Ronald J. Chase received the B.S. in Electrical Engineering and M.S. in Physics from the University of Maryland in 1970 and 1975, and a Professional degree in Electrophysics from the George Washington University in 1988.

He joined the Army's Harry Diamond Laboratory (now the Army Research Laboratory - ARL) in 1975 where he worked as a research scientist for 26 years. His early years at the lab involved the assessment and hardening of Department of Defense communication assets to High Altitude Electromagnetic Pulse, and included several years as the field test director at the Generic Verification Facility at the ARL Woodbridge installation. He participated in several multidisciplinary programs including studies of the reliability of the Public Switched Network for National Communications Systems, and the environmental assessment of the ARL Woodbridge facility. His later years at the lab included working to establish a radar signature prediction capability employing the best national electromagnetic codes supported by the Army's High Performance Computing assets.

He joined the Office of Engineering and Technology (OET) at the Federal Communications Commission in December 2000. His responsibilities included the development of operational rules for Ultra-wideband communications, enhancement of a propagation and telecommunication simulation capability, and modeling to support the development of rules for broadband power line communications. He was appointed by the State Department as the Chair of the U.S. Committee on UWB, and served as Head of the U.S. Delegation to the International Telecommunications Union – Radiocommunications Sector (ITU-R) for Task Group 1/8 on UWB (September 2003 to October 2005). He has held the position of Chief of the Technical Analysis Branch in the Electromagnetics Compatibility Division in OET since February, 2004.

He serves on the Government Executive Committee of the Electromagnetic Code Consortium (EMCC). He is a member of the Institute for Electrical and Electronic Engineers (IEEE), Society for Industrial and Applied Mathematics (SIAM), American Institute of Physics (AIP), American Association of Physics Teachers (AAPT), Mathematical Association of America (MAA), American Physical Society (APS), Amateur Radio Relay League (ARRL), Tau-Beta-Pi, and Eta-Kappa-Nu.