

**Observation of a persistent Leonid meteor trail
with an all-sky camera at Mt. Bohyun**

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We observed an unusually persistent meteor trail with an all-sky camera at Mt. Bohyun on November 17, 2001. The all-sky camera system of KORDI has been operated in cooperation with KAO for observations of OH band, Na 5897, OI 6300 airglow emissions from the upper atmosphere since June, 2001. The meteor was first detected with the Na 5897 filter at 04:13 KST, and evolution of its trail was clearly recorded in 6 subsequent all-sky images with no filter until it faded below the detection limit at 04:36 KST. The trail appeared first as an arc-shape near the eastern horizon that subsequently expanded toward zenith in the all-sky images. We interpret the arc-shape trail as a consequence of wind profile whose direction revolves with altitude in the mesosphere due to inertial gravity wave. By fitting trail location in the 6 subsequent images with a wind model, we construct the evolution of the trail in 3-dimensional space. We derive parameters of inertial gravity wave responsible for the wind profile that are needed to explain the observed trail images.