

Dr. Robert Benson

Dr. Robert Benson's main research interests are in linear and nonlinear plasma wave phenomena, ionospheric and magnetospheric physics, and planetary radio emissions. His approach has been to use the terrestrial ionosphere and magnetosphere as a space plasma laboratory. This system is the most readily accessible space plasma for cost-effective high-resolution in situ and remote investigations and some of the processes operating there have similar counterparts elsewhere in astrophysical plasmas. This research has been mainly based on the analysis of data from ionospheric topside sounders on the Alouette and ISIS satellites, passive receivers on ISSE 3, the low-power sounder (relaxation sounder) on the Ulysses spacecraft, and the bi-static sounder on the joint Canadian/US OEDIPUS C sounding-rocket experiment. Dr. Benson is leading an effort to produce digital records from a selected portion of the original Alouette/ISIS analog telemetry tapes. He is also a participating scientist on the IMAGE mission (Imager for Magnetopause-to-Aurora Global Exploration). Dr. Benson received his B.S. in Geophysics and M.S. in Physics from the University of Minnesota. He has a Ph.D. in Geophysics from the University of Alaska (1963). Dr. Benson was an IGY (1956-1958) Research Scientist in Antarctica. He joined NASA/Goddard Space Flight Center in 1964 as an NRC postdoctoral research associate and has been a NASA/GSFC Space Scientist since 1965. From 1984 to 1994, he served as Chair of the US National Committee for URSI Commission H and Chair of the International URSOI Commission on Waves in Plasmas (1990-1993). Dr. Benson is currently an emeritus researcher at NASA's Goddard Space Flight Center.