

**A PRELIMINARY REPORT ON PREDICTION OF POSSIBLE STORNG EARTHQUAKE AROUND 1000 KM OF MALDA STATION BY MONITORING VERY LOW FREQUENCY SIGNAL ANOMALY IN VTX-MALDA, VTX-SITAPUR AND JJI-SITAPUR PROPAGATION PATH**

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We have been monitoring VLF signals from VTX (17 kHz) and JJI (22.2.kHz) from two of our receivers: MALDA and IERC/ICSP located at SITAPUR.

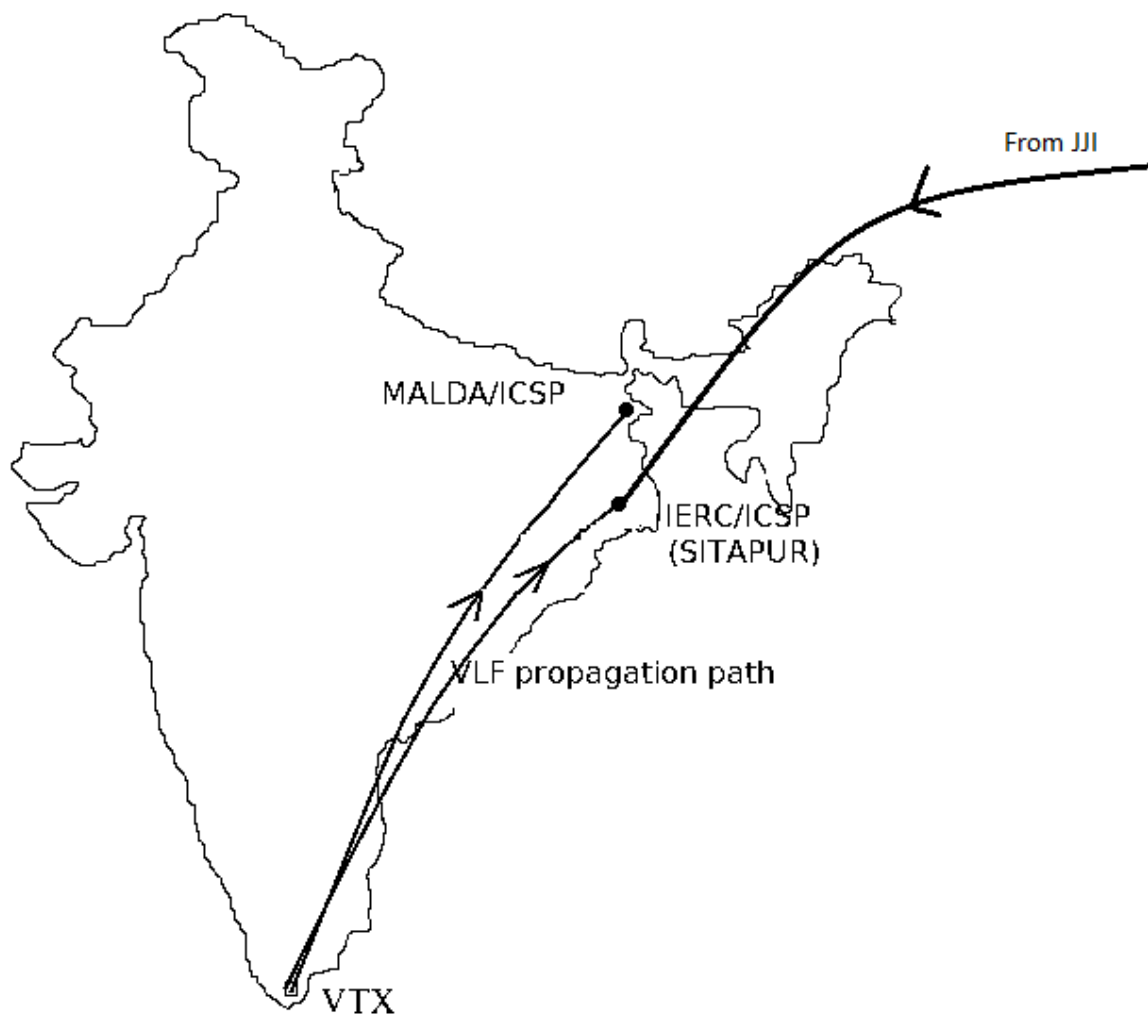


Figure 1: The VLF receiving stations and propagation paths.

Updated on 15<sup>th</sup> July Morning:

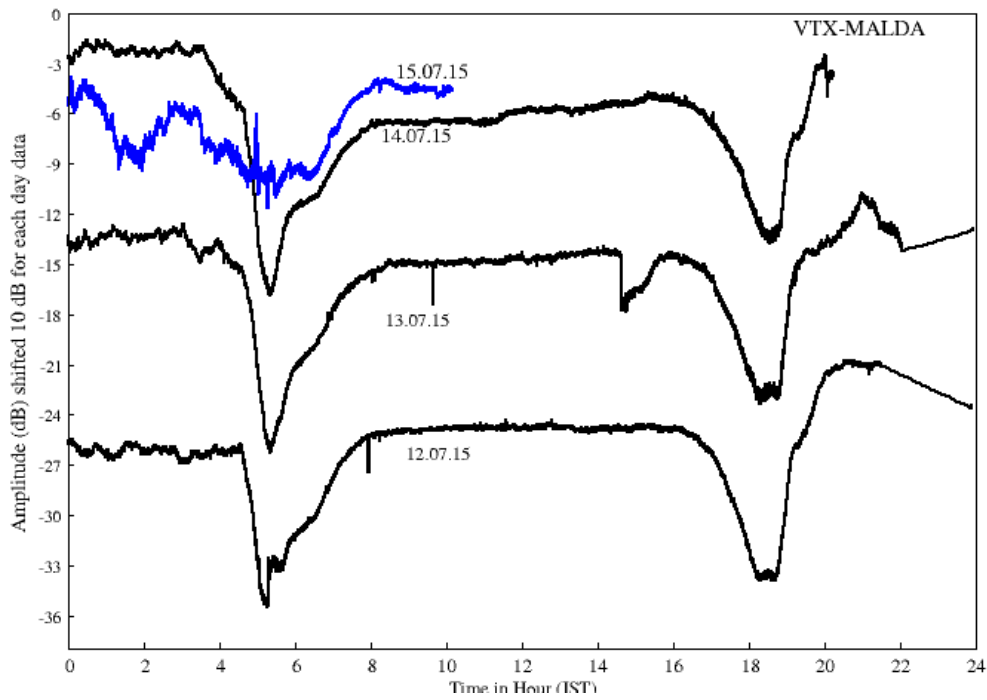


Figure 2: Anomalous night time amplitude change and anomalous sun rise terminator indicates major earthquake within 72 to 96 hours.

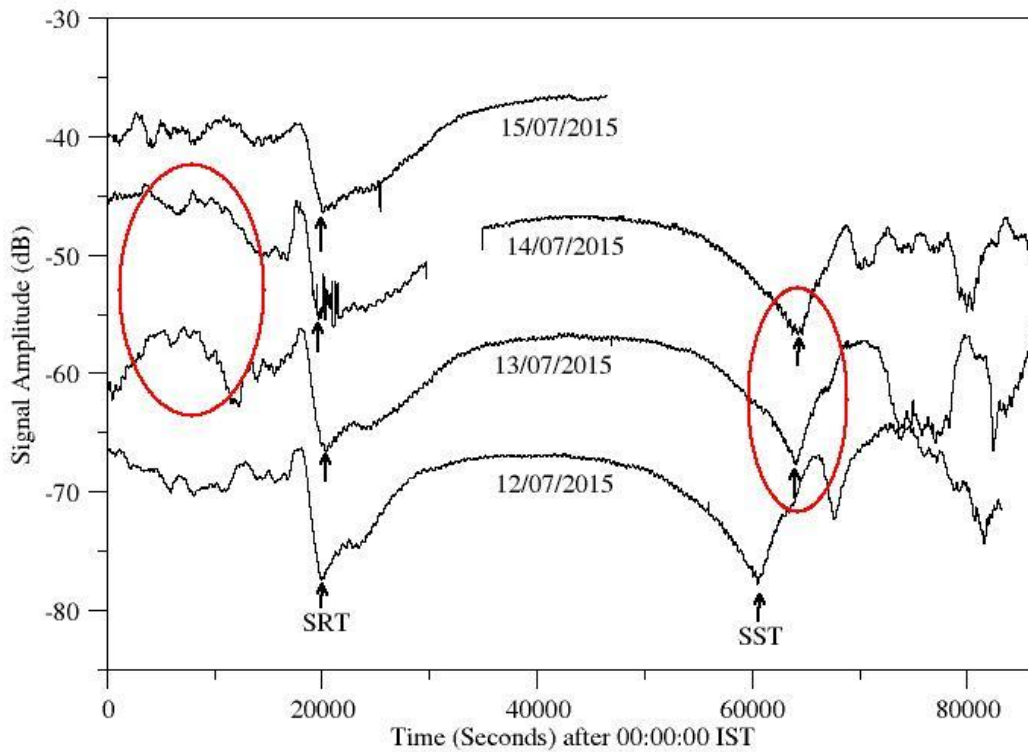


Figure 3: Variation of VTX-IERC signal amplitude as a function of time from 12/07/2015 to 15/07/2015. There is a strong nighttime fluctuation and strong sunset terminator shift started from 13/07/2015.

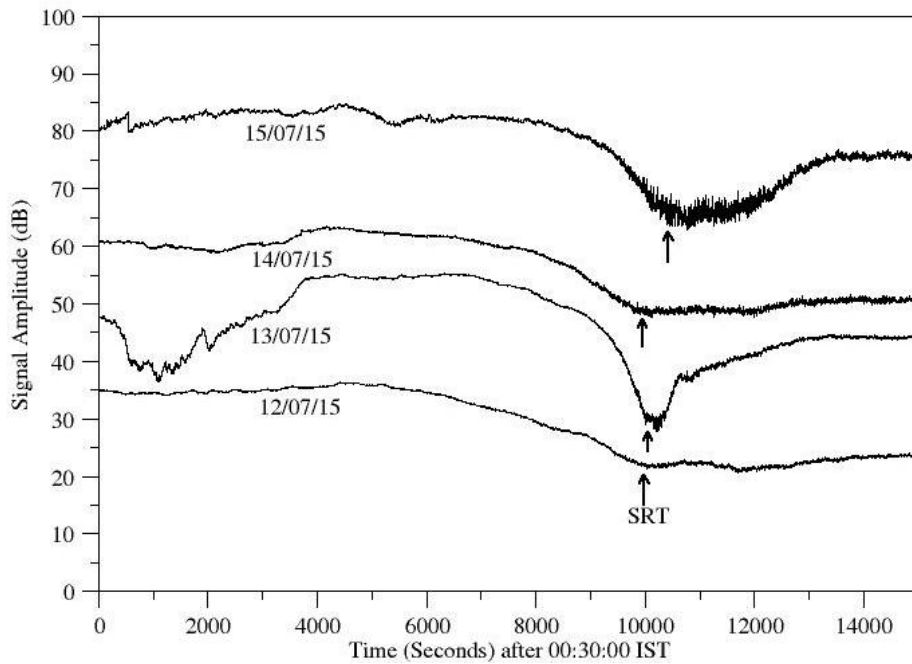


Figure 4: Variation of JJI-IERC signal amplitude (at sunrise time) as a function of time from 12/07/2015 to 15/07/2015. There is a shift in SRT but towards the day time.

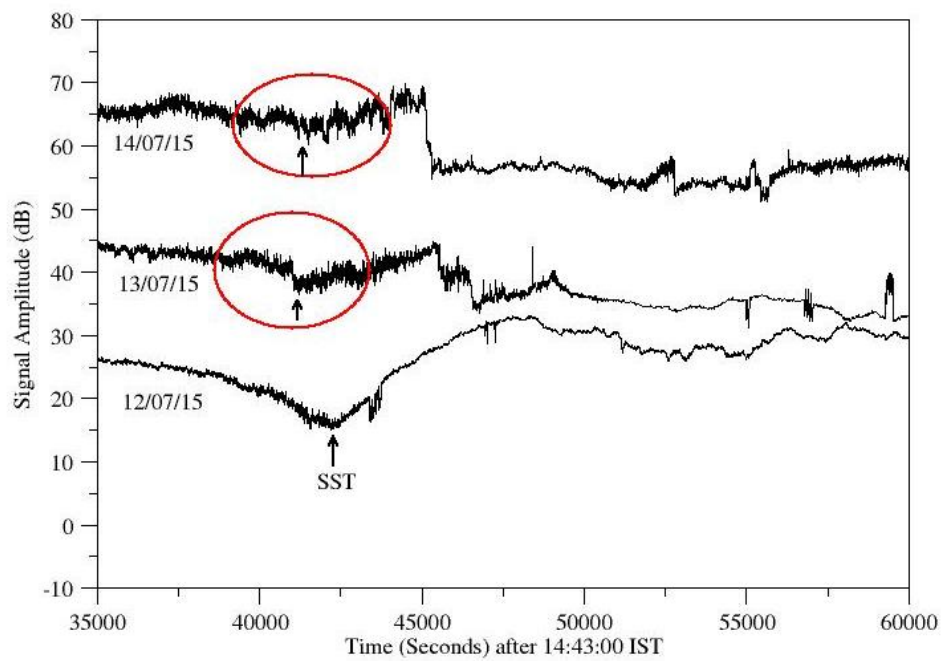


Figure 5: Variation of JJI-IERC signal amplitude (at sunrise time) as a function of time from 12/07/2015 to 15/07/2015. There is a shift in SRT but towards the day time.

Updated on 16<sup>th</sup> July, Morning:

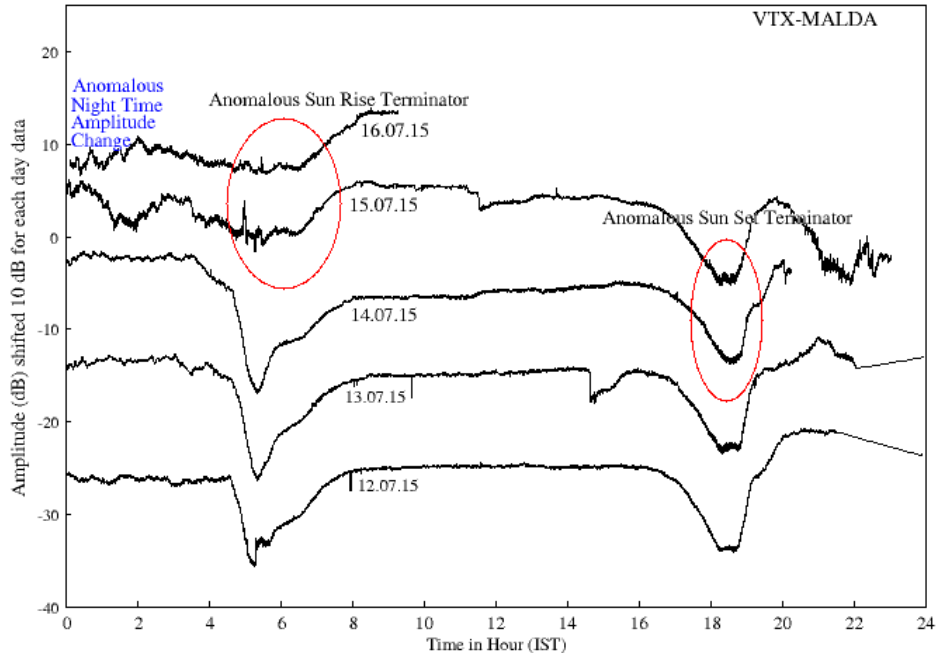


Figure. 6: Anomalous night time amplitude change and anomalous sun rise and Sun Set terminator indicates major earthquake within next 72 to 96 hours.

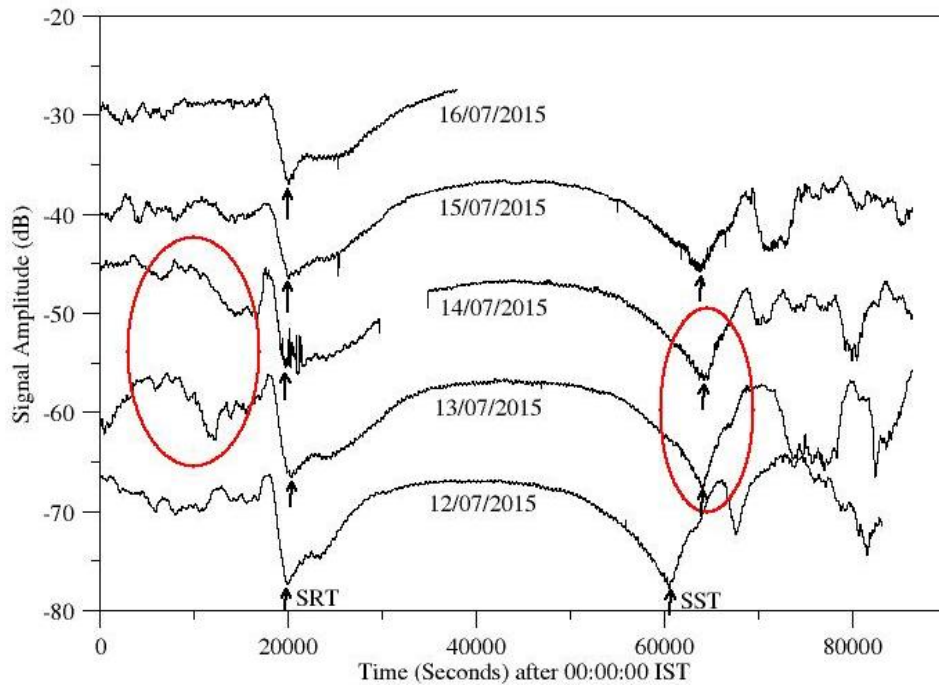


Figure. 7: Variation of VTX-IERC signal amplitude as a function of time from 12/07/2015 to 16/07/2015. The nighttime fluctuation is still high which indicates possibilities of strong earthquakes.

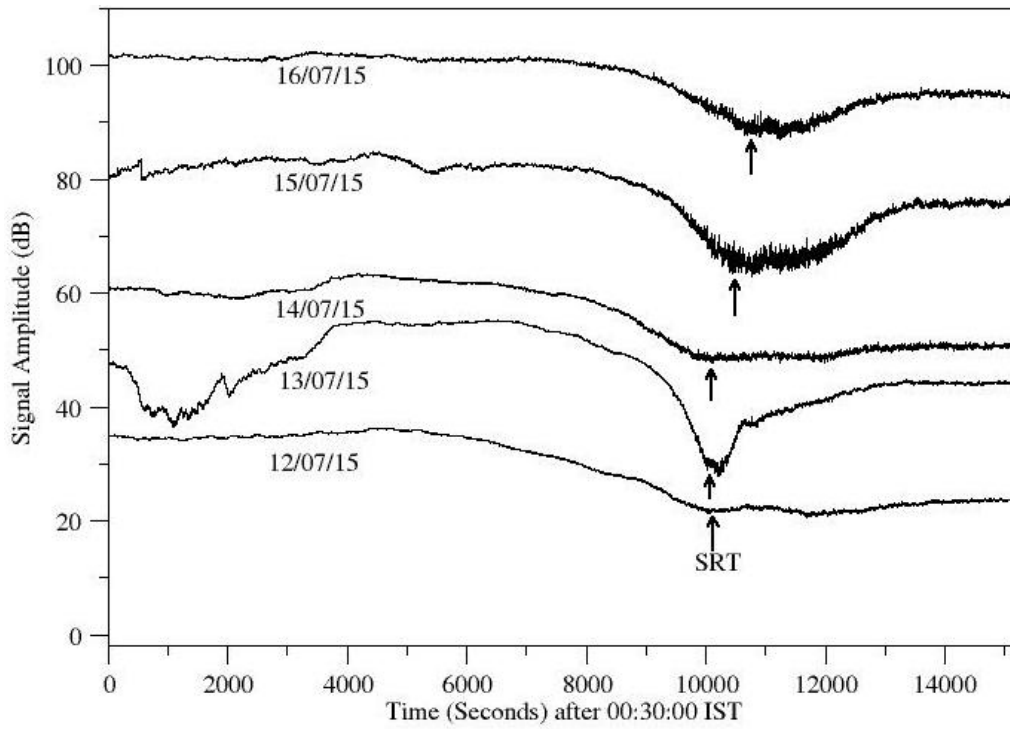


Figure. 8: Variation of JJI-IERC signal amplitude (at sunrise time) as a function of time from 12/07/2015 to 16/07/2015. The SRT has been shifted more towards the day time.

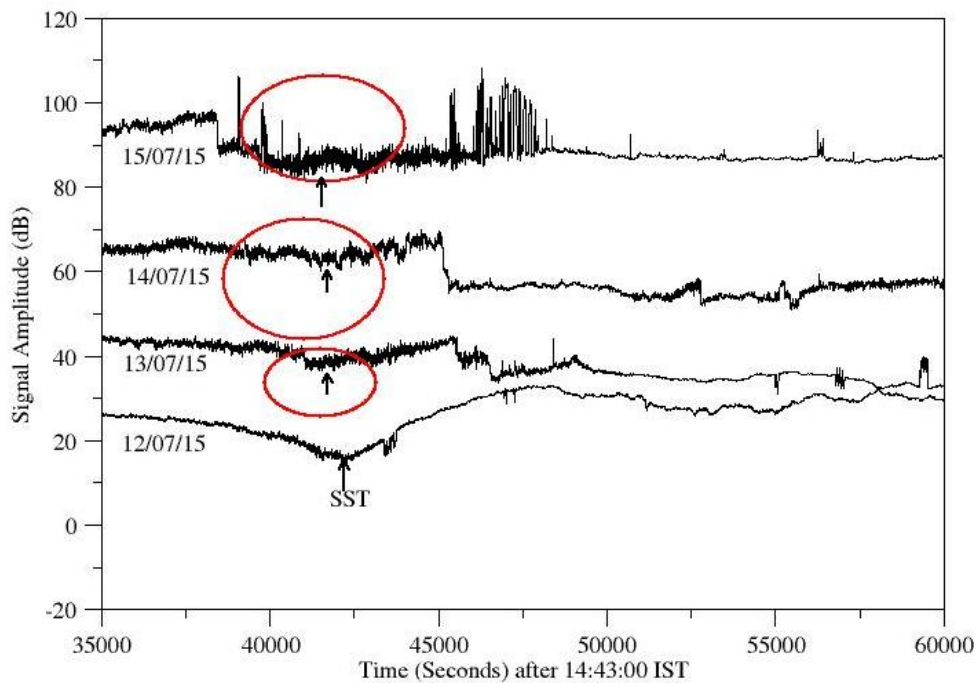


Figure. 9: Variation of JJI-IERC signal amplitude (at sunset time) as a function of time from 12/07/2015 to 15/07/2015. The sunset terminator times are still unusual on 15/07/2015.

Updated on 17<sup>th</sup> July, Morning:

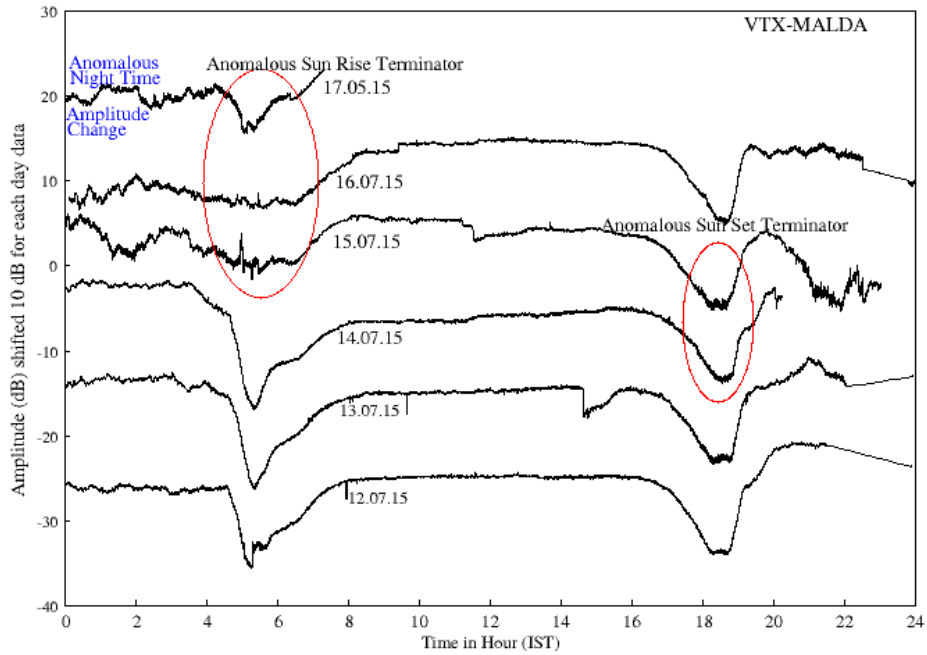


Figure. 10: Anomalous night time amplitude change and anomalous sun rise terminator indicates major earthquake within next 72 to 96 hours.

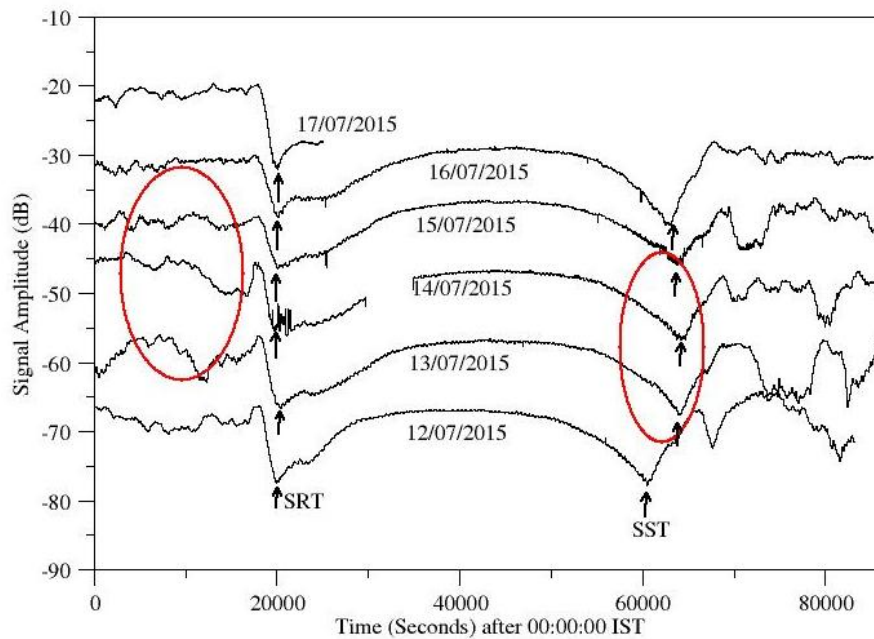


Figure. 11: Variation of VTX-IERC signal amplitude as a function of time from 12/07/2015 to 17/07/2015. The sunset terminator is returning back but nighttime fluctuation is still high

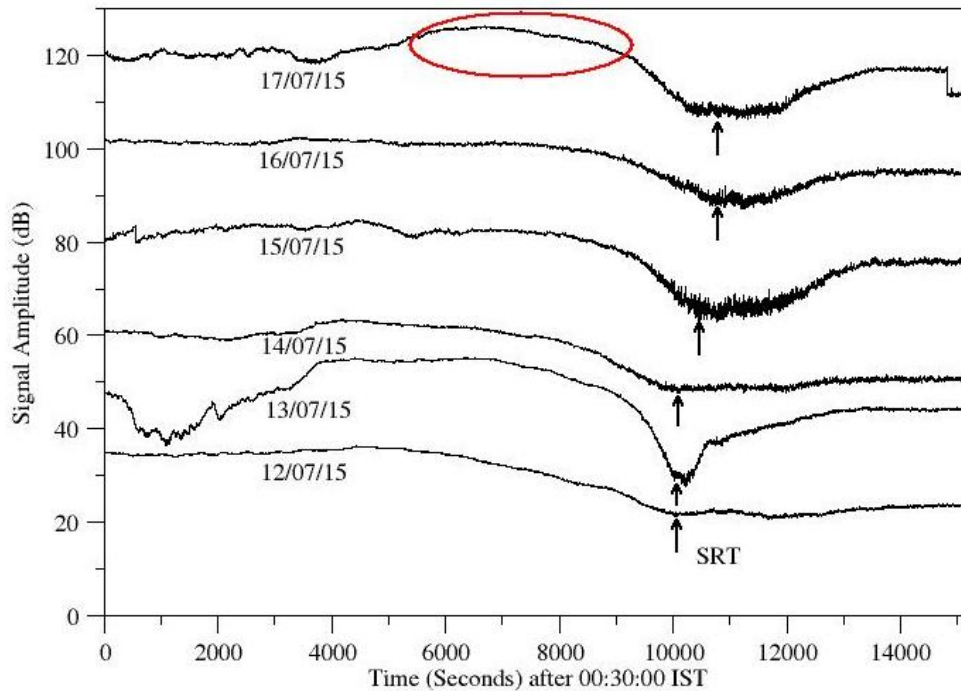


Figure.12: Variation of JJI-IERC signal amplitude (at sunrise time) as a function of time from 12/07/2015 to 17/07/2015. The nighttime signal amplitude before the sunrise is much higher than the last few days

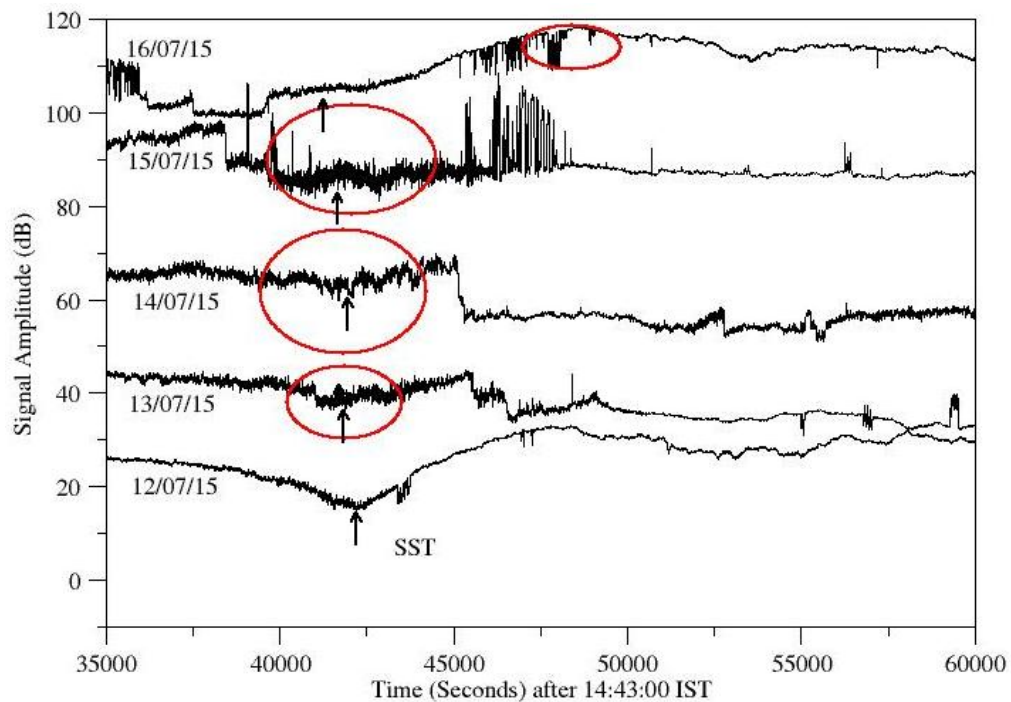


Figure.13: Variation of JJI-IERC signal amplitude (at sunset time) as a function of time from 12/07/2015 to 16/07/2015. The nighttime signal amplitude has been increased on 16/07/2015 after the sunset.

**Prediction: VTX and JJI signal contains anomalies indicating chances of earthquake in the next 72 hours.**

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