

**Characteristics of mesospheric gravity waves observed in airglow images over Paratunka, Russia**

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Airglow imager at Paratunka, Russia (53.0N, 158.2E), has started the observations of atmospheric gravity waves in the mesosphere and lower thermosphere (MLT) on August 17, 2007. Airglow emissions near the gumesopause (557.7-nm and OH-Meinel) are imaged every 1.5 min interval with 30 sec and 3 sec exposures, respectively. We have found some typical wave structures in the airglow images and keograms (i.e., time series of horizontal cross-sections of airglow images). Based on long-term imaging observations at several other stations, it has been shown that the wave characteristics have seasonal and geographical dependence, particularly, in propagation directions, because the directions are greatly controlled by wind profiles in the middle atmosphere, locations of the wave sources, and ducting structures in the MLT region. In the presentation, we will report initial results of the gravity waves in the MLT region over Paratunka on 36 clear nights from August 2007 to January 2008.