

## 木星ヘクトメータ電波の発生特性の再考

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## Reconsideration of source characteristics of Jupiter's hectometric auroral radio emission

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It is known that Jupiter's auroral radio emission in the hectometric wave range (HOM) shows two type occurrence components. One is a component relating to solar wind variations (sw-HOM) appearing around CML (Central Meridian system III Longitude of an observer)  $\sim 180$ deg when solar wind pressure enhances. The other one is generally more intense than sw-HOM and has no or weak relation with solar wind variations (nsw-HOM) appearing around CML  $\sim 110$ deg and  $\sim 280$ deg for major components when  $De$  (Jovicentric declination of an observer)  $\sim 1$ deg (Nakagawa et al., 2000; Nakagawa, 2003). The nsw-HOM is thought to be generated by some internal processes initiated by the rapid planetary rotation and massive magnetospheric plasma, however precise source processes have not been revealed well.

We have reanalyzed occurrence characteristics of HOM using the WIND/WAVES data to investigate precise relation between occurrence of nsw-HOM and Jupiter's magnetospheric variations, such as plasma and magnetic field variations observed by the Galileo Jupiter orbiter and variations of Iogenic volcanic gases/plasmas obtained from the Earth based observations. As a preliminary result, a minor component of the nsw-HOM appearing around CML  $\sim 340$ deg likely relates to magnetic reconfiguration events occurred in the Jovian outer magnetosphere, and enhancement of the major nsw-HOM sometimes lasts for more than a few days seemingly without relation to the magnetospheric variations (and also solar wind variations). In the presentation, we will show the precise occurrence characteristics of HOM and discuss their possible source processes including a comparison study of HOM with Jupiter's auroral appearance nature.

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