


Report of the STEL optical observation at the Tromsø EISCAT radar site by March 2013 and the contributions to EISCAT_3D

Shin-ichiro Oyama^{1*}, Satonori Nozawa¹, Ryoichi Fujii¹, Kazuo Shiokawa¹, Yuichi Otsuka¹, Takuo Tsuda², Toru Takahashi¹

¹Solar-Terrestrial Environment Laboratory, Nagoya University, ²National Institute of Polar Research

Solar-Terrestrial Environment Laboratory (STEL) has been operating various kinds of optical instruments for more than 10 years at the Tromsø EISCAT (European Incoherent Scatter) radar site in Norway (69.6°N, 19.2°E), which is one of the state-of-art observatories at high latitudes. Five instruments are now in automatic operation regularly from October to March: (1) three-wavelength photometer (427.8 nm, 630.0 nm, and 557.7 nm), which is fixed to look along the magnetic field line, (2) digital camera for monitoring weather and aurora, (3) proton all-sky camera (486.1 nm), (4) multi-wavelength all-sky camera (557.7 nm, 630.0 nm, OH band, 589.3 nm, 572.5 nm, and 732.0 nm), and (5) Fabry-Perot interferometer (557.7 nm, 630.0 nm, and 732.0 nm). The quick looks are available on the web at www.stelab.nagoya-u.ac.jp/~eiscat/data/EISCAT.html. While these instruments are programmatically operated, they have contributed to many campaign observations with the EISCAT radars, rockets, satellites, and other ground-based instruments by adjusting the observation mode. In particular, simultaneous observation with the EISCAT_3D is quite important to give new insights to our understanding of spatiotemporally developments in the auroral ionosphere and thermosphere. This paper reports activity of the optical instruments and planning of the simultaneous observations with the EISCAT_3D.

Keywords: Aurora, Airglow, Optical instrument, Ionosphere, Thermosphere, Polar region



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If you have any questions or comments on DATA, please contact
Dr. Satonori NOZAWA
(nozawa@stelab.nagoya-u.ac.jp) or
Dr. Shin-ichiro OYAMA
(oyama@stelab.nagoya-u.ac.jp)

If you would like to provide feedback on our WEB SITE, please contact
Dr. Shin-ichiro OYAMA
(oyama@stelab.nagoya-u.ac.jp)

Address:
Solar-Terrestrial Environment Laboratory, Nagoya University,
Furocho, Chikusa-ku, Nagoya, Aichi 464-8601,
Japan.

EISCAT Database

Solar-Terrestrial Environment Laboratory, Nagoya University, Japan.



What's New

- ▶ 2010/09/04 [Radar DATA] available DELTA-2 campaign data
- ▶ 2010/09/04 [Radar DATA] available IPY (CP2) data
- ▶ 2010/06/10 [Optical DATA] available statistics of the weather
- ▶ 2009/09/01 [DATA] Archive of the EISCAT data during the DELTA-2

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<http://www.stelab.nagoya-u.ac.jp/~eiscat/data/EISCAT.html>