

Thomas N. Woods

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Research Interests:

Solar Physics, Sun-Climate, Space Weather, Earth's Atmosphere, Comets

Education:

B.S.	Physics	1981	Southwestern At Memphis (now Rhodes College)
M.A.	Physics	1982	The Johns Hopkins University
Ph.D.	Physics	1985	The Johns Hopkins University (Advisor: Paul Feldman)

Appointments:

2005-Present	Associate Director of Technical Divisions	Lab. for Atmos. and Space Physics (LASP) University of Colorado (CU)
1997-Present	Senior Research Scientist	LASP / CU
1992 - 1997	Scientist II, III	High Altitude Observatory / NCAR
1987 - 1992	Research Associate	LASP / CU
1985 - 1987	Associate Research Scientist Lecturer (General Physics)	Dept. of Physics and Astronomy The Johns Hopkins University (JHU)
1981 - 1985	Teaching/ Research Assistant	JHU Dept. of Physics and Astronomy
Summer 1981	Graduate Research Assistant	Los Alamos National Laboratory
Summer 1980	Undergraduate Research	Goddard Institute of Space Studies

Research Experience:

2008-Present	Co-Investigator	NASA Mars Atmosphere and Volatile Evolution (MAVEN) mission [PI: Bruce Jakosky]
2007-Present	Co-Investigator	NOAA GOES-R EUV X-Ray Irradiance Sensors (EXIS) Implementation Phase (PI: Frank Eparvier)
2004-2007	Principal Investigator	NOAA GOES-R EXIS Formulation Phase (Lockheed Martin contract)
2002-Present	Principal Investigator	NASA calibration rocket experiments for TIMED SEE (5 flights) and SDO EVE (4 flights)
2002-Present	Principal Investigator	EUV Variability Experiment (EVE) on the NASA Solar Dynamics Observatory (SDO)
1995-1996	Principal Investigator	Solar EUV Experiment (SEE) on the NASA METEOR mission
1993-Present	Principal Investigator	Solar EUV Experiment (SEE) on the Thermosphere, Ionosphere, Mesosphere Energetics and Dynamics (TIMED) mission
1991-1994	Principal Investigator	Analysis of San Marco 5 Satellite Solar Data
1989-Present	Project Scientist, SORCE PI since 2006	Solar Radiation and Climate Experiment (SORCE) as mission for NASA Earth Observing System
1989-1993	Principal Investigator	Scattered Light Measurements for the TOMS Gratings (contract from Perkin-Elmer)
1988-1996	Principal Investigator	Solar Irradiance and Thermospheric Airglow Rocket Experiments (3 different programs)
1987-2005	Co-Investigator, Instrument Scientist	SOLar STellar Irradiance Comparison Experiment (SOLSTICE) on NASA UARS
1982-1987	Chief Instrument Scientist	Sounding Rocket / Shuttle Experiments

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Professional Activities and Awards

- NASA Group Achievement Award for SDO Science Group, 2012.
- NASA Group Achievement Award for SDO Satellite Development Group, 2011.
- NASA Group Achievement Award for TIMED SEE Science Group, 2011.
- Member of the Solar and Heliospheric Physics panel of the Decadal Strategy for Solar and Space Physics (Heliophysics), National Academies Space Study Board, 2010-2011.
- Member of the NASA Solar And Heliospheric Management Operations Working Group (SH-MOWG), 2010-present.
- Member of the NASA Sounding Rocket Management Operations Working Group (SR-MOWG), 2006-2009.
- Member of the international Working Group 1 (Solar Variations) of the Climatology of the Sun-Earth System (Theme 4) of the Climate And Weather of the Sun-Earth System (CAWSES), 2004-2008.
- NASA Group Achievement Award for SORCE Mission Group, 2004.
- NASA Group Achievement Award for TIMED Satellite Development Group, 2002.
- Member of the international Thermospheric-Ionospheric-Geospheric (TIGER) working group, organizer for solar EUV measurement sessions, special sessions at COSPAR meetings, 1995-Present.
- Chairman of the Solar EUV Working Group of the SOLAR Electromagnetic Radiation Study for solar cycle 22 (SOLERS 22) for the Solar-Terrestrial Energy Program (STEP), 1990-2000.
- Member of the NASA Space Physics Division's committee to define the Solar Ultraviolet Radiation and Correlative Experiment (SOURCE) Satellite, 1991-1993.
- NASA Group Achievement Award for UARS Instrument Development Group, 1991.
- NASA Group Achievement Award for Rocket Calibration of the San Marco ASSI, 1988.
- Member of the American Geophysical Union (AGU), with Space Physics and Aeronomy (SP) and Atmospheric Sciences (AS) affiliations
- Member of the American Astronomical Society (AAS), Solar Physics Division (SPD)
- Member of the American Institute of Aeronautics and Astronautics (AIAA)
- Member of the SPIE: international society for optics and photonics

Example Publications

- Woods, T. N., F. G. Eparvier, R. Hock, A. R. Jones, D. Woodraska, D. Judge, L. Didkovsky, J. Lean, J. Mariska, H. Warren, D. McMullin, P. Chamberlin, G. Berthiaume, S. Bailey, T. Fuller-Rowell, J. Sojka, W. K. Tobiska, and R. Viereck, The EUV Variability Experiment (EVE) on the Solar Dynamics Observatory (SDO): Overview of Science Objectives, Instrument Design, Data Products, and Model Developments, *Solar Phys.*, 275, 115-143, doi 10.1007/s11207-009-9487-6, 2012.
- Woods, T. N., R. Hock, F. Eparvier, A. R. Jones, P. C. Chamberlin, J. A. Klimchuk, L. Didkovsky, D. Judge, J. Mariska, H. Warren, C. J. Schrijver, D. F. Webb, S. Bailey, and W. K. Tobiska, New Solar Extreme Ultraviolet Irradiance Observations during Flares, *Astrophys. J.*, 739, 59, doi:10.1088/0004-637X/739/2/59, 2011.
- Woods, T. N., P. C. Chamberlin, J. W. Harder, R. A. Hock, M. Snow, F. G. Eparvier, J. Fontenla, W. E. McClintock, and E. C. Richard, Solar Irradiance Reference Spectra (SIRS) for the 2008 Whole Heliosphere Interval (WHI), *Geophys. Res. Lett.*, 36, L01101, doi:101029/2008GL036373, 2009.