

SESSION: Solar Wind, Magnetosphere, Ionosphere II

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Steve: The optical signature of subauroral ion drifts

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The initial publication on the newly coined space physics phenomenon, Steve, suggests it to be associated with subauroral ion drifts (SAID) [MacDonald et al. 2018]. We expand on this case study by identifying 8 occurrences of Steve with coincident or near-coincident measurements from the Swarm satellites; we find evidence of SAID for all 8 cases. For those cases in which coincident Swarm measurements are available, the SAID observed are unusually intense when compared to the typical SAID seen by the Swarm satellites.