

CORRESPONDENCE BETWEEN NOCTILUCENT CLOUDS AND PMSE OBSERVED BY PARTIAL REFLECTION RADAR

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Visual, photographic and television observations of noctilucent clouds (NLC) over the partial reflection MF radar at Tumanny (69.0 N, 35.7 E) on 2.6-2.7 MHz have been observed during August 1999 and July - August 2000 from Uмба (Kola peninsula), Lekhta (Karelija) and Lycksele (Sweden). Nine events of NLC appearances of duration from 20 minutes to several hours were recorded. In all these cases the NLCs entail the strong reflection of radar radiowave from 83-86 km. The considerable depressions of electron concentration, "bite outs", are seen in the upper part of PMSE.

The ionosonde data in Loparskaya (68.6 N, 33.3 E) during NLC appearance are discussed. Analys of digital ionograms have shown that in the moment of appearance of PMSE and noctilucent clouds intensive sporadic E-layers are observed.