

Postnoon aurora spot and poleward-drifting multiple arcs

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To understand when and how the postnoon aurora spot is created, we examined data from the all-sky imager installed in Longyearbyen, Svalbard. From the detailed examination of the data obtained during two winter seasons (2013-2014, and 2014-2015), we have found that the postnoon aurora spot consists of poleward-drifting multiple arcs, which happened at intervals of about 2 min. In some events, each poleward-drifting arc distorts into a folding structure at the final stage of the poleward drift, and becomes even brighter. We report the characteristics of the occurrence and motion of the poleward-drifting arcs, and discuss what is important for the creation of the postnoon aurora spot.

Keywords: High-latitude ionosphere, postnoon aurora spot, auroral arc, all-sky imager