



A comparative study of the topside scale height behavior determined by the topside sounders empirical model and space- based experimental techniques

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Recently, an empirical model of the topside ionosphere scale height was developed, based on the vertical electron density profiles from the topside sounders onboard Alouette and ISIS satellites. The aim of this paper is to compare the scale height determined by the topside sounders model and the O⁺ scale height model (at 400 km) based on CHAMP satellite measurements. The comparison will lead to significant results concerning the behavior of the topside scale height with LT, season, geomagnetic latitude and the level of the geomagnetic activity.