

MSD030-05

Room: Function Room B

Time: May 28 10:00-10:15

A new proposal for the small scientific satellite: ELMOS Constellation

Tetsuya Kodama^{1*}, Koichiro Oyama², Makoto Suzuki¹, Yasuhide Hobara³

¹Japan Aerospace Exploration Agency, ²National Cheng Kung University, ³University of Electro-Communications

ELMOS constellation is a new proposal for the small scientific satellite program of ISAS/JAXA. ELMOS constellation is composed of 200kg-class small satellite and four 50kg-class microsattellites. All the satellites carry electron temperature probe, impedance probe and GPS occultation receiver and its main objective is to observe time-space variation of physical values of the ionosphere-atmosphere region.

ELMOS constellation also aims to accumulate reliable results of pre-seismic ionospheric perturbation based on the reliable ionospheric model.

http://www.geocities.jp/ELMOS_WG/

References

Oyama, K.-I., Y. Kakinami, J.-Y. Liu, M. Kamogawa, and T. Kodama (2008), Reduction of electron temperature in low-latitude ionosphere at 600 km before and after large earthquakes, *J. Geophys. Res.*, 113, A11317, doi:10.1029/2008JA013367.

Liu, J. Y., et al. (2009), Seismoionospheric GPS total electron content anomalies observed before the 12 May 2008 Mw7.9 Wenchuan earthquake, *J. Geophys. Res.*, 114, A04320, doi:10.1029/2008JA013698.

T. Kodama and K. -I. Oyama, SeismoSTAR: A Proposal for the STAR Program, IRI2009 Workshop, Kagoshima, Japan, November 2-7, 2009

K. -I. Oyama, Y. Kakinami, J. Y. Liu, T. Kodama and C. Y. Chen, Micro/Mini Satellites for Earthquake Studies -Toward International Collaboration-, *Advances in GeoSciences*, in press

Keywords: small scientific satellite, ELMOS, constellation, ionosphere, GPS occultation, Seismo-Electromagnetic