- 1. There are several small scripts to execute different jobs. But the user doesn't need to worry about them. There is a script named "canWeCombineAll.csh", one only needs to execute that script. It'll call all the other scripts, do all the processing and finally prints out three pdf files for three components separately as record section. Be aware before running the script because it'll finally erase all the files from the current directory and keep only the scripts and pdf files. So, before running, better make a new directory. It will also clean the command window. Save your personal commands before running this script.
- 2. The first script will copy raw data to current directory and process it there. User just needs to change the name of the current directory and the source directory (if applicable).
- 3. In the figure, some plots are looking like merged into another plots. I don't know the reason. I had to sort out some stations when downloading data from IRIS because they were not from TA network even though they were evenly spaced. It also can be because of any bug in my code that I could not figure out.
- 4. *Answer to question number four*: The prime difference between four earthquakes are found in their depth and source to receiver distance.

Name	Depth (km)	~ DIST (km)
Loyalty	1.1	9540
Mexico	35.4	2000
Fiji island	558.9	9880
Western Brazil	633.7	7650

The Loyalty Island's earthquake is the shallowest one and we see the surface waves very clearly in this case but the body waves are not that much dominant.

In case of Fiji earthquake, the body waves are relatively stronger than the surface waves. The high depth is a factor here. This is also true for the Brazil Earthquake. Body waves are stronger and dominant.

In case of Mexico earthquake, again the surface waves are more clearly visible than the body waves because of shallow depth.

So, we can say that the waves that will be dominant depend on the depth of the earthquake source and the distance that the wave travels.