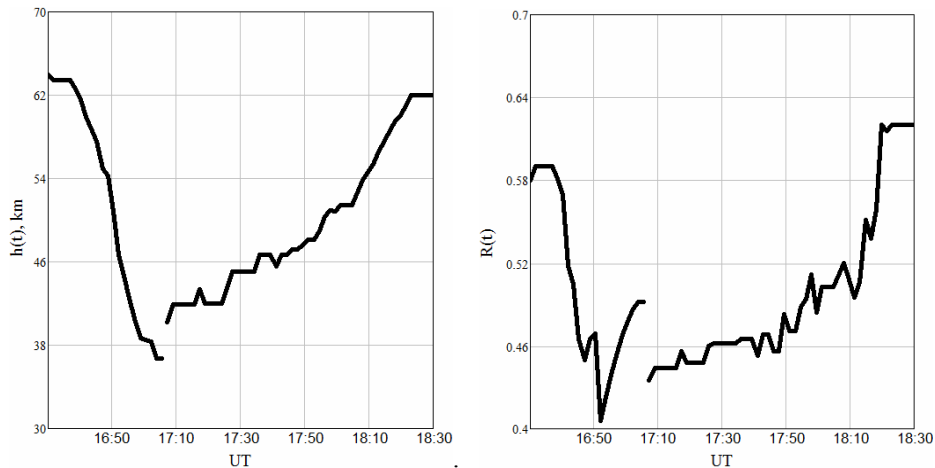


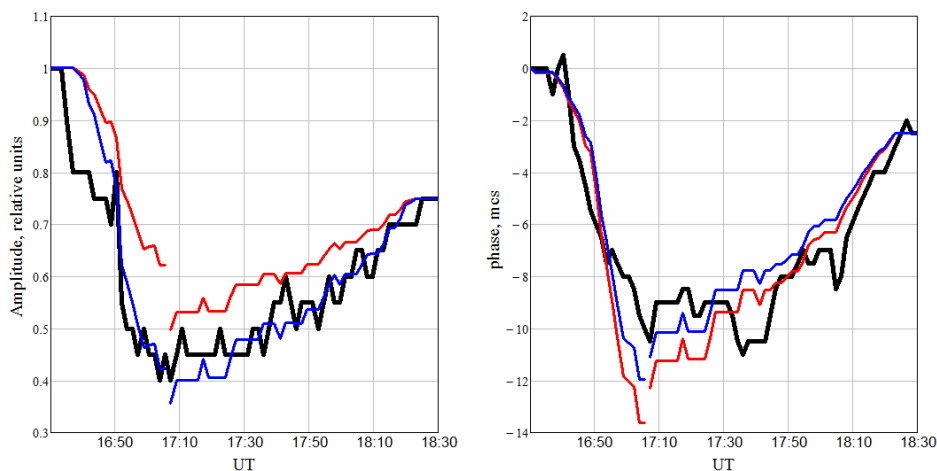
## CORRECTIONS TO THE REPORT "SOUTHERN BOUNDARY OF THE ULTRARELATIVISTIC ELECTRON PRECIPITATION ON MAY 13, 1987", PROC. XXXVI ANNUAL SEMINAR "PHYSICS OF AURORAL PHENOMENA", APATITY, PP. 163 - 165, 2013

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The pointed report contains a mistake. All experimental phase variations were accidentally multiplied by 2. Solutions of the VLF problem of first and second kind for true input data are presented on Fig. 1 and Fig. 2 below. The first part of the disturbance (before 17:00) was gotten in an analysis with positive direction of time and with the determination of the initial values  $h(t_0)$  and  $R(t_0)$ , where  $t_0 = 16:30$  UT. The second part of the disturbance (after 17:00) was gotten in an analysis with negative direction of time and with the determination of the initial values for analysis  $h(t_m)$  and  $R(t_m)$ , where  $t_m = 18:30$  UT. A discrepancy function  $GII(D)$  was minimized relative to the value of  $D$ , distance between the receiver and the southern boundary of a disturbance. The minimum was achieved at the relative distance  $D/S_2 = (26 \pm 5) \%$  and for the latitudes  $(64.5 \pm 1)^\circ$  N correspondingly, were  $S=2497$  km. A discrepancy-function  $GII(D)$ , which contained only phase data, was minimized too, and the corresponding result was practically the same:  $D/S_2 = (23 \pm 5)\%$ ;  $(65 \pm 1)^\circ$  N. Calculations for the discrepancy-function  $GII(D)$ , which contained only the amplitude data, gave the following result:  $D/S_2 = (47 \pm 5)\%$ ;  $(61.5 \pm 1)^\circ$  N.



**Figure 1.** True variations of the effective height  $h(t)$  (left) and the reflection coefficient modular  $R(t)$  (right) of a wave-guide, as functions of universal time (UT) for the auroral radio path Aldra- Apatity.



**Figure 2.** Accuracy of the inverse VLF problem solutions of second kind. Experimental and calculated data are compared. Black line - experimental data; red line - calculated data with optimal value of  $D = 650$  km; blue line - calculated data with optimal value of  $D = 1175$  km (left) and  $D = 570$  km (right)