Analyses on precipitable water vapor from GPS data in Thailand

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The GPS measurements have been performed from GAME-T project time. We processed their data to obtain the precipitable water vapor (PWV) at Bangkok, Chiang Mai, KogMa (in the mountain area near Chiang Mai), Khon Kaen, and Phuket from 2001 to 2007.

We can see a significant difference in PWV between dray season and wet season except Phuket. In the low area such as Bangkok, PWV is about 60 mm in the wet season and it is about 30mmin the dry season, and in the mountain area such as KogMa, they are about 40mm and 10mm respectively.

PWV was rather high in the early dry season in 2002 and 2005 all over Thailand.

We also study the relationships between PWV and air pressure. In the dry season they have positive relationship.

We also tried to determine the onset and offset dates from PWV data. The result shows more agreeable dates than those determined from precipitation data. It means that the PWV data can be used to determine the dates of onset and offset of the wet season.