



Proposed active-source seismic transects (yellow lines) in the Central American subduction factory. Transects are proposed across the isthmus in Costa Rica, along the arc in Costa Rica, on the Nicaragua Rise, and on the outer rise of the Cocos Plate. The cross-arc transect will involve onshore-offshore shooting from both the Pacific and Caribbean. Explosion refraction data will be recorded on the along-arc and cross-arc transects. Blue squares show proposed OBS positions; green stars onshore show proposed explosions; red and blue triangles show positions of areal array of Refteks for 3D inversion; red triangles are coincident with existing national seismic monitoring network. Yellow triangles show locations of broadband seismometers to be installed by Abers et al. in 2004. Our proposed surveys on the outer rise will complement existing (red lines) and proposed (orange lines) work by GEOMAR and will provide nearly continuous measurements of the hydration state in the downgoing oceanic crust and upper mantle (as reflected in seismic velocities) along the margin.