



## **Upper mantle models for the area of northern Poland from recordings of the permanent seismological stations**

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We have analysed travel times for the stations located in the different tectonic units in north part of Poland. The study is based on data from three Polish stations: Suwalki (SUW) localized on the: East European Craton (EEC), Gorka Klasztorna (GKP) and Czajcze (CZA) located in the region of Paleozoic Platform close to Teisseyre-Tornquist zone. For better documentation of travel times we include some of the German stations and a few stations which are on the way of recorded rays.

We have tested arrivals of first impulse seismic waves from the events located in the offset range 600 – 3000 km. All earthquakes have been selected with magnitude larger than 4.0 and with hypocentral depth no more then 35 km for period of 1996 – 2006. We mainly use events from south-east direction ( e.g. Turkey, Greece). The rays above mentioned recorded by stations run subparallel to the boundary between platforms.

From these data we find that the seismic waves recorded below SUW are characterized by the velocity of 8.6 km/s. From the other stations we observe the velocity of 0.4-1.0 km/s higher than below SUW.

We have tested these observations by 1-D and 2-D modeling. We present preliminary interpretation of this data.