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Dumping of auroral kilometric radiation caused by HF heating facility

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We have use measurements of electromagnetic waves and plasma onboard of INTERBALL-2 satellite during joint experiment with Tromso HF heating facility. During the selected event the satellite crossed magnetic flux tube with a footprint at the ionosphere above heater. It was found significant dumping of AKR few minutes after the pumping was switched on. The most prominent dumping was detected at high frequency AKR (500-600 kHz) which were emitted at the height of 2-3 thousands km. Two possible mechanisms of this phenomenon are discussed: (i) reflection AKR from the region with increased electron density and (ii) suppression emission by decrease efficiency of the source caused up going plasma from the heated ionosphere.