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## Assessment of Swarm ionospheric flow measurements by inter-satellite comparisons

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We present recent results from a preliminary inter-satellite comparison of ionospheric flow measurements from the European Space Agency Swarm mission. Swarm consists of three identical satellites in near-polar circular orbits in the topside F region ionosphere. Each spacecraft carries a set of two orthogonal thermal ion imagers designed to measure full ion flow vectors twice per second. The thermal ion imagers are beset by a measurement anomaly caused by water contamination, which has precluded routine automated determination of ion flows. An extensive experimental campaign to understand and fix the anomaly has revealed several mitigation strategies that enable daily operations that return high quality scientific flow data. The aim of the present work is to assess the validity of these flows by comparing similar measurements from the different satellites. Preliminary results reveal both highly correlated ion flows, as well as intriguing differences suggestive of spatial-temporal inhomogeneities, as determined with pairs of the Swarm satellites.

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