VieVS Exercise: Estimate the displacement of TIGO

On February 27, 2010, a magnitude 8.8 Earthquake occurred in Chile, close to the city Concepción. In Concepción the TIGO VLBI telescope is located. The telescope survived, although it was not able to observe for about two weeks after the Earthquake.

Your task is to determine if and how much the coordinates of the TIGO telescope was changed by the Earthquake. To do this, you should process two VLBI sessions including the TIGO station: one before and one after the Earthquake. Use for example the sessions 10FEB18XE (R4418) and 10MAR18XE (R4422). By comparing the estimated coordinates of TIGO from the two sessions, the displacement of TIGO can easily be calculated.

Questions:

1. What processing options are appropriate to use for this investigation, especially for the datum definition? Do you use NNT/NNR or do you fix some stations (and in that case which)?
2. How much was TIGO displaced by the Earthquake in the XYZ system?
3. How much was TIGO displaced by the Earthquake in the local NEU system (North, East, Up)?