ALPASS TELESEISMIC TOMOGRAPHY - STATUS REPORT

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ALPASS (Alpine Lithosphere and Upper Mantle Passive Seismic Monitoring) is a passive seismic monitoring project aiming to reveal the structure of the lower lithosphere and upper mantle beneath the Eastern Alps and their neighbouring tectonic provinces. It was launched to extend the seismic models from controlled source experiments (CELEBRATION 2000 and ALP 2002) to larger depths. Of particular interest is the structure and dip of subducting lithospheric slabs. The layout of ALPASS was designed to fill the gap between the TRANSALP experiment in the west and two other passive seismic experiments (BOHEMA, Carpathian Basin Project) in the east. By cooperation of Austria, Croatia, Finland, Hungary, Poland and USA 57 temporary seismic recording stations were deployed from May 2005 until May 2006. Data from permanent networks were also collected to improve the coverage of the investigated area. 144 events (50% with $M > 5.6$) from epicentral distances between 30° and 100° were selected for a forthcoming teleseismic inversion. Picking of P-wave arrivals has been done by the application of a semi-automatic correlation technique. Crustal travel time corrections are calculated on the basis of a 3D seismic model which implements the results of CELEBRATION 2000 and ALP 2002. Residual travel time fields were calculated by subtracting the effect of a global reference model and applying crustal corrections. These travel time fields are smooth and show consistent regional anomalies. Therefore we expect significant results from the teleseismic inversion.