

All-sky measurements of short period waves imaged in the near infrared OH at Yakutsk

P.P. Ammosov, G.A. Gavrilyeva and M.D. Nogovitsin (*Institute of Cosmophysical Research and Aeronomy, 31 Lenin Avenue, 677891 Yakutsk, Russia*)

The observations of gravity waves structure in the nightglow emissions with an infrared all-sky imager at the optical station of Maimaga ($\varphi = 63^\circ$ N, $\lambda = 129,5^\circ$ E) were conducted. The data obtained for winter (November - March) in 1998 - 2002 shows, that the most part of waves move in western direction. This suggests that these waves are propagated from the lower atmosphere and filtered in the stratosphere by mean winds. The registered wavelengths vary from 15.4 to 100 km (average value is ~ 40 km), the horizontal phase velocities change from 19 to 166 m/s (average value is ~ 63 m/s) and the estimated periods are in limits $9 \div 90$ min (average value is ~ 17 min). The results are close to the observed ones at middle and low latitudes, with only one difference: the average values of wavelength and propagation phase speed are greater for the same periods. The great wavelength and wave propagation velocities, apparently, are connected with a high activity of waves in subauroral latitudes. Waves with short lengths ($< 17,5$ km) have the same direction of propagation as those with longer wavelength.