# EXCITATION OF IONOSPHERIC ALFVEN RESONATOR BY ARTIFICIAL MAGNETIC PULSATIONS.

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On November 19, 1998, time interval 15.30-17.30 UT, experiment on generation of artificial magnetic pulsations in Pc1 frequency range has been carried out. The pump wave has been modulated with three frequencies being 1, 2 and 3 Hz; each modulation frequency was used for 5 minutes. The heating wave frequency was 5.423 MHz, for three modulation cycles the pump wave polarisation was Ordinary (o-mode) and then for one cycle was changed to eXtraordinary (x-mode). Clear ionospheric response is observed during first hour of the heating at 180-km distance by induction magnetometer. Very interesting feature of the ULF emissions at 1 Hz is seen for time interval 16.20-16.25 UT: pulsation amplitude was significantly increased especially in D-component. EISCAT radar electron density and electric field measurements do not show any changes in the ionosphere for this interval. However, natural pulsations of decreasing frequency mark the resonance frequency of Ionospheric Alfven Resonator (IAR) before this modulation cycle. It seems to be around 1 Hz and the growth of the artificial pulsation intensity observed on the ground may be explained in terms of the IAR eigenmode excitation.