Atmospheric gravity waves significantly contribute to the wind/thermal balances in the mesosphere and lower thermosphere (MLT) through their vertical transport of horizontal momentum. To date, quite a few studies have reported on horizontal characteristics of the MLT gravity waves, such as wavelength, phase speed, and propagation direction, based on airglow imaging observations at various latitudes. It is considered that a part of the gravity waves propagating upward in the MLT penetrate into the thermosphere/ionosphere and can trigger irregularities there. However, the observational evidence on characteristics of gravity waves propagating from lower atmosphere to MLT is very limited. An all-sky imager of NIPR was operated at Kuehlungsborn, Germany (54N, 12E) in September 2010 and at ALOMAR observatory, Norway (69N, 16E) since October 2010. This imager (named MIDOLI) has five interference filters on a rotating wheel, a fish-eye lens with a 180-degree FOV, and a CCD with 512x512 pixels. In order to investigate the propagation of gravity waves from the lower to the upper atmospheres, we have carried out simultaneous observations with the imager, and lidars (RMR and K lidar of IAP at Kuehlungsborn, RMR lidar of IAP and a Na lidar of CoRA at ALOMAR); the imager observes horizontal structure of the gravity waves in the MLT and lidars offer the signatures of vertical propagation in 30-85 km (RMR lidar), and 80-105 km (K and Na lidars) altitudes. In the presentation, we will report the initial results of the coordinated observations.