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## Report of the STEL optical observation at the Tromsoe EISCAT radar site by March 2012

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Solar-Terrestrial Environment Laboratory (STEL) has operated various kinds of optical instruments for more than 10 years at the Tromsoe 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). 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 modes. The quick looks are available on the web at www.stelab.nagoya-u.ac.jp/~eiscat/data/EISCAT.html. This paper reports activity of the optical instruments including the data archive and notable events during some Japanese special programs of the EISCAT radar.

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



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