

Wesley T. Huntress, Jr

Career Summary

<u>Scientist</u>	California Institute of Technology/Jet Propulsion Laboratory, 1968-1988 Carnegie Institution for Science, Geophysical Laboratory, 1998-2008
<u>Academic</u>	Caltech, Visiting Professor of Cosmochemistry, 1987-88
<u>Line Mgt</u>	JPL Molecular Physics & Chemistry Section Manager JPL Earth Atmospheres and Ocean Sciences Section Manager CIW Director, Geophysical Laboratory
<u>Program</u>	JPL Planetary Atmospheres Program Manager JPL Atmospheres Program Manager JPL Earth Sciences Program Manager
<u>Admin</u>	NASA, Assistant to Director, Earth Science & Appl. Division, 1988-1990 NASA, Director, Solar System Exploration Division, 1990-1993 NASA, Associate Administrator for Space Science, 1993-1998
<u>JPL Projects</u>	Mariner 10, Pre-Project Charged Particle Experiment Study Team Upper Atmosphere Research Satellite, JPL Pre-Project Study Scientist GIOTTO, HERS Ion Mass Spectrometer Investigator Comet Rendezvous Asteroid Flyby, Interdisciplinary Scientist Cassini-Huygens, U.S. Pre-Project Study Scientist Mars Opportunity Rover, SAM Instrument Collaborating Scientist
<u>Program Starts at NASA</u>	Discovery Program of small planetary missions Mars Pathfinder/Sojourner Rover mission Mars Exploration Program to launch missions to Mars every 26 months SOFIA Airborne Observatory Spitzer Infrared Space Telescope TIMED Earth Ionosphere – Magnetosphere mission New Millennium Program of Technology Test Flights Technology Development program for outer planet flight missions The Astrobiology Research Program and NASA Astrobiology Institute Origins Program to search for planets around other stars and for evidence of past or current habitability and life on solar system bodies.

Education

<u>High School</u>	Washington-Lee H.S., Arlington, VA, Diploma 1960
<u>Undergraduate</u>	Brown University, Providence, RI, B.S. in Chemistry 1964, with Honors
<u>Graduate</u>	Stanford University, Stanford, CA, Ph.D. in Chemical Physics 1968
<u>Honorific</u>	Brown University, Providence RI, Honorary Doctorate in Science 2005

Ph.D Thesis Research Advisor J. D. Baldeschwieler, Chemistry Dept. Stanford University

Part I. Nuclear Magnetic Resonance Studies of Anisotropic Molecular Rotational Diffusion in Liquids.

Part II. A Study on the Application of Ion Cyclotron Magnetic Resonance to Problems in Prebiotic Synthesis.

Employment History

1968 – 1969 National Research Council Resident Research Associate at NASA/JPL
1969 – 1990 Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA
1990 – 1998 National Aeronautics and Space Administration, Washington, DC
1998 – 2008 Geophysical Laboratory, Carnegie Institution for Science, Washington, DC
2008 – today Retired

Research

Laboratory Studies

Ion Cyclotron Resonance studies of gas phase ion-molecule reactions
Ion-molecule reactions in interstellar clouds, comets and planetary atmospheres

Theoretical Modeling Studies

Chemical evolutionary models of interstellar clouds
Chemical models of cometary comae

Spacecraft Data Analysis

Chemistry of Comet Halley's coma using GIOTTO Ion Mass Spectrometer Data

Astronomical Observations

Observations of carbon monoxide and search for interstellar hydrocarbons in the interstellar medium and in young stars using the Canada-France-Hawaii Telescope with a High-Resolution Fourier Transform IR Instrument at 2-5 microns

Patents

1978 An Ion and Electron Detector for Ion Cyclotron Resonance Spectroscopy
1980 A Miniature Ion Cyclotron Resonance Spectrometer

Publications

Scientific publications

More than 100 publications in refereed scientific journals on topics in nuclear magnetic resonance, ion cyclotron resonance, ion-molecule reactions, planetary atmospheres, comets,

interstellar clouds, lunar samples and spacecraft data analysis. The majority are laboratory studies, followed by theoretical modeling and field observations.

Exploration publications

Recent publications have included work on the scientific exploration of space and the history of solar system exploration with a focus on the Russian robotic lunar and planetary exploration program.

Professional Organizations

Division of Planetary Sciences, American Astronomical Society, Member and Former Chair
American Astronautical Society, Fellow and Former President
International Academy of Astronautics, Academician and Former Science Commission Chair
The Planetary Society, Board Member, Former President and Vice-President
Royal Astronomical Society, Associate Member
National Academy of Science, Lifetime Associate

Awards and Honors

1974 NATO Senior Fellowship Award, at Warwick University, Great Britain
1981 Appointment to JPL Senior Research Scientist
1988 NASA Exceptional Service Medal
1994 NASA Outstanding Leadership Medal
1994 U.S. Presidential Meritorious Executive Award
1995 U.S. Presidential Distinguished Executive Award
1996 NASA Distinguished Service Medal
1996 Fellow of the American Astronautical Society
1997 Scriber-Spence Award
1997 NASA Distinguished Service Medal
1998 Robert H. Goddard Award (Goddard Space Flight Center)
1998 Main Belt Asteroid 7225 named Huntress
1998 American Astronautical Society Carl Sagan Award
1999 AAS Div for Planetary Science Harold Masursky Award
1999 Caltech Management Award
2000 National Endowment for the Arts Presidential Design Award for Mars Pathfinder
2003 AIAA Dryden Lectureship in Research
2004 Lifetime Associate of the National Academies
2005 Associate of the Royal Astronomical Society
2005 Honorary Doctorate in Science, Brown University
2006 American Astronautical Society William Randolph Lovelace II Award
2013 NASA Exceptional Public Service Medal

Boards and Appointments:

1994 - 2002 American Astronautical Society, Board of Directors, (Pres. 1998-2000)
1999 - 2003 Planetary Science Institute, Board of Trustees
1999 - 2003 National Research Council, Division Committee on Engin. & Phys. Sci.
1999 - 2007 SpaceDev Corporation, Board of Directors

1999 - 2016 Caltech/JPL Distinguished Visiting Scientist
1999 - 2012 The Planetary Society, Board of Directors (President 2001-2006)
2000 - 2002 Association of Universities for Research in Astronomy, Board of Directors
2001 - 2019 JPL Directors Advisory Council (Co-chair 2001-2005)
2001 - 2016 Johns Hopkins Applied Physics Lab, Space Dept Advisory Council
2003 - 2006 International Space Science Institute, Science Advisory Board
2005 - 2006 NASA Ames Research Center, Advisory Council
2005 - 2006 NASA Advisory Council, member
2009 - 2013 NASA Advisory Council, member, Chair of the Science Committee
2013 - 2017 National Research Council, Space Studies Board