BOLIVIAN NETWORKS AND SEISMICITY

National Geophysical Networks in Latin America – IRIS Workshop

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1. **INTRODUCTION**.-

- Non Profit and private Institution related to Seismic and Infrasound Monitoring.
- 102 years reporting and producing bulletins for all seismicity in Bolivia.
- Hosting three IMS-CTBTO stations PS06, AS08, IS08.
- Working with CEA/DASE French and AFTAC U.S. collaboration.
2. **Bolivian Seismicity**.
2. Bolivian Seismicity (i).

- **Seismogenic Sources according the origin:**
  - Depth lower than 75Km, associated to areas that have the continental deformation.
  - Sub-Source related to the potentially active faults:
    - Depths greater than 5Km, frequently magnitudes are equal or lower than one.
2. Bolivian Seismicity (ii).-

- **Seismogenic Sources due the subduction process:**
  - Originated inside the Nazca Plate, high magnitudes with deeper depth.

- **Intermediate earthquakes:**
  - From 100Km to 350Km, around La Paz, Oruro and Potosi.

- **Deep earthquakes:**
  - From 500Km to 700Km, around Beni, Santa Cruz, Tarija and La Paz, the mean magnitude is 8 Mw.
2. Bolivian Seismicity (iii).-

Seismicity >4

Seismicity >6

Main Network:
- AFTAC
- DASE
- OSC

Temporally Stations & Projects:
- OSC
- GEM/SARA
- U. Canada
- Plutons
- Caught

Projects:
3. **Bolivian Seismic Networks (II).**

- **IMS Stations**
- **Our Small Network**
- **TA deployed by CAUGHT and PLUTONS + Shared Data**
3. Bolivian Seismic Networks (iii).

New Own Network “Closed” due to lost of Telecom Company Support

Rx Data from shared networks
3. **Bolivian Seismic Networks (IV).**

- **SP from French Cooperation.**
- **BB from US Cooperation (IMS network).**

**LP’s from French Cooperation (IMS network).**
4. How to get a fast solution with low resources.
4. **How to get a fast Solution with low resources (I).**

- **SP + IMS data**
- **Data from Chile, Brazil, Argentina**
- **EW Acquisition STA/LTA**
- **Seisan for Auto-localization**
- **Information to Media**
- **P_L_Sky**

5 min

6 min
4. **HOW TO GET A FAST SOLUTION WITH LOW RESOURCES (II).**

![Diagram](image-url)
4. HOW TO GET A FAST SOLUTION WITH LOW RESOURCES (III).-

SERVIDOR_EARTHWORM

SEND_FILE
With Waveforms

GET_FILE

TEMP

DATA

BATCH_LOC_AUTO

SEISAN

Red_OSC

PC_SEISAN

P_L_Sky.py

sms_call.py

gmail_S_file.py

BATCH_call_mail_OSC

SMS by Skype
To phones

Gmail_with Localization Info
4. How to get a fast Solution with low resources (IV).-
4. How to get a fast Solution with low resources (V).

From 4 to 6 minutes, this information helps the analyst to calm down the media.

Of course our app is open and waits some feedback...to improve it and share it.
5. HIGHLIGHTS:

Sharing Data

Virtual Networks | Free Software + updates + support

Not Complaining

Easy is better than Complex | If apply; take certified stations as reference

Open Mind

Apply new tools + GitHub | Share Experiences
Thank you for your attention