

## Diurnal and intraseasonal lightning activities over the western maritime continent during the pre-YMC observations in 2015

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Lightning activities over the western Indonesian maritime continent are investigated by using worldwide lightning location network (WWLLN) data for the pre-YMC observations in 2015 (November-December, 2015).

As described in previous studies, diurnal cycle of lightning with clear island-sea contrast is predominant over the region. Frequent lightnings are observed in the mountainous region of Java/Sumatra in the afternoon/evening, whereas the night/early morning lightnings are predominant in the off coastal region of southern Sumatra and Malacca straight. Intraseasonal lightning variations with the phases of MJO convection are also observed. In the inactive (active) phase of MJO convection over the maritime continent, lightnings are more active in the western (eastern) side of the steep mountains of Sumatra under low-level easterly or weak (westerly) wind conditions.

We will discuss a link among the temporal/spatial variations of lightning activities, atmospheric stability and development of convective cloud system in the coastal region of Sumatra by using the in situ sounding and radar observation data.