Radio Propagation Prediction Services using the Computer Communications

S. Bae and K. Wee
Radio Research Laboratory, Korea

An introduction of radio propagation prediction services through telecommunication network (PSTN) with personal computer, which was originally done through postal mail services, is presented in this paper. The HF radio prediction software has been developed for users who use their own IBM compatible PCs or network terminals, which will provide a convenient way for users to select their requirements in real-time with Windows environment. The HF radio prediction software, with the observational database of the ionospheric condition and the input parameters of users, calculates the correct point-to-point frequency to meet the users' needs and displays the results by drawing the nomogram. This information can be printed out or saved. About 150 domestic and international organizations receive postal mail services of the HF radio propagation predictions for the improved utilizaton of HF radio communications since its beginning in 1966. This service will be upgraded by using the PC communication network in 1995, which will give more accurate and reliable information to the users. The importance of the HF radio communication has decreased recently, which in turn results in the decrease of the use of the utilization of HF radio prediction services. However, the computer communication services can be used by amateur radio operators, marine radio officers, emergency services and many others. Also, the increase in number of users and fields is expected due to the expansion of the HF radio frequency band by WARC-92. Especially, the computer communication services of the Space Environment Forecast which will start in 1998 can be highly utilized by the satellite operators and other general users.