Influence of local weather condition on KSP VLBI measurements

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Since 1995, VLBI measurements using fixed four VLBI stations (Kashima, Koganei, Miura and Tateyama) around the Tokyo metropolitan area have been continually producing data of station positions and baseline lengths. Now repeatability of baseline length, which is conventionally defined as a standard deviation of those obtained by five continuous sessions, reaches about a 2-mm level in baseline length in our VLBI network. The repeatability, however, tends to be degraded in summertime. To investigate the cause of this degradation, correlation relations between baseline lengths and the daily averages of temperature, pressure, humidity, wind direction, and wind speed at stations are investigated

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