return Missions**; Paper No. 88-398, 39th IAF International Congress, Bangalore India, October 1988 (with G.E. Cunningham, D.G. Rea, D.S. Pivrotto, J. Kwok, and M.H. Carr)
62. **Strategic Options for a Lunar Base**; Paper No. 88-615, 39<sup>th</sup> IAF International Congress, Bangalore India, October 1988 (with B.B. Roberts).
63. **Mars Rover Sample Return Mission**; presentation to the 27<sup>th</sup> General Assembly of the Committee on Space Research (COSPAR), Helsinki Finland, July 1988 (with D. G. Rea, M. H. Carr, and J. Martin).
64. **Space Station Configuration Chronology (1983-1987)**; presentation to the National Research Council, Washington DC, July 1987.
65. **Space Station Overview**; *Proceedings, Canadian Engineering Centennial Convention*, The Canadian Society for Mechanical Engineering, Montreal Canada, May 1987.
66. **NSTS Ascent Abort and Crew Escape Capabilities**; presentation to NASA Administrator James Fletcher, at his request after the Challenger accident, March 1987.
67. **Definition Status of the U.S. Space Station System**; Paper No. 86-32, 37th IAF International Congress, Innsbruck Austria, October 1986.
68. **Space Station Reference Configuration**; presentation to the National Commission on Space, Houston TX, July 1985.
69. **Space Station Design - Innovation and Compromise**; *Aerospace America*, Vol. 22, No. 9, September 1984, p. 70-72 (with L. E. Powell and A. Cohen).
70. **Space Station Configuration Analysis Summary**; presentation to the Space Station Program Manager recommending configuration selection, June 1984.
71. **Problems and Concepts of Space Station Guidance, Navigation and Control**; Paper No. 84-1139, AIAA Space Systems Technology Conference, Costa Mesa CA, June 1984 (with A. Guha).
72. **Rocket Exhaust Plume-Induced Flowfield Interaction Experiences with the Space Shuttle**; Paper No. 83-1549, AIAA Thermophysics Conference, Montreal Canada, June 1983 (with B. B. Roberts, R. O. Wallace, and D. B. Kanipe).
73. **Shuttle Booster Separation Aerodynamics**; *Space Shuttle Performance Lessons Learned Conference Report*, NASA CP-2283, 1983, p. 139-157 (with H. S. Dresser).
74. **Shuttle Launch Debris - Sources, Consequences, Solutions**; *Space Shuttle Performance Lessons Learned Conference Report*, NASA CP-2283, 1983, p. 159-185.
75. **The Space Shuttle Vehicle Ascent Aerodynamic Challenges - Configuration Design and Data Base Development**; *Space Shuttle Technical Conference Report*, NASA CP-2342, 1983, p. 151-176 (with C.C. Dill, J.C. Young, B.B. Roberts, J.T. Hamilton, and W.W. Boyle)

76. **An Analytical Tool for Simulating Large Amplitude Propellant Slosh**; Paper No. 81-0500, AIAA Dynamics Specialists Conference, Atlanta GA, April 1981 (with R. L. Berry, L.J. Demchek, and J.R. Tegart).
77. **Measurement of Forces Due to Liquid Motion in a Propellant Tank**; Paper No. 81-0566, AIAA Dynamics Specialists Conference, Atlanta GA, April 1981 (with J.R. Tegart, R.L. Berry, and L.J. Demchek)
78. **Shuttle Small Self-Contained Payloads: "Getaway" to the Educational Opportunities of Space**; Paper No. 78-135, AAS Future of the United States Space Program Conference, Houston, TX, October 1978 (with T. B. Murtagh and C. A. Jacobson).
79. **An Analysis of Atmospheric Entry Trajectories for Manned and Unmanned Missions to the Planet Venus**; NASA TN D-7316, 1973 (with R. G. Gonzales).
80. **Vehicle Performance Impact on Space Shuttle Design and Concept Evaluation**; *Space Shuttle Aerothermodynamics Technology Conference Report*, NASA TM X-2509, 1971.
81. **A Design Parameter Synthesis Derived from a Mathematical Analysis of a Hypothetical Lunar Flying Vehicle**; NASA GWP 10084, 1969 (with W. L. Jacqmein and D. L. Hall).
82. **Apollo Spacecraft 105 Testing**; *Purdue Engineer*, Vol. 64, No. 1, October 1967, p. 52-56.