NAME: SCOTT J. BOLTON

ORGANIZATION: SOUTHWEST RESEARCH INSTITUTE AND THE JET PROPULSION LABORATORY

BIOGRAPHICAL SKETCH

Dr. Scott Bolton is the Director of the Space Sciences Department at Southwest Research Institute (SwRI). Dr. Bolton is the Principal Investigator for the Juno mission, the second investigation in NASA's New Frontiers program. Prior to being Director at SwRI, Dr. Bolton was a senior scientist at JPL for over 25 years. He is a Co-Investigator on a number of NASA missions including experiments on the Cassini and Galileo missions. Dr. Bolton chairs the Titan science group for the Cassini-Huygens mission and is responsible for the formulation of the scientific investigation of Saturn's moon Titan. Dr. Bolton has been a Principal Investigator with NASA on various research programs since 1988. His research includes the modeling of the Jovian and Saturnian radiation belts, atmospheric dynamics and composition, and the formation and evolution of the solar system. He has authored of over 100 scientific papers. Dr. Bolton has held a wide variety management, engineering and scientific positions on missions at JPL including Cassini, Galileo, DS-1, Voyager, Magellan, Quasat, Genesis, Solar Probe, and CRAF. In addition to scientific research, his experience at JPL spans mission design, instrument design and delivery, mission development, science planning, and science operations. Dr. Bolton received his B.S. in Aerospace Engineering from U. Michigan in 1980, and a Ph.D. in Astrophysics from U.C. Berkeley in 1990. He received the NASA Exceptional Achievement Medal in 2002; the NASA Exceptional Scientific Achievement Medal in 1994; JPL Individual Awards for Exceptional Excellence in Leadership in 2002, 2001, and 1996, and Excellence in Management in 2000; he has also received nine NASA Group Achievement Awards. Dr. Bolton maintains a relationship with JPL through a special appointment as a Senior Staff Scientist.

Experience

2005 – present	Director, Space Science Department, Southwest Research Institute
2005 – present	Senior Staff Scientist, Solar System Exploration Science Research and Analysis, Jet Propulsion Laboratory, Caltech
1987-2005	Principal Scientist, Earth and Space Sciences Division, Jet Propulsion Laboratory, Caltech
1980-1987	Technical Staff, Advanced Mission Design Section, Jet Propulsion Laboratory, Caltech

Education

1976 - 1980	University of Michigan, Ann Arbor, MI, BS, Aerospace Engineering
1982 - 1984	California Institute of Technology, Pasadena, California, Physics Dept
1986 - 1990	University of California, Berkeley, CA, Ph.D., Astrophysics

Scientific Research

- PI, NASA Juno Project
- PI, NASA Planetary Astronomy, Planetary Atmospheres and Space Physics Divisions
- Co-I, Galileo PLS experiment
- Co-I, Galileo PWS experiment
- Co-I, Cassini Plasma experiment (CAPS)

- Co-I, Cassini Energetic Particle experiment (MIMI)
- PI and Co-I, VLA, Hubble, and Chandra Observations

Awards

NASA Exceptional Achievement Medal, Cassini, 2002.

NASA Group Achievement Award for Cassini Jupiter Flyby, 2002.

JPL Individual Award for Exceptional Excellence in Leadership, 2002.

JPL Group Award for Exceptional Technical Excellence, Cassini Jupiter Encounter, 2002.

JPL NOVA Individual Award for Cassini Titan Science Leadership, TMOD, 2001

NASA Group Achievement Award-Cassini Jupiter Microwave Obs., 2001

JPL NOVA Individual Award for Excellence in Management, Astrophysics, 2000.

NASA Group Achievement Award - Cassini Instrument Development 1998.

NASA Group Achievement Award - Galileo Science, 1998.

JPL NOVA Individual Award for Excellence in Leadership, Astrophysics, 1996.

NASA Group Achievement Award - Galileo Science, 1995.

NASA Scientific Exceptional Achievement Medal, 1994

NASA Group Achievement Award, 1991.

NASA Group Achievement Award - Galileo Science, 1990.

NASA Group Achievement Award Galileo Instrument Development, 1989.

SELECTED PUBLICATIONS (FULL LIST AVAILABLE UPON REQUEST).

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Garrett, H.B. et al., A revised model of Jupiter's inner electron belts: Updating the Divine radiation model, Geophys. Res. Lett, Vol 32, No. 4, L04104, 2005.

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Santos-Costa D et al., *Adv Space Sci.* "Synchrotron emission images from three-dimensional modeling of the Jovian electron radiation belts", 28 (6): 915-918, 2001.

Waite JH, Grodent D, Mauk BM, Majeed T, Gladstone GR, Bolton SJ, Clarke JT, Gerard JC, Lewis WS, Trafton LM, Walker RJ, Ingersoll AP, Connerney JEP "Multispectral observations of Jupiter's Aurora", *Planetary Ionospheres And Magnetospheres Advances In Space Research*, 26: (10) 1453-1475, 2000.

Gurnett DA, Persoon AM, Kurth WS, Roux A, Bolton SJ, "Plasma densities in the vicinity of Callisto from Galileo plasma wave observations", *Geophysical Research Letters*, 27: (13) 1867-1870, July 1 2000.

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Bolton SJ , "Interpretation of the observed changes in Jupiter's synchrotron radiation during and after the impacts from comet Shoemaker-Levy 9", *Planetary And Space Scienc*E, 45: (10) 1359-1370, Oct. 1997.

Bolton SJ, Thorne RM, Gurnett DA, Kurth WS, Williams DJ, "Enhanced whistler-mode emissions: Signatures of interchange motion in the Io torus", *Geophysical Research Letters*, 24: (17) 2123-2126, Sept. 1 1997.

Thorne RM, Armstrong TP, Stone S, Williams DJ, McEntire RW, Bolton SJ, Gurnett DA, Kivelson MG, "Galileo evidence for rapid interchange transport in the Io torus", *Geophysical Research Letters*, 24: (17) 2131-2134, Sept. 1 1997.

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Bolton SJ, Foster Rs, Waltman Wb, "Observations Of Jupiter Synchrotron-Radiation At 18 Cm During The Comet Shoemaker-Levy/9 Impacts", *Geophysical Research Letters*, 22: (13) 1801-1804, July 1 1995.

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Bolton SJ, Gulkis S, Klein Mj, Depater I, Thompson Tj, "Correlation Studies Between Solar-Wind Parameters And The Decimetric Radio-Emission From Jupiter", *Journal Of Geophysical Research-Space Physics*, 94: (A1) 121-128, Jan. 1 1989.