

Space-Borne Radio-Sounding Investigations Facilitated by the Virtual Wave Observatory (VWO)

Robert F. Benson, Shing F. Fung, Dieter Bilitza (George Mason University),
and Leonard N. Garcia (Wyle Information Systems, LLC)

Goddard Space Flight Center, Greenbelt, MD 20771 USA

Xi Shao

University of Maryland, College Park, MD 20742 USA

Ivan A. Galkin

University of Massachusetts Lowell, Lowell, MA 01854 USA

The goal of the Virtual Wave Observatory (VWO) is to provide user-friendly access to heliophysics wave data. While the VWO initially emphasized the vast quantity of wave data obtained from passive receivers, the VWO infrastructure can also be used to access active sounder data sets. Here we use examples from some half-million Alouette-2, ISIS-1, and ISIS-2 digital topside-sounder ionograms to demonstrate the desirability of such access to the actual ionograms for investigations of both natural and sounder-stimulated plasma-wave phenomena. By this demonstration, we wish to encourage investigators to make other valuable space-borne sounder data sets accessible via the VWO.