

## VITA

JOHN W. HARVEY

Date of Birth: September 13, 1940  
Birthplace: Los Angeles, California  
Marital Status: Married, 1 child  
Education:  
1969 Ph.D., University of Colorado  
1964 M.A., University of California  
1963 B.A., University of California  
Employment:  
1984 - date: Astronomer/Tenure, National Solar Observatory  
1974 - 1983: Astronomer/Tenure, Kitt Peak National Observatory  
1972 - 1974: Associate Astronomer, Kitt Peak National Observatory  
1969 - 1972: Assistant Astronomer, Kitt Peak National Observatory  
1964 - 1969: Graduate Assistant, High Altitude Observatory  
1959 - 1964: Research Assistant, Lockheed Solar Observatory  
Professional Memberships:  
American Astronomical Society  
American Geophysical Union  
Committee on Space Research  
International Astronomical Union  
Institute of Electrical and Electronic Engineers  
Professional Activities:  
1974 - 1977: -Member, High Altitude Observatory Advisory Committee  
1975 - 1998: -Member, Editorial Board, *Solar Physics*  
1975 - 1976: -Participant, NASA Coronal Hole Workshop  
1975 - 1980: -Member, NASA Facility Definition Team, Solar Optical  
Telescope for Spacelab  
1976 - 1992: -Co-Investigator, Solar Optical Universal Polarimeter  
Experiment for Spacelab 2 (Payload Specialist Candidate)  
1977 - 1978: -Chairman, KPNO Solar System Program  
1978 - 1979: -Member, NASA Solar Cycle and Dynamics Mission Science  
Working Group  
1979 - 1980: -Member, NAS Solar Physics Working Group, Astronomy  
Survey Committee.  
1979 - 1980: -Vice Chairperson, AAS Solar Physics Division  
1979 - 1980: -Member, Organizing Committee IAU Commissions 10 & 12  
1980: -Member, NASA Science and Applications Space Platform  
Users Group  
1980 - 1981: -Chairperson, AAS Solar Physics Division  
1981: -Member, Scientific Programs Evaluation Committee,  
University Corporation for Atmospheric Research  
1981 - 1985: -Member, Editorial Committee, *Annual Review of  
Astronomy and Astrophysics*  
1981 - 1984: -Member, NAS Committee on Solar and Space Physics  
1981 - 1992: -Co-Investigator, Coordinated Filtergraph Spectrograph  
for the Orbiting Solar Laboratory  
1981 - 1992: -Facility Scientist, NASA Orbiting Solar Laboratory  
1981 - 1988: -Member, NASA Advanced Solar Observatory Science

June 10, 1999

Working Group  
1982: -Vice Chairperson, AAS Solar Physics Division  
1982 - 1985: -Member, NSF Astronomy Advisory Committee  
1983: -Member, KPNO NNTT Scientific Advisory Committee  
1983 - 1984: -Member, NASA Science Working Group on the Measurement of Solar Oscillations from Space  
1983 - 1986: -Member, Organizing Committee, IAU Commission 12  
1983 - 1985: -Member, AAS Warner/Pierce Prize Committee  
1984 - 1987: -Member, NASA Space and Earth Science Advisory Committee  
1984 - 1987: -Member, NASA Helioseismology Steering Committee  
1985 - 1988: -Vice President, IAU Commission 12  
1987 - 1988: -Member, NAS Committee on Solar Physics  
1988 - 1995: -Member, NASA Solar Probe Science Study Team  
1988 - 1991: -President, IAU Commission 12  
1989: -Invited Lecturer, NCAR Summer Colloquium  
1989 - 1990: -Member, NAS AASC Solar Panel  
1990 - 1995: -Member, NASA Solar Physics Management Operations WG  
1991 - 1994: -Member, IAU Commission 12 Organizing Committee  
1994 - 1997: -Member, IAU Commission 10 Organizing Committee  
1995: -Member, NRL External Review Panel for Solar Physics  
1996: -Member, NASA Solar Probe Science Definition Team  
1996 - 1998: -Member, NASA SOLAR-B Science Definition Team  
1997 - 1999: -Member, AAS Heineman Prize Committee  
1998 - -Editor, *Solar Physics*

Field Experience:

Conducted experiments at total solar eclipses in Alaska (1963), Mexico (1970), Mauritania (1973), and India (1980). Successful solar observations from geographic South Pole (1981, 1987, 1988, 1990, & 1994). Participated in ground operations of Solar Optical Universal Polarimeter experiment on Spacelab 2 (1985).

Honors and Awards:

1981: James Arthur Lecture, Center for Astrophysics.  
1982: Antarctic Service Medal.  
1984: Annual Spring Lecturer, Princeton Dept. of Astrophysical Sciences.  
1990: NASA Exceptional Scientific Achievement Medal.  
1994: Alan Berman Research Publication Award.  
1995: AURA Science Award.  
1996: Name given to an Antarctic Mountain.  
1999: AAS/SPD George Ellery Hale Prize.

PUBLICATIONS

1. "Height of an Ellerman 'Bomb'," J. Harvey, *The Observatory* **83**, 37, 1963.
2. "Photospheric Granulation in the Near Ultraviolet," J. Harvey and H. E. Ramsey, *Pub. Astron. Soc. Pacific* **75**, 283, 1963.
3. "Photospheric Magnetic Fields and Chromospheric Features," R. Howard and J. W. Harvey, *Astrophys. J.* **139**, 1328, 1964.
- 3a. "Coronal Polar Rays and Polar Magnetic Fields", J. W. Harvey, *Astrophys. J.* **141**, 832, 1965.
4. "The Magnetic Field in Some Prominences Measured with the He I, 5876 Å Line," J. W.

- Harvey and E. Tandberg-Hanssen, *Solar Phys.* **3**, 316, 1968.
5. "Coronal Polar Plumes," Gordon Newkirk and J. W. Harvey, *Solar Phys.* **3**, 321, 1968.
  - 6a. "Influence of Magnetic Fields on the Structure of the Solar Corona," G. Newkirk, M. D. Altschuler and J. Harvey, *IAU Symp.* **35**, 379, 1968.
  6. "Magnetic Fields Associated with Solar Active-Region Prominences," J. W. Harvey, *NCAR Cooperative Thesis No. 17*, NCAR, Boulder, 1969.
  7. "Magnetograph Measurements with Temperature-Sensitive Lines," J. Harvey and W. Livingston, *Solar Phys.* **10**, 283, 1969.
  8. "Observational Evidence for Quantization in Photospheric Magnetic Flux," W. Livingston and J. Harvey, *Solar Phys.* **10**, 294, 1969.
  9. "Magnetic Fields Associated with Solar Active Region Prominences", J. W. Harvey, *National Center for Atmospheric Research Cooperative Thesis No. 17*, 1969.
  10. "The Improved Solar Magnetograph of the High Altitude Observatory," J. W. Harvey, R. H. Lee and E. Tandberg-Hanssen, *Applied Optics* **8**, 2370, 1969.
  11. "Photospheric Magnetic Fields on March 7, 1970," W. Livingston, J. Harvey and C. Slaughter, *Nature* **226**, 1146, 1970.
  12. "Comments on a Paper by Semel," J. Harvey and W. Livingston, *Astron. Astrophys.* **9**, 151, 1970.
  13. "Short Period Oscillations and Doppler Velocity Gradients," J. Harvey, *Solar Phys.* **11**, 26, 1970.
  14. "Spectroscopic Determinations of Solar Rotation," R. Howard and J. Harvey, *Solar Phys.* **12**, 23, 1970.
  15. "Fraunhofer Lines Without Zeeman Splitting," G. Sistla and J. W. Harvey, *Solar Phys.* **12**, 66, 1970.
  16. "Solar Magnetic Fields - Small Scale," J. Harvey, *Pub. Astron. Soc. Pacific* **83**, 539, 1971.
  17. "Magnetic Fields Measured with the 10830 Å He I Line," J. W. Harvey and D. N. B. Hall, *IAU Symp.* **43**, 279, 1971.
  18. "The Kitt Peak Magnetograph I. Principles of the Instrument," W. Livingston and J. W. Harvey, *Kitt Peak National Observatory Contribution No. 558*, 1971.
  19. "The Kitt Peak Magnetograph IV. 40-Channel Probe and the Detection of Weak Photospheric Fields," W. Livingston and J. W. Harvey, *IAU Symp.* **43**, 51, 1971.
  20. "The Kitt Peak Magnetograph III. Automation and the 40-Channel Probe," W. Livingston, J. W. Harvey and C. D. Slaughter, *Publ. Royal Obs. Edinburgh* **8**, 52, 1971.
  21. "Observations of Magnetic Field Changes in Active Regions," K. L. Harvey, W. C. Livingston and J. W. Harvey, *IAU Symp.* **43**, 422, 1971.

22. "A Line-Profile Stokesmeter: Preliminary Results on Non-Sunspot Fields," J. W. Harvey, W. Livingston and C. D. Slaughter, *Line Formation in the Presence of Magnetic Fields (HAO Conference Proceedings)*, 227, 1972.
23. "Observations of Short Period Oscillations in Two Dimensions," J. W. Harvey and R. Howard, *Solar Phys.* **23**, 300, 1972.
24. "A Comparison Between the Helium 10830 Å and the Hydrogen H $\alpha$  Chromospheres," R. G. Giovanelli, D. N. B. Hall and J. W. Harvey, *Solar Phys.* **22**, 53, 1972.
25. "Real-Time Masking of Solar Photographs with Photochromic Glass" J. W. Harvey, *AAS Photo-Bulletin*, No. 1, 5, 1972.
26. "Interferometry Applied to Visible Solar Features," J. W. Harvey, *Nature* **235**, 90, 1972.
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30. "Polar Magnetic Fields and the New Solar Cycle," B. Gillespie, J. Harvey, W. Livingston and K. Harvey, *Astrophys. J.* **186**, L85, 1973.
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42. "The Calculation of Force-Free Fields from Discrete Flux Distributions," N. R. Sheeley, Jr. and J. W. Harvey, *Solar Phys.* **45**, 275, 1975.
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44. "The Kitt Peak 60-cm Vacuum Telescope," W. C. Livingston, J. Harvey, A. K. Pierce, D. Schrage, B. Gillespie, J. Simmons and C. Slaughter, *Applied Optics* **15**, 33, 1976.
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  79. "Power Spectrum of Differential Refraction and Comparison with Solar Diameter Fluctuation Measurements," E. Fossat, G. Grec and J. W. Harvey, *Astron. Astrophys.* **94**, 95, 1981.
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  81. "Variation of the Solar He I 10830 Å Lines: 1977 - 1980," J. W. Harvey, in *Variations of the Solar Constant*, (ed. S. Sofia), NASA CP 2191, p. 265, 1981.
  82. "Kitt Peak Coronal Velocity Experiment," W. Livingston, J. Harvey, L. A. Doe, B. Gillespie and G. Ladd, in *Observations of Total Solar Eclipse 16 February 1980*, (ed. S. Trehan), Indian National Science Academy, New Delhi, p. 19, 1981.
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  85. "Observations of Coronal Structure During Sunspot Maximum," N. R. Sheeley, Jr., R. A. Howard, M. J. Koomen, D. J. Michels, K. L. Harvey and J. W. Harvey, *Space Sci. Rev.* **33**, 219, 1982.
  86. "Astronomy on Ice," J. Harvey, M. Pomerantz and T. Duvall, Jr., *Sky and Telescope* **64**, 520, 1982.
  87. "Coherent Scattering in the Solar Spectrum: Survey of Linear Polarization in the Range 3165 - 4230 Å," J. O. Stenflo, D. Twerenbold and J. W. Harvey, *Astron. Astrophys. Suppl.* **52**, 161, 1983.
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94. "Large Scale Motions and Structure of the Sun," M. A. Pomerantz, J. W. Harvey and T. Duvall, Jr., *Antarctic J. of the U. S.* **17**, (5), 232, 1983.
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98. "Helium 10830 Å Irradiance: 1975-1983," J. Harvey, in *Workshop on Solar Variability on Active Region Time-Scales*, (eds. G. Chapman, H. Hudson, B. La Bonte), NASA CP-2310, 197, 1984.
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