

CHARME

Flat Slab to Steep Subduction Change of Nazca Plate in Central Chile

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Assembled Data Set 05-025



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CENTRAL CHILE
TEMPORARY NETWORK (CHAR02)
Nov. 07, 2002 - March 08, 2003

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- Overview.

The 2002 Chile-Argentina (CHAR02), was a microseismic monitoring project in central Chile and Western Argentina (31°-34°S), done in joint collaboration between University of Chile and IRD-France. Objectives were to study the subduction processes in the region and particularly to perform a 3-D body-wave local tomography, where a change from flat-slab to steep subduction occurs in the subducted slab.

- Acquisition.

Fourteen stations from Passcal, Reftek 72A-08 with Guralp CMG40T sensors, recorded in continuous mode at 125 samples per second in the Chilean side. Permanent stations from the Central Chile network (<http://ssn.dgf.uchile.cl>) complemented the temporary network. At Argentina, fifteen stations from France were deployed (monfret@geoazur.unice.fr) (24 bits recorders with Guralp CMG40T and 3T).

-The station instrumentation and locations in Chile are summarized in the following table:

PASSCAL STATIONS IN CHILE

| LAT(S) | LON(W) | Elev(m) | STA_NAME | DAS# | SENSOR# |
|-----------|-----------|---------|----------|------|---------|
| -33.83600 | -70.21467 | 1505 | TUNG | 0362 | T4893 |
| -33.47834 | -70.13759 | 1738 | ALFA | 0395 | T4301 |
| -33.57781 | -70.40984 | 929 | ELMA | 1032 | T4891 |
| -33.61575 | -71.20398 | 234 | SAJO | 1204 | T4901 |
| -33.39272 | -71.18550 | 327 | LOCU | 0576 | T4624 |
| -32.90104 | -70.27118 | 1657 | GUAR | 0900 | T4463 |
| -32.83016 | -71.10203 | 487 | CHUI | 0099 | T4618 |
| -32.50107 | -70.58214 | 1224 | PATO | 0227 | T4880 |
| -32.47384 | -71.10750 | 208 | LIGU | 1206 | T4871 |
| -32.03338 | -70.58313 | 1612 | ALME | 1028 | T4426 |
| -32.08540 | -71.16576 | 524 | TILA | 1207 | T4620 |
| -31.71053 | -70.75271 | 1397 | ZAPA | 0870 | T4411 |
| -31.74556 | -71.16772 | 332 | LIMA | 0340 | T4478 |
| -32.85337 | -70.71243 | 804 | AUCO | 0907 | T4301 |

-In Chile, all the channel orientations are:

Channel 4: Vertical (Azimuth=0°, Dip=90°)

Channel 5: N-S (Azimuth=0°, Dip=0°)

Channel 6: E-W (Azimuth=90°, Dip=0°)

-Waveforms:

The recorded waveforms are processed in Linux, and send in tar files, bzip2 compressed corresponding to days (Eyear-julday.tar.bz2). Each compressed tar file contains the events recorded in this day, organized in directories (Ehour:min:sec) in SEGY format, time corrected, in files per channel (yr:julday:hour:min:sec.DAS#.ch#)

