

Radio Observatorio de  
**JICAMARCA**  
Radio Observatory

# Overview of LISN project

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# Jicamarca Radio Observatory

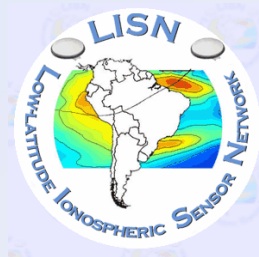


<http://jro.igp.gob.pe>

# Low-Latitude Ionospheric Sensor Network

LISN is an international project that monitors the low, middle and high atmosphere in the equatorial region with the purpose of studying and forecasting the ionospheric phenomena.

LISN is a permanent array of new instruments in South America (Distributed Observatory). All instruments have been installed near the position reference of the Magnetic Equator and the Meridian 70°W.



## LISN Instruments

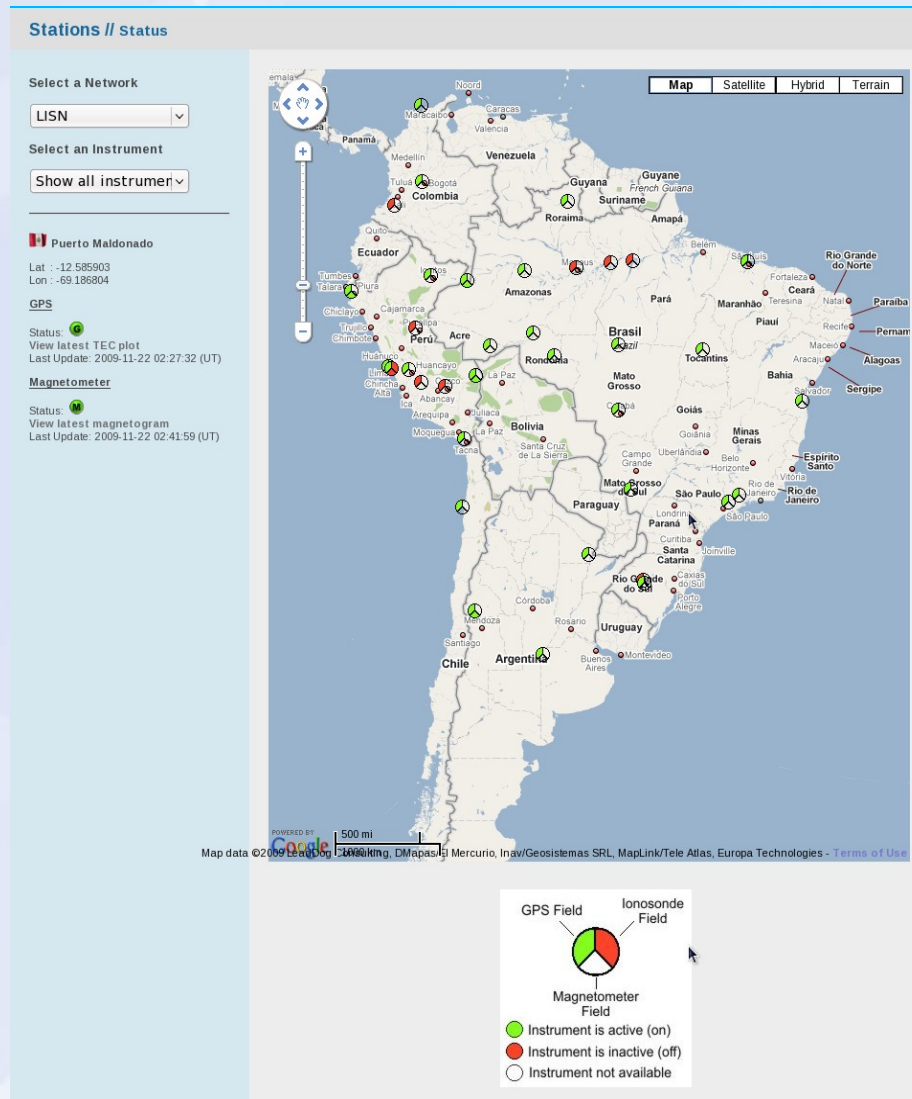
- 50 GPS (30 installed).
- 5 Ionosondes (1 installed).
- 5 Magnetometers (3 installed).

# LISN Engineering - Operation

- Setup of new stations.
- Real time monitoring (every 15 minutes).
- Monthly statistics of operation.
- Real time displays for all instruments.

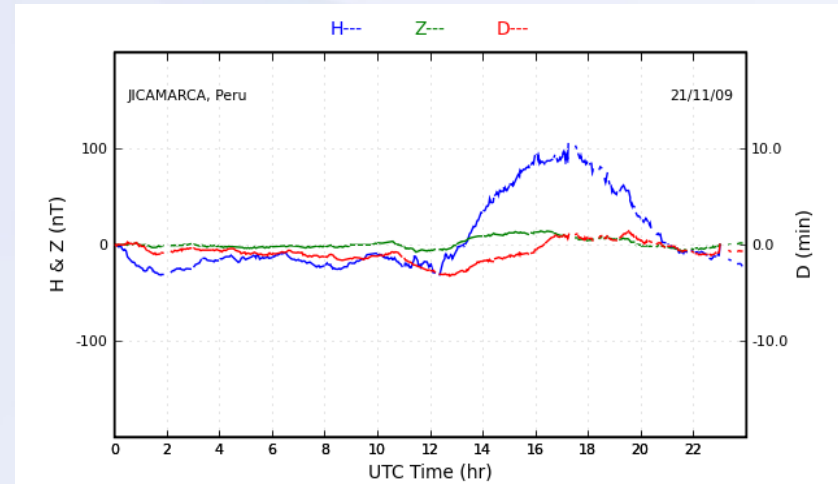
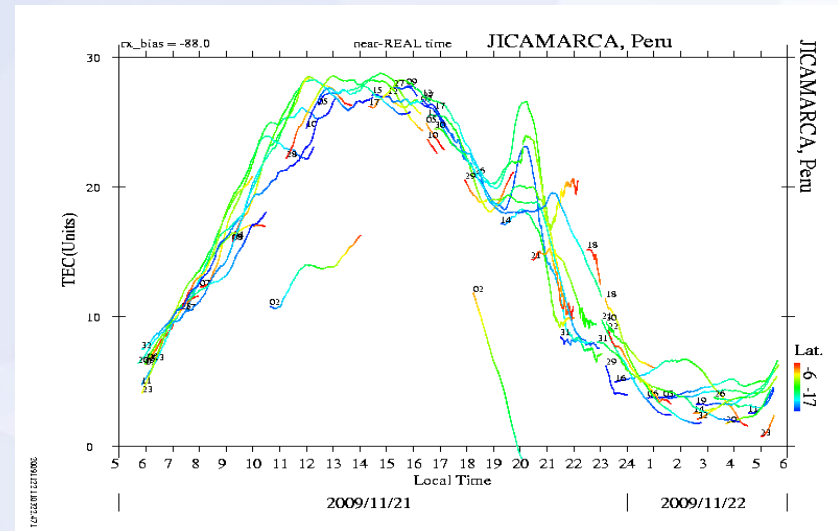
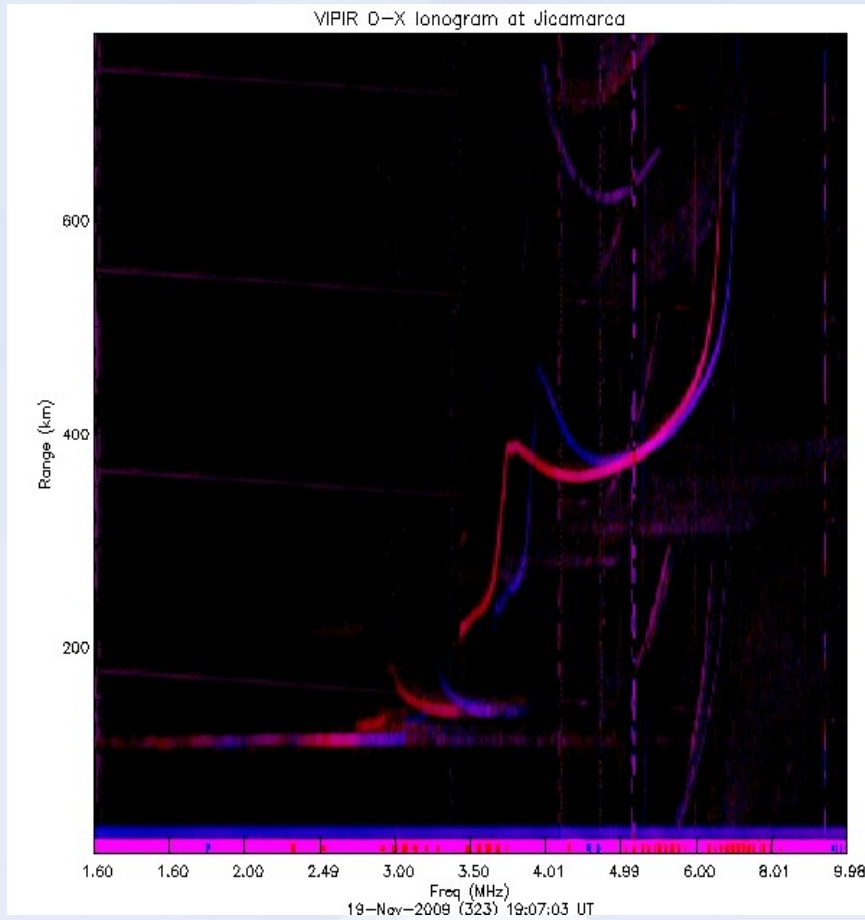


# LISN Engineering - Operation



On-line status  
for all  
instruments

# LISN Engineering - Operation



# LISN Engineering - Databases

- User access to different data products and on-line displays.
- Data availability depends of who owns the instrument. Most of our data are easy to access to register users.
- Open-source development under Python and PHP-HTML.
- GPS: Daily and monthly files, TEC, RINEX, Scintillations, Position and Binary.
- Ionosonde: NCDF, IDL Save files.
- Magnetometers: Minute and Second files.