Fred L. Whipple

SMITHSONIAN ASTROPHYSICAL OBSERVATORY

HARVARD COLLEGE OBSERVATORY Cambridge 38, Massachusetts

BIOGRAPHICAL DATA

Fred Lawrence Whipple

Profession: Astronomer

Born: Red Oak, Iowa, 5 November 1906; moved to Long Beach, California, January 1922; to Cambridge, Massachusetts, September 1931.

Son of Harry Lawrence Whipple and Celestia (MacFarland) Whipple.

Education: Long Beach (California) High School, 1923; Occidental College, 1923-24; A.B., University of California at Los Angeles, 1924-27; Ph.D., University of California, Berkeley, 1927-31. Honorary M.A., Harvard University, 1945.

Married Dorothy Woods of Los Angeles, California, 1928; divorced 1935.

1 Son - Earle Raymond.

Married Babette Frances Samelson, Cambridge, Massachusetts, 1946.

2 Daughters - Dorothy Sandra and Laura.

Began career as astronomer in 1927.

Teaching Pellow, University of California, 1927-29.

Lick Observatory Fellow, 1930-31.

Instructor, Stanford University, Summer 1929; University of California, Summer 1931.

Staff Member, Harvard College Observatory, 1931-; in charge of the Oak Ridge Station 1932-37.

Instructor, Harvard University, 1932-38; Lecturer, 1938-45; Associate Professor, 1945-50; Professor, 1950-; Chairman, Committee on Concentration in the Physical Sciences, 1947-49; Chairman, Department of Astronomy, 1949-56.

Research Associate, Radio Research Laboratory, O.S.R.D., 1942-45, in charge of development of Confusion Reflectors, "Window", as a Radar Countermeasure; was sent twice on consulting missions to the United Kingdom and once to Mediterranean Theatre, 1944; "Window" was used extensively by the American Air Force and Naval Air Forces.

- Director, Smithsonian Institution Astrophysical Observatory, 1955- .
- Member Upper Atmosphere Rocket Research Panel, U.S., 1946- .
- Member U.S. National Advisory Committee on Aeronautics, Sub-Committee, 1946-52.
- Member U.S. Research and Development Board Panel, 1947-52.
- U.S. National Committee of the International Geophysical Year Chairman, Technical Panel on Rocketry, 1955-; Member
 Technical Panel on Earth Satellite Program, 1955-;
 Member Working Group on Satellite Tracking and
 Computation, 1955-.
- Member Scientific Advisory Board to U.S.A.F., 1953- .
- Member Advisory Panel on Astronomy to the National Science Foundation, 1952-55, Chairman, 1954-55.
- Delegate to Inter-American Astrophysical Congress, Mexico, 1942.
- Nember of Commission 22, Meteors, Zodissal Light and Analogous Problems, 62 International Astronomical Union, 1946-; President of Commission 22, 1946-52; President of Subcommission on Meteorites, 1955-; Member of Commission 15, Physical Study of the Comets, 1952-; Member of Commission 20, Minor Planets, Gomets and Satellites, 1932-; Member of Commission 34, Interstellar Material and Galactic Nebulae, 1950-; and Member of Commission 36, Spectrophotometry, 1935-1952.
- Voting Representative of U.S.A. in International Astronomical Union, 1952 and 1955.
- Research Associate of the Institute of Meteoritics, University of New Mexico, 1947- .
- Member of Committee on Standardization in the Field of Photography, American Standards Association, 1938-1950.
- Member U.S.A. National Committee of International Scientific Radio Union, 1949- .
- Member of Upper Atmosphere Committee in the Meteorology Section of the American Geophysical Union, 1955- .
- Associate Editor of the ASTRONOMICAL JOURNAL, 1954- .
- Number Editorial Board of ASTROPHYSICAL JOURNAL, 1952-54.
- Editor, HARVARD ANNOUNCEMENT CARDS, 1952- .
- Editor, SMITHSONIAN CONTRIBUTIONS TO ASTROPHYSICS, 1956- .

Active leader of project on Upper-Atmospheric Research via Meteor Photography sponsored by the Bureau of Ordnance, U.S. Navy, 1946-51; and sponsored by the Air Research and Development Command, U.S. Air Force, 1948-, by the Office of Naval Research, 1951-57, and by U.S. Army Office Ordnance Research 1953-57.

Lowell Lecturer, Lowell Institute, Boston, 1947.

Vice-President, American Astronomical Society, 1948-50.

Recipient of Donohue Medals for the independent discovery of six new comets.

Recipient of Presidential Certificate of Merit for scientific work during World War II.

Recipient of J. Lawrence Smith Medal of the National Academy of Sciences for research on meteors, 1949.

Member Pi Mu Epsilon, Phi Beta Kappa, Sigma Xi, American Academy of Arts and Sciences, American Philosophical Society, American Association for the Advancement of Science, American Astronomical Society, American Meteoritical Society, American Geophysical Union, American Meteorological Society, The New York Academy of Sciences, Astronomical Society of the Pacific, and Solar Associates.

Author: EARTH, MOON AND PLANETS, Blakiston Company, 1942; scientific papers on Orbits of Comets, Asteroids and Meteors; Spectrophotometry of Cepheid Variable Stars, Novae and Supernovae; Colors of External Galaxies; Planetary Nebulae; Earth's Upper Atmosphere and Nature of Meteors by two-camera photographic method; Interstellar Medium; Stellar and Solar-System Evolution; Theory of Comets; various subjects in the Encyclopedia Brittanica; various popular articles on astronomical subjects.

Office: Harvard College Observatory or Smithsonian Astrophysical Observatory, 60 Garden Street, Cambridge 38, Massachusetts.