
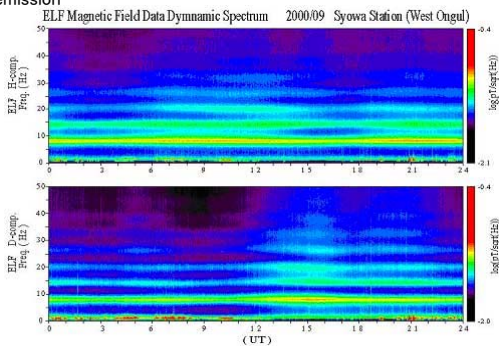


<b>[Title]</b>	1-100Hz ULF/ELF Electromagnetic Wave Observation
<b>[Sub-Title]</b>	
<b>[Observation Period]</b>	2000~present
<b>[Observation Photo]</b>	
<b>[Data Summary]</b>	This instrument was installed by JARE-41 in 2000 to observe the electromagnetic waves in 8-60 Hz named Schumann resonances, which is excited by the global lightning discharges. The search coil magnetometer and ELF amplifier are deployed at the West Ongul telemetry station. The transferred data are recorded in a personal computer with a sampling rate of 400 Hz continuously and stored to a hard disc drive (HDD). The data stored in HDD are also transferred to NIPR via Intelsat satellite network.
<b>[Data Name]</b>	1-100Hz ULF/ELF Electromagnetic Wave Observation Data
<b>[Data Location]</b>	Syowa Station
<b>[Data Format]</b>	digital data
<b>[Data Period]</b>	2000~present
<b>[Data Recording / Acquisition Sampling]</b>	continuously, 400Hz
<b>[Observation Instruments]</b>	search coil magnetometer, horizontal 2 components
<b>[Data Publication]</b>	<a href="http://edac.geophys.tohoku.ac.jp/">http://edac.geophys.tohoku.ac.jp/</a>
<b>[Data Sample]</b>	<p>(Figure Title) North-south (upper) and east-west (lower) components of the ULF/ELF emission</p> 
<b>[Data Center (Contact Person)]</b>	Tohoku Univ. (Yukihiro Takahashi), RIKEN (Mitsuteru Sato)
<b>[e-mail]</b>	yukihiro@pat.geophys.tohoku.ac.jp . mitsu-sato@riken.jp
<b>[Related Organization]</b>	
<b>[Scientific Results / Publication]</b>	<p>Sato, M. and Fukunishi, H. (2005): New evidence for a link between lightning activity and tropical upper cloud coverage. <i>Geophys. Res. Lett.</i>, 32(12), L12807, doi:10.1029/2005GL022865.</p> <p>Adachi, T., Fukunishi, H., Takahashi, Y., Sato, M., Ohkubo, A. and Yamamoto, K. (2005): Characteristics of thunderstorm systems producing winter sprites in Japan. <i>J. Geophys. Res.</i>, 110(D11), D11203, doi:10.1029/2004JD005012.</p> <p>Price, C., Greenberg, E., Yair, Y., Satori, G., Bor, J., Fukunishi, H., Sato, M., Israelevich, P., Moalem, M., Devir, A., Levin, Z., Joseph, JH., Mayo, I., Ziv, B. and Sternlieb, A. (2004): Ground-based detection of TLE-producing intense lightning during the MEIDEX mission on board the space shuttle Columbia. <i>Geophys. Res. Lett.</i>, 31(20), L20107, doi:10.1029/2004GL020711.</p> <p>Adachi, T., Fukunishi, H., Takahashi, Y., Sato, M. (2004): Roles of the EMP and QE field in the generation of columniform sprites. <i>Geophys. Res. Lett.</i>, 31(4), L04107, doi:10.1029/2003GL019081.</p> <p>Sato, M. and Fukunishi, H. (2003): Global sprite occurrence locations and rates derived from triangulation of transient Schumann resonance events. <i>Geophys. Res. Lett.</i>, 30(16), 1859.</p> <p>Su, H.T., Hsu, R.R., Chen, A.B., Wang, Y.C., Hsiao, W.S., Lai, W.C., Lee, L.C., Sato, M. and Fukunishi, H. (2003): Gigantic jets between a thundercloud and the ionosphere. <i>Nature</i>, 423, 974-976.</p> <p>Sato, M., Fukunishi, H., Kikuchi, M., Yamagishi, H. and Lyons, W.A. (2003): Validation of sprite-inducing cloud-to-ground lightning based on ELF observations at Syowa station in Antarctica. <i>J. Atmos. Solar-Terr. Phys.</i>, 65(5), 607-614.</p>