

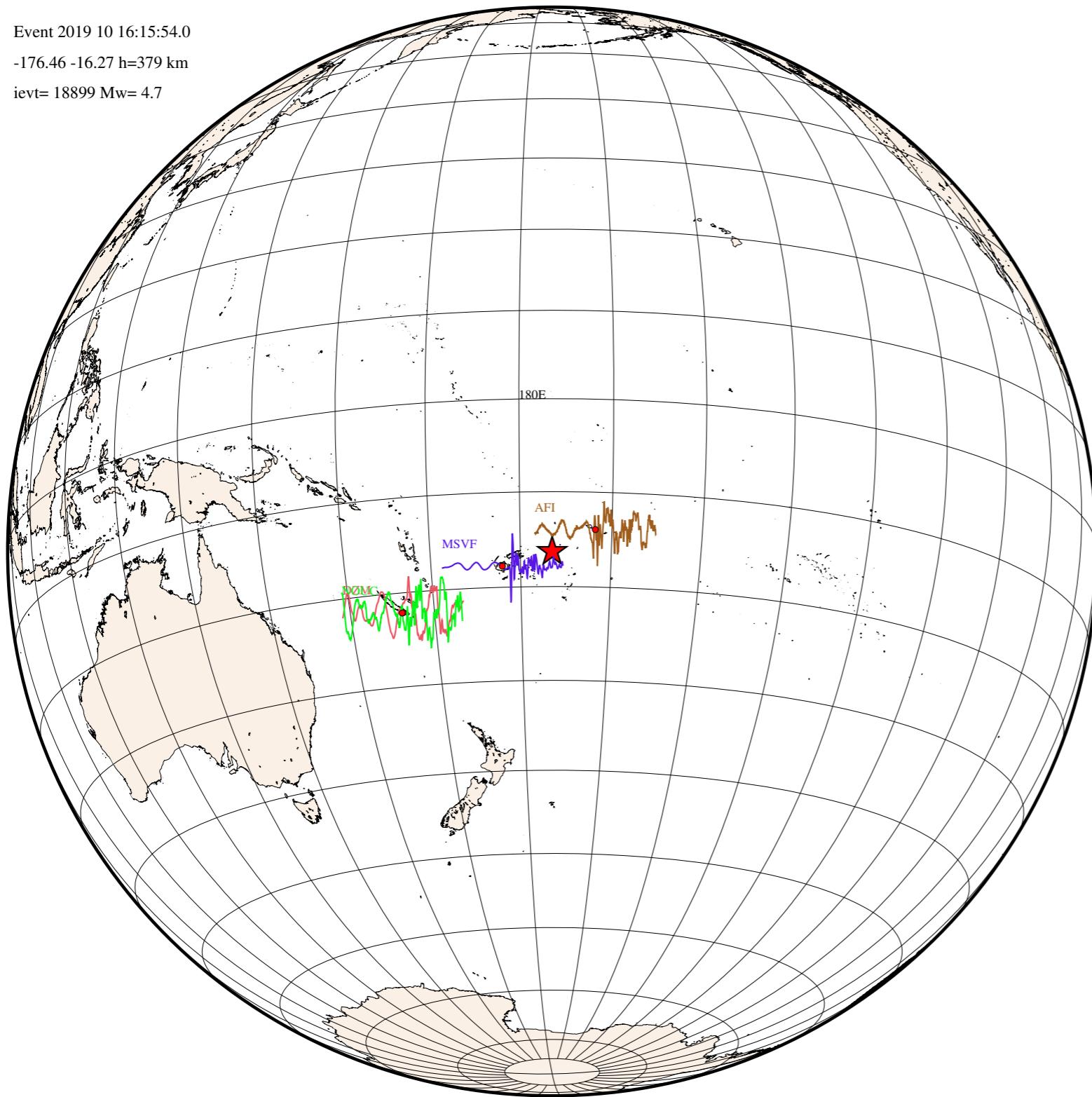
The workhorse

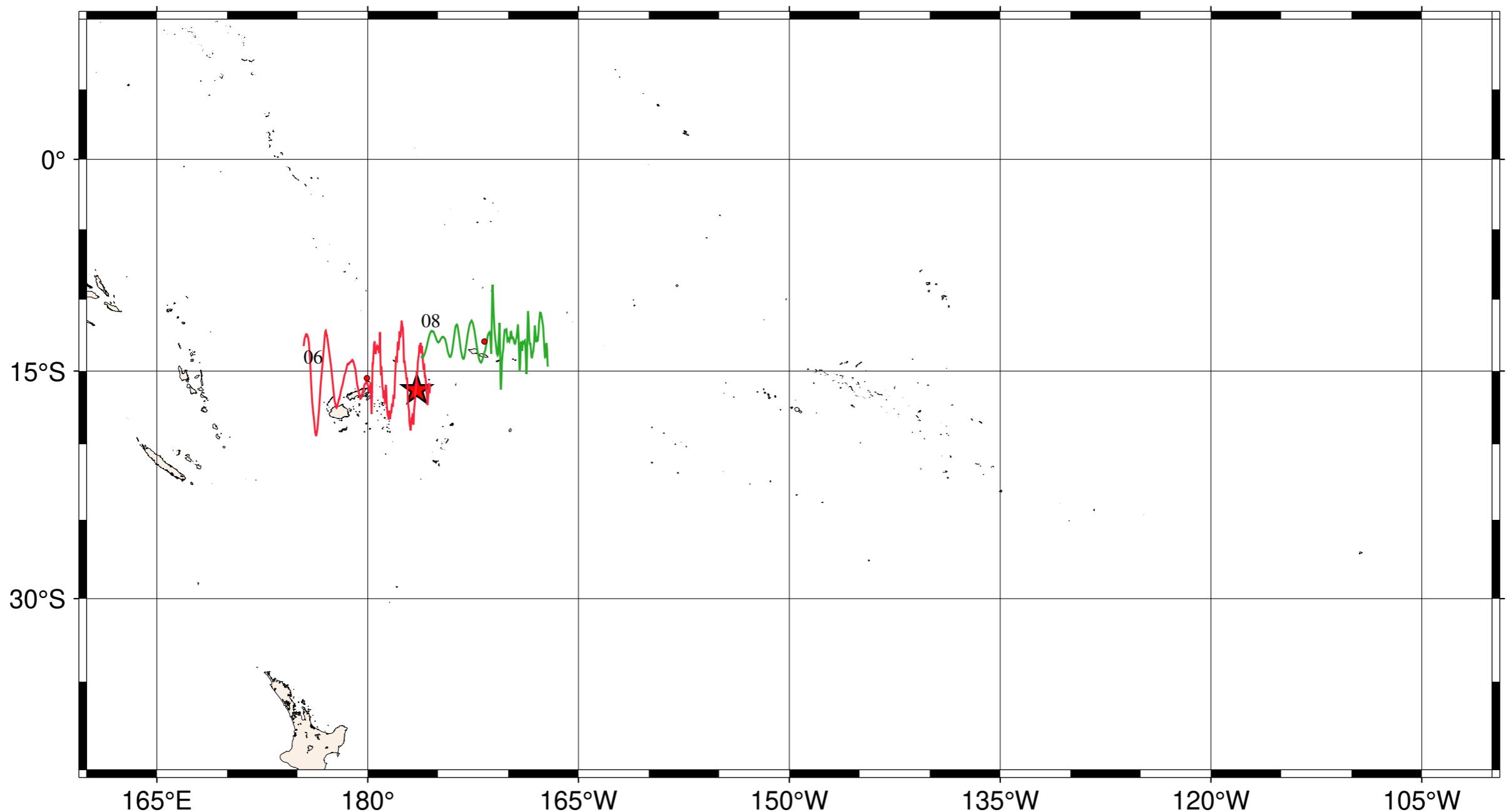
One simple command to do picking:

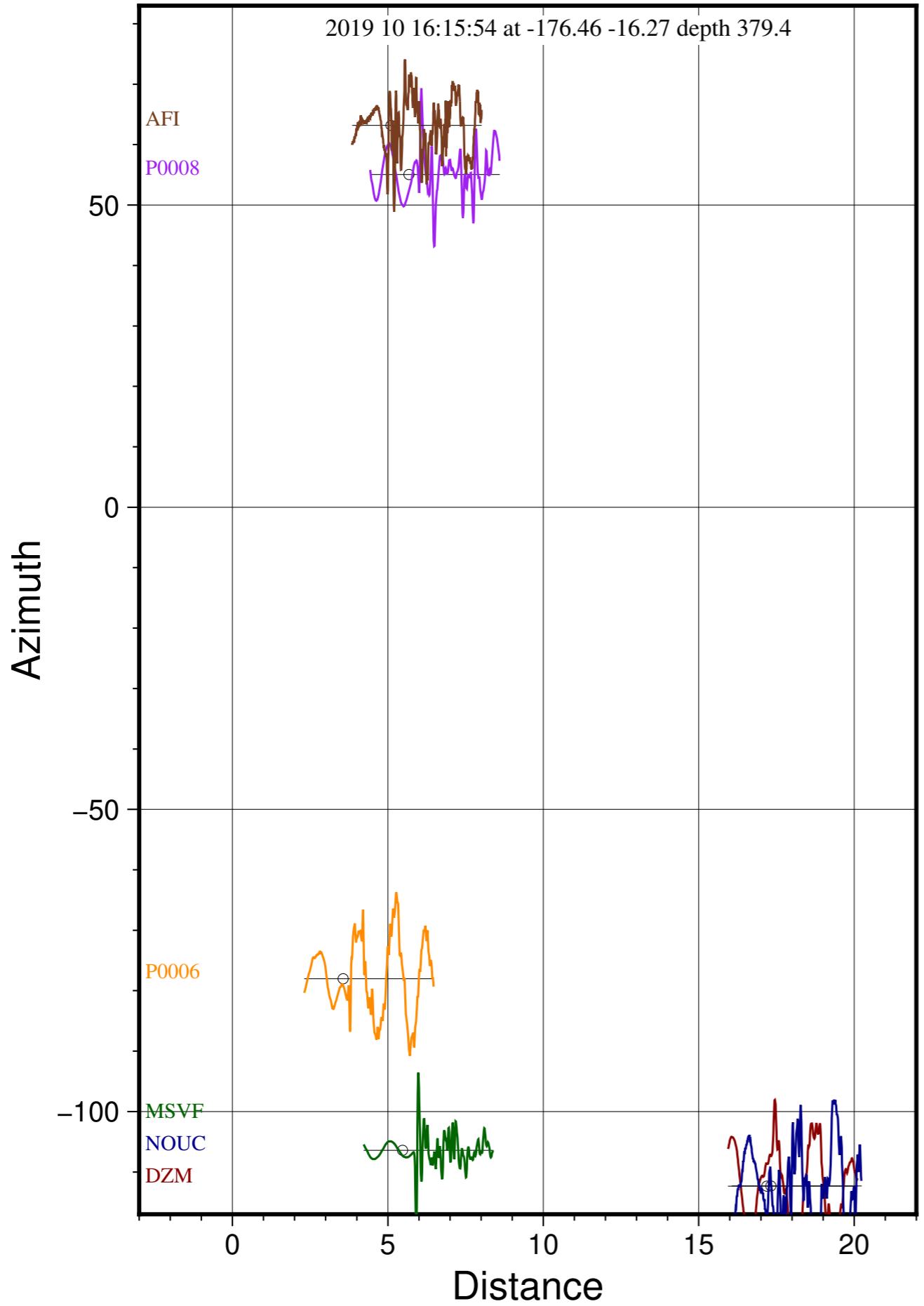
`dopick 2019/20190110/DATA/Q00`

*is incorporated in the program <pnext>
and proceeds through all steps that
otherwise have to be done manually.*

Step 1: Brings up plots – hit <Return> to get the next one

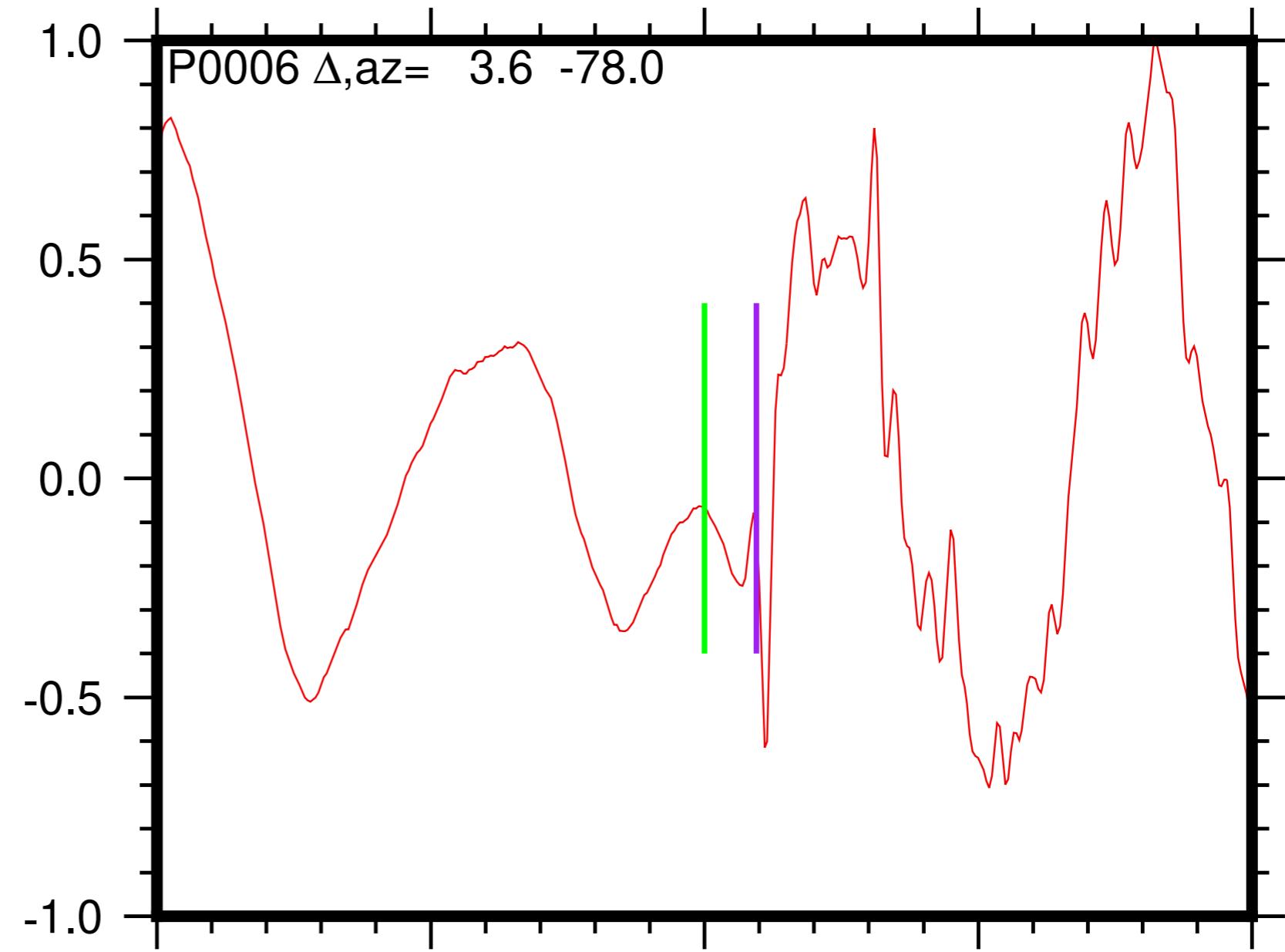
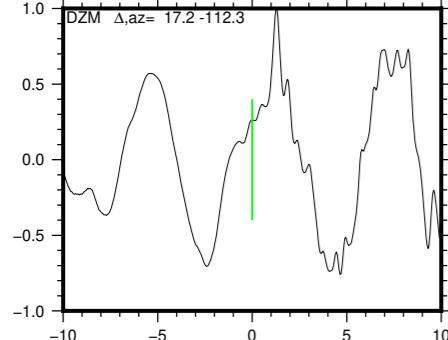
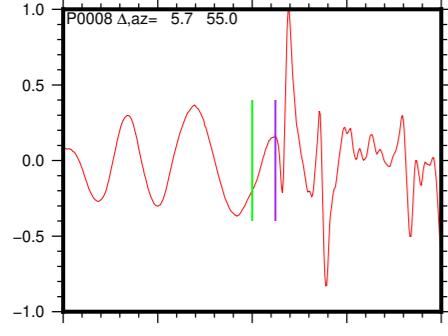
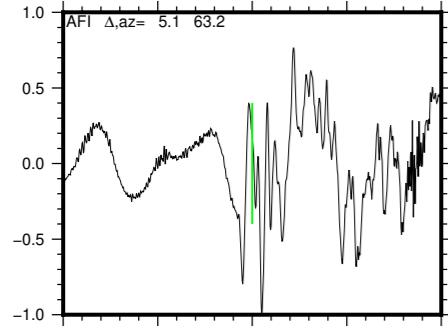
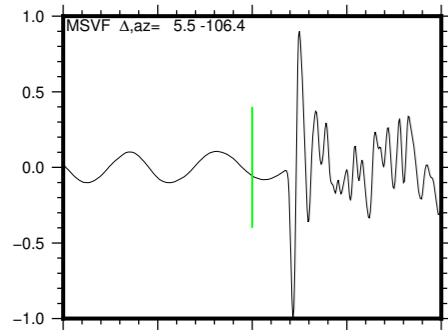
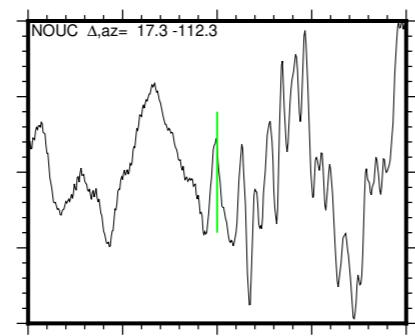
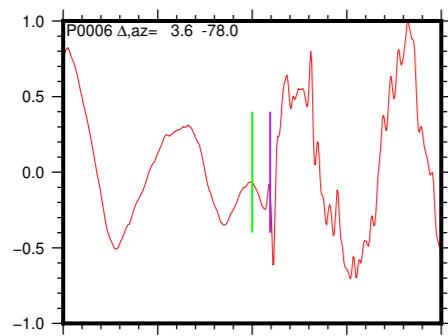




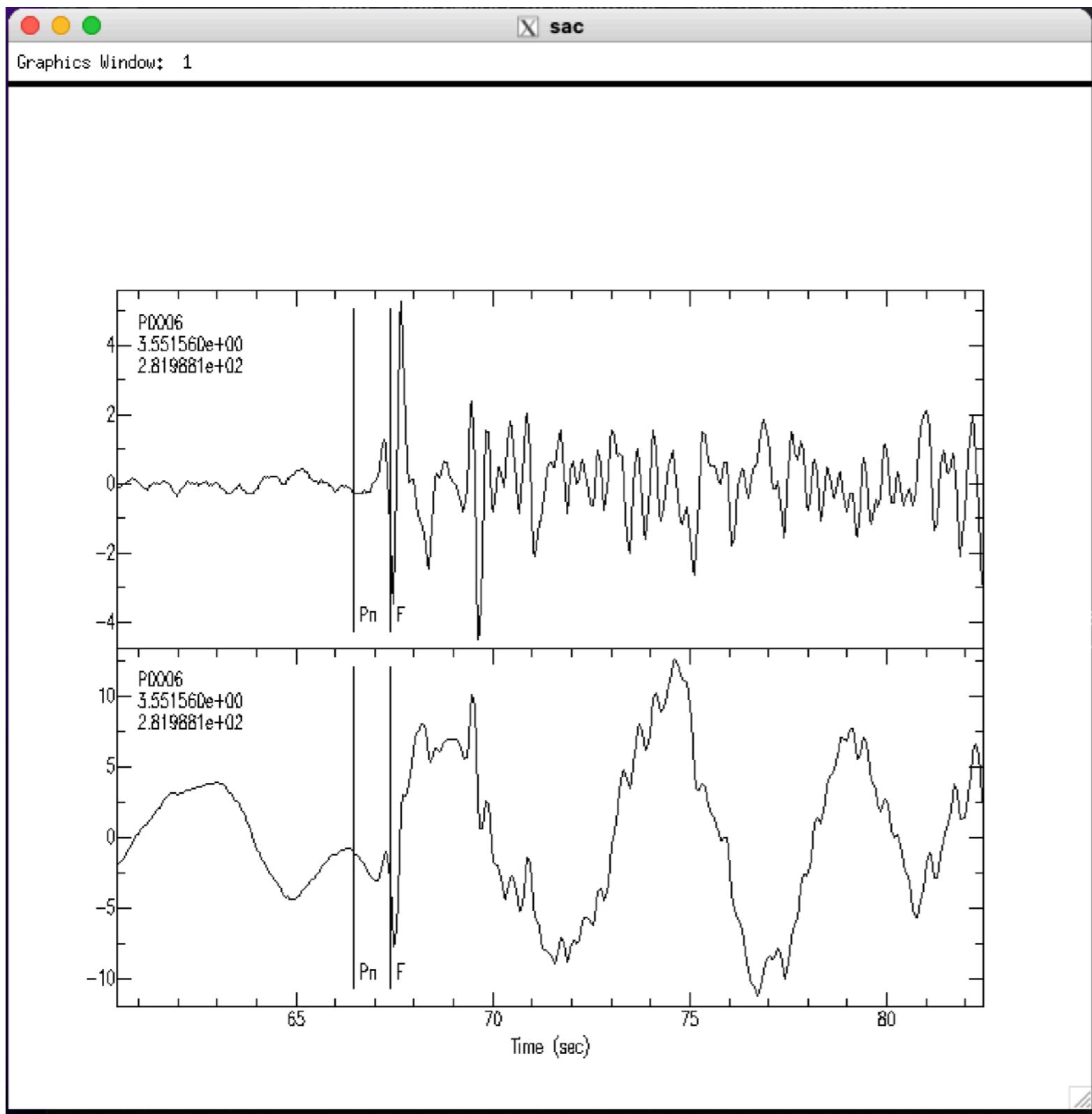


*If moment tensor is available,
this plot also shows polarity*

Pickhelp plots

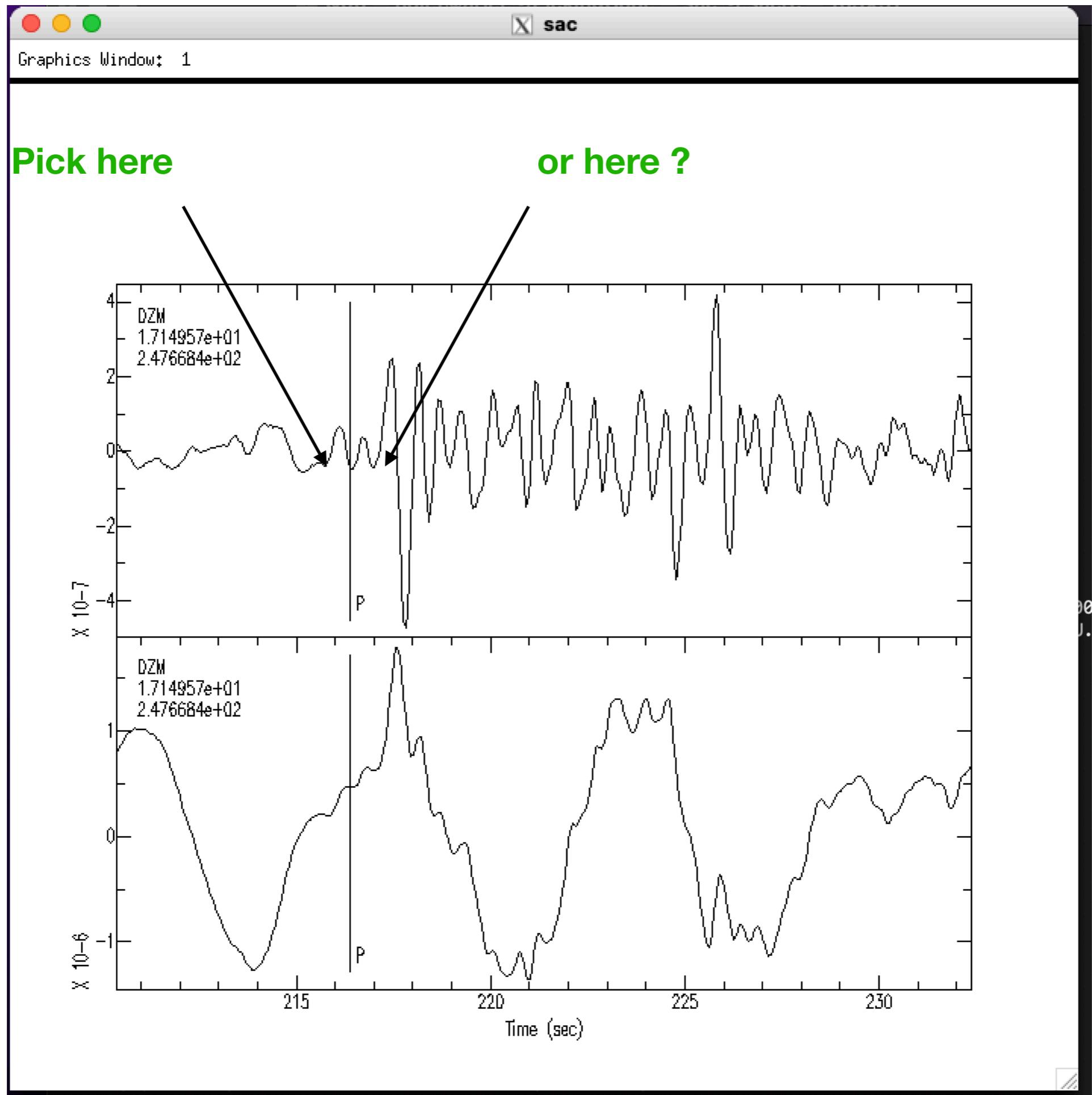


Step 2: Brings up SAC for picking

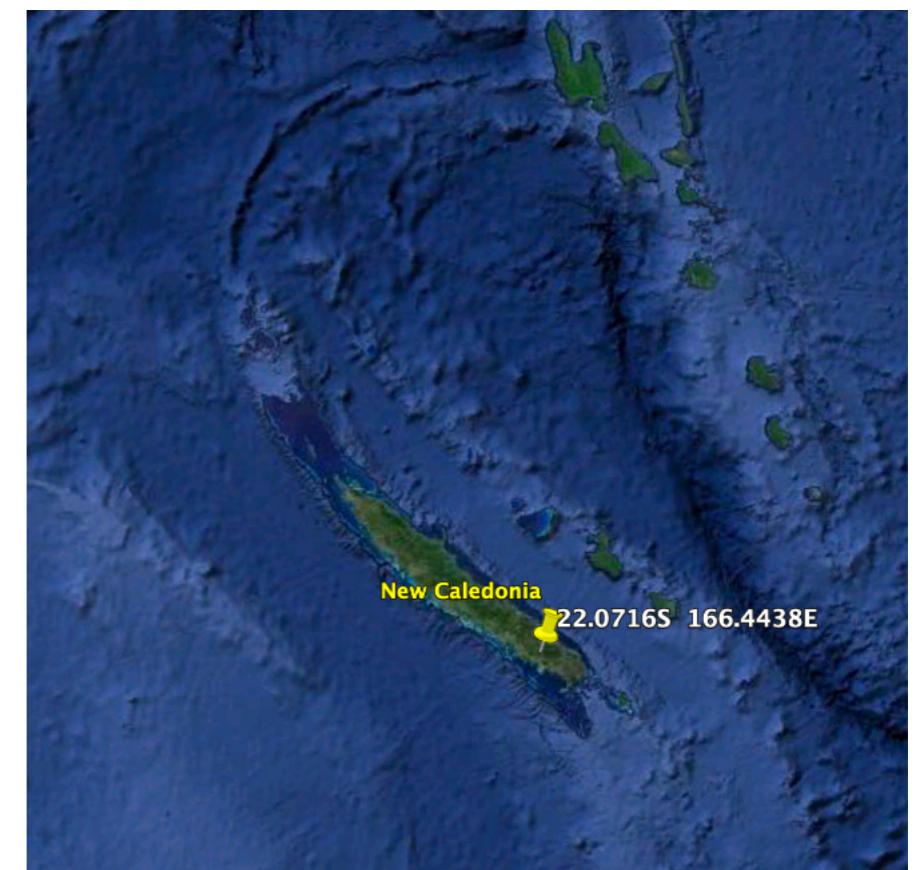
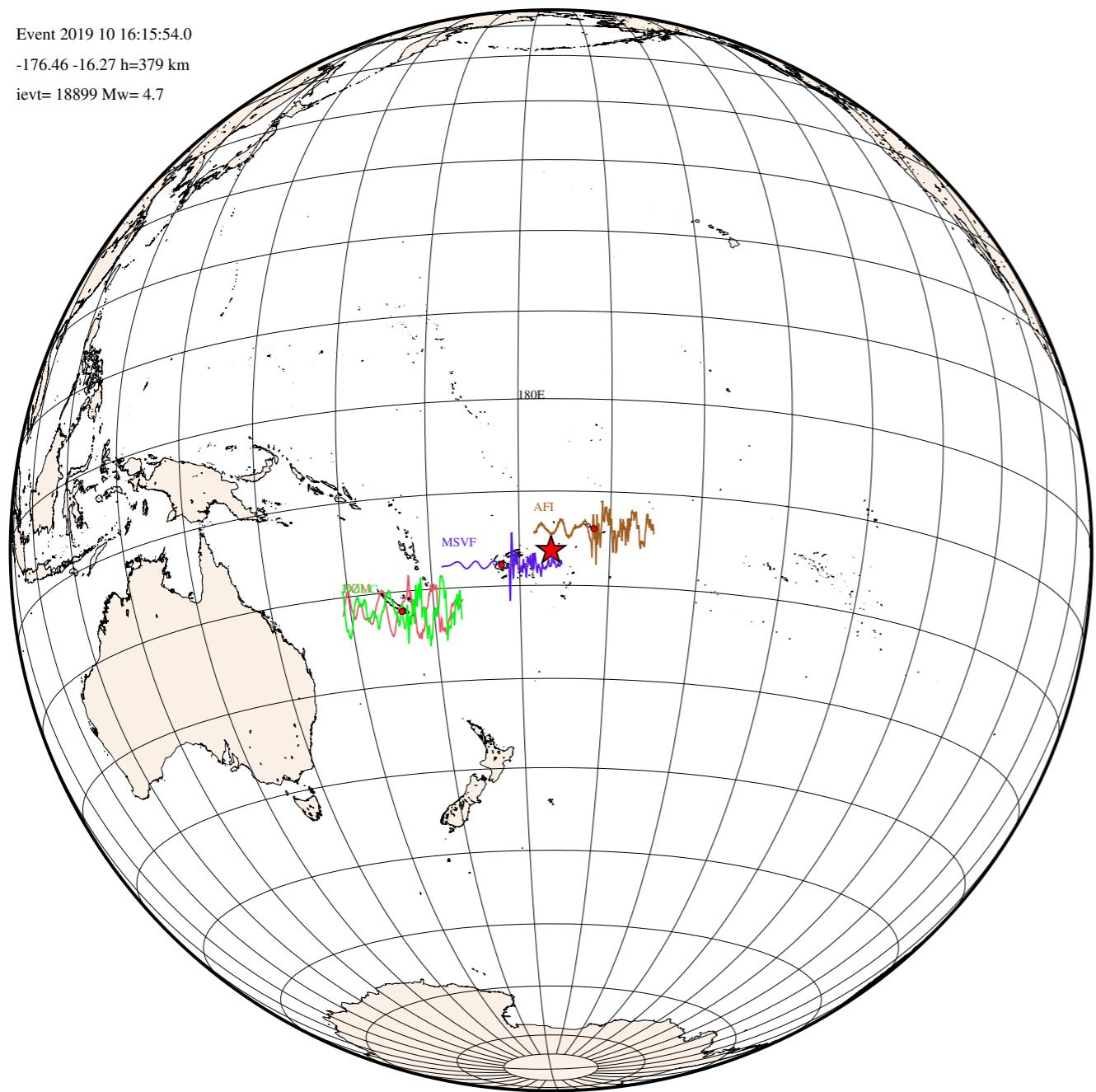


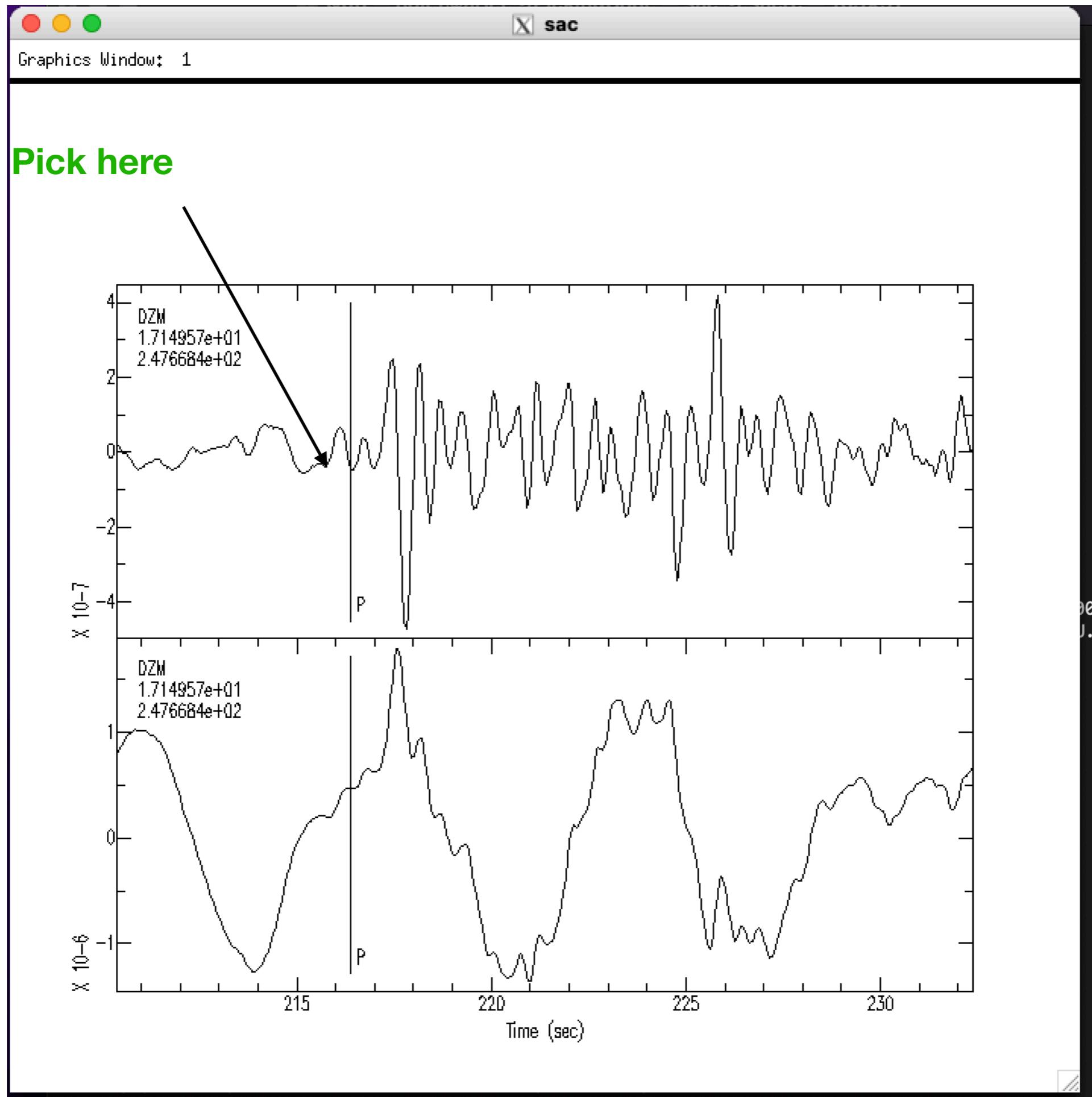
- Point crosshair
- Type 'L' to pick
- Type 'N' for next

Note: typing 'A' is no longer needed

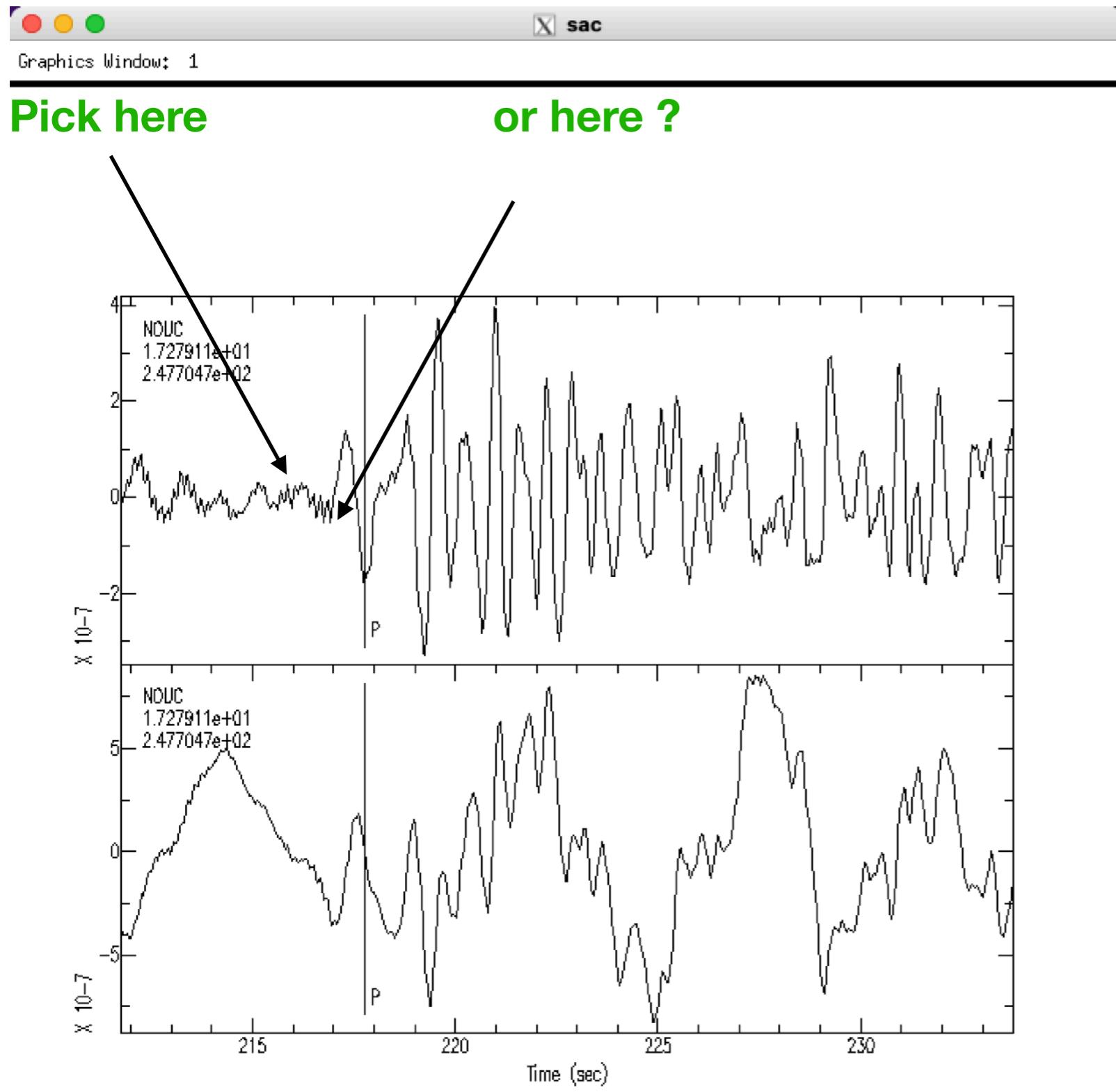


Station DZM is in New Caledonia on subduction zone,
quake is at 279 km depth -> guided wave precedes large onset





But NOUC is not so clear - skip by typing 'N' without picking



The <add_to> file is what I need for inversion.

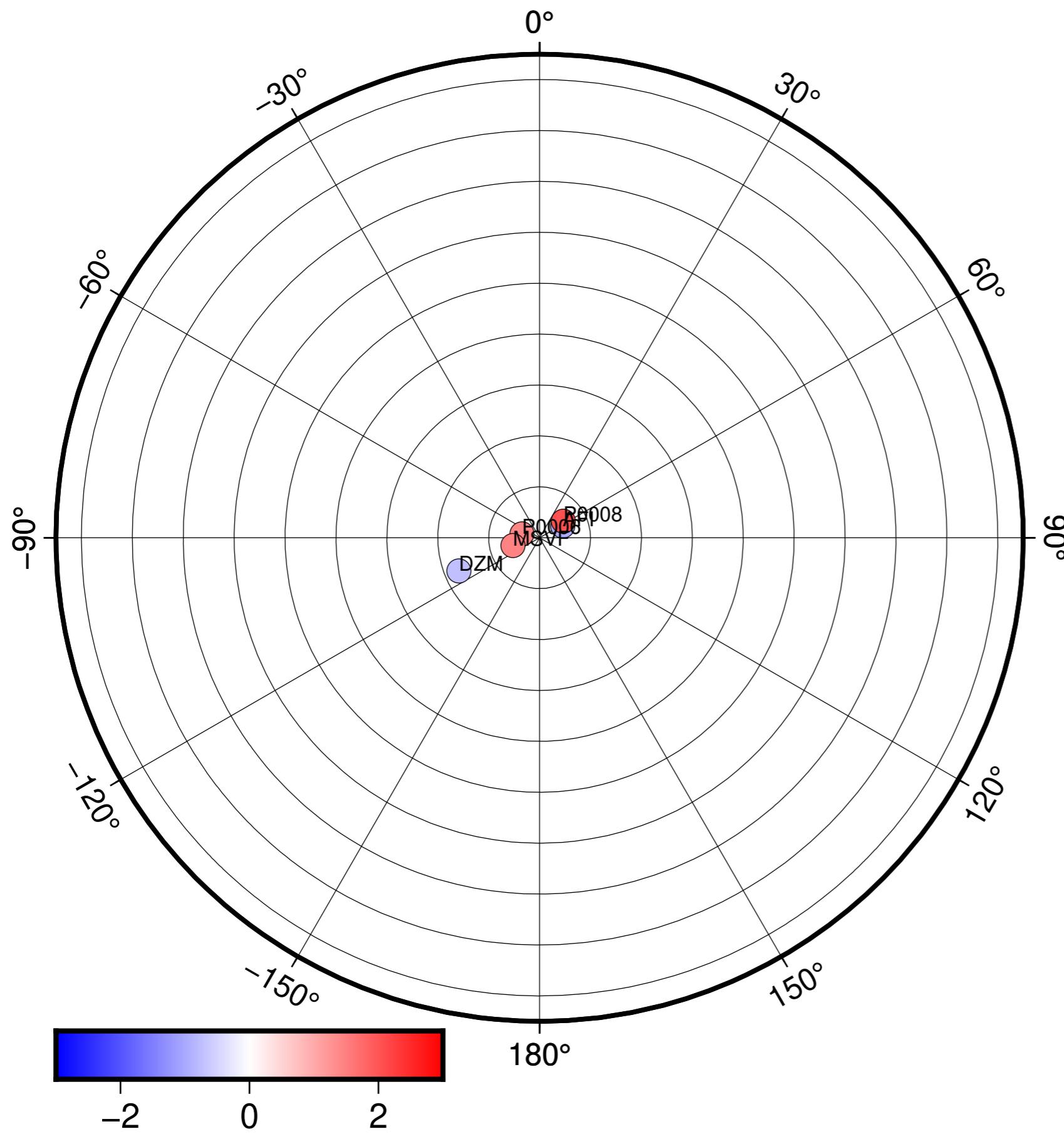
It lists an error <tsig> that assumes:

- An (average) pick error of 0.4s (*modifiable in the call to rdapf2*)
- An average crustal correction error 0.4s (*hardwired*)
- A mermaid location error from *out.cfneic*

For individual stations, this error can be edited as step in pnext

The add_to file

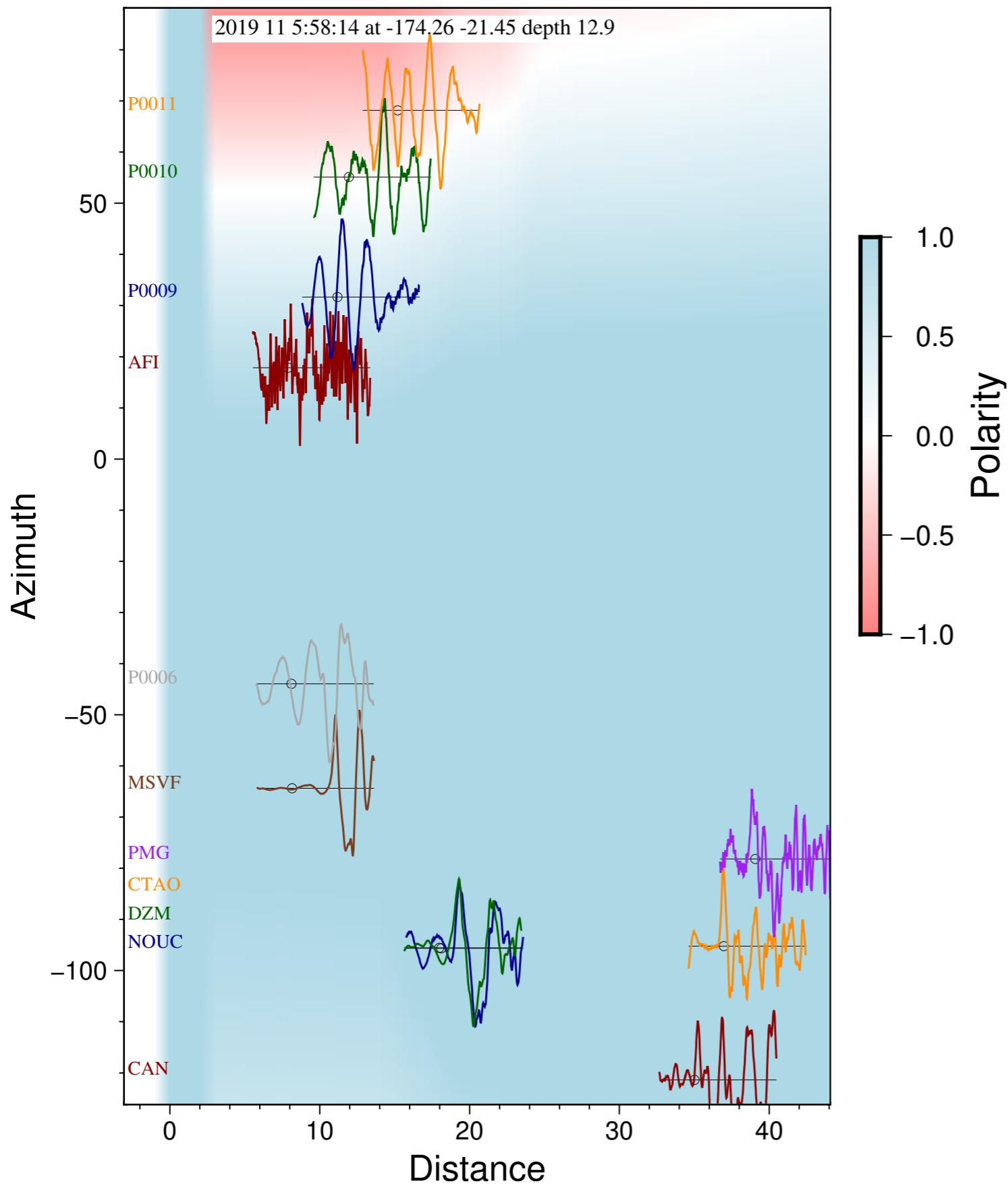
After picking, distance-azimuth plot shows residuals



*Step 3: hit <n> to end,
<t> to give a bias time to rdapf2,
or <r> to repeat the picking once*

```
APF file was closed with CAPF. You must open it again if you
wish to continue, by typing OAPF NAME
end of:
/Users/auguste/Scratch/MM/2018/20181118/DATA/Q00
```

```
[n]ext event, give nonzero [t]bias, or [r]epeat? n
```



If moment tensor is available, polarity is shown as red(down) and blue(up)

Doing it flawless: typing <pnext> uses script <dopick> and brings up:

- *Plots of all the sacs on a map*
- *Plots of all sacs in delta-azimuth plane*
- *Plots of predicted polarity in that plane*
- “*Pickhelp*” plot of sacs in usable order
- *Source time function (if any)*
- *SAC ppk plots for picking*

Doing it flawless (continued):

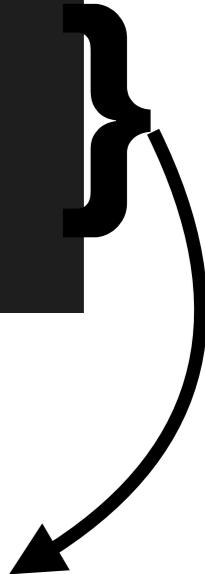
It takes care of processing the APF file, and makes sure that all sacs show an ‘A’ pointer at the pick

- *After picking it brings up the add_to file in vi*
- *And shows the residuals in delta-azimuth plane*
- *It prepares <picklist> for the next call to next*

The picklist: pick nearby events, start with the strongest

File DEEPcluster:

```
1833
1834 Cluster 39
1835 Centroid lat,lon: -27 -63, depth: 579
1836 n,j= 4 4
1837 dopick 2023/20230120/DATA/Q01 6.8 -26.75 -63.08 596.8
1838 dopick 2023/20230124/DATA/Q01 6.4 -26.72 -63.11 580.0
1839 dopick 2023/20230805/DATA/Q01 6.2 -28.18 -63.18 575.0
1840 dopick 2019/20191224/DATA/Q01 6.0 -26.91 -63.36 563.5
1841
```



Put these lines in file <picklist> before calling next