## I. STEVE SMITH, JR.

Senior Program Manager Department of Space Systems Space Science and Engineering Division

B.S., Aerospace Engineering, Texas A&M University, 1974

Mr. Smith has over 40 years experience in scientific balloon, stratospheric and low altitude airship design, general lighter-than-air (LTA) and inflatable vehicles and systems design, development and implementation. He is currently the manager of the HiSentinel, Tactical Aerobotic Launch System (TALS) and Inflatable THz Large Balloon Reflector (LBR). He is responsible for the definition, formulation and implementation of terrestrial and extraterrestrial LTA and inflatable systems development activities at SwRI since joining the Institute in 2004.

Mr. Smith's career management experience includes space and near-space activities; in particular balloon, inflatable and airship technologies related programs on national and international levels. Prior to joining SwRI, Mr. Smith was Chief of the NASA Balloon Program Office of Goddard Space Flight Center which conducted world-wide flight operations. Mr. Smith was responsible for the NASA technology vision and plans and successful implementation of those activities related to providing increased capability for terrestrial and planetary (Mars, Venus, Titan) missions in terms of duration, altitude and payload support. This included development, planning, budgeting and management of specific and general technology development activities, operational programs and special projects utilizing those technologies for commercial, defense, scientific and space applications.

Mr. Smith has conducted or directed LTA-related studies and development activities for: terrestrial and planetary mission concepts; polymeric film processing, testing and characterization; non-linear finite element structural modeling; flight performance modeling; laboratory and flight instrumentation development and testing; development of flight/mission support systems and operations; and quality assurance. He has extensive design and analysis experience with free balloon systems as well as tethered aerostat and airship flight systems and operations.

PUBLICATIONS: Numerous technical publications and co-author of a feature article "Floating in Space" of Scientific American.

HONORS & AWARDS: Lighter-Than-Air Society Achievement Award; NASA Exceptional Service Medal; numerous other NASA Group, Special Act and Performance awards.

PROFESSIONAL CHRONOLOGY: National Scientific Balloon Facility: senior balloon engineer, 1974-83; NASA, Goddard Space Flight Center, 820/Balloon Program Office (BPO): balloon technology manager, 1983-2000; Chief, 2000-3; Southwest Research Institute: Senior Program Manager, 2004-present.

MEMBERSHIPS: former member of NASA Space Science Executive Joint Working Group; former charter member of the AIAA Balloon Systems and Technology; former member of the AIAA Aerodynamic Decelerators Technical Committees; AIAA member; member of the International Committee for Space Research (COSPAR); COSPAR PSB1 Vice-Chair; PSB1 Deputy Scientific Organizer for COSPAR 2002 World Space Congress; PSB1 Main Scientific Organizer for COSPAR 2004 and 2012.

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