

A decorative horizontal band consisting of a grid of small, light blue plus signs (+) spans the width of the slide, positioned behind the main title text.

# Consultative Committee of Time and Frequency

15<sup>th</sup> Meeting of the  
working Group on Two-Way Satellite Time and Frequency Transfer  
**Station Report NMI-VSL**

# VSL Organisation of T&F

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# VSL Clock Room

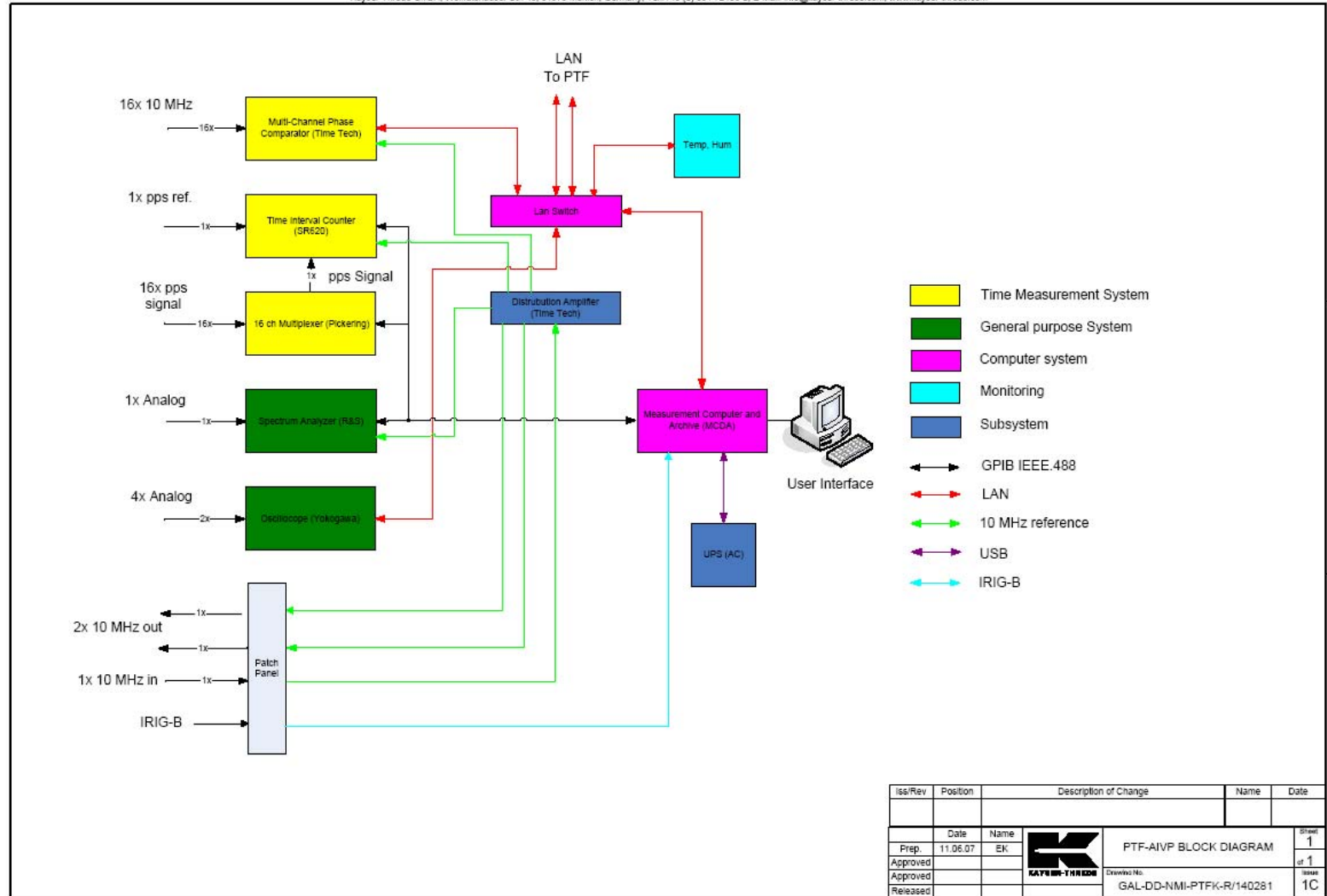


# VSL Activities

- TWSTFT via Mitrex modem & Satellite simulator (Satre parallel)
- GPS/Glonass geodetic multichannel P3 (Topcon legacy E)
- Backup GPS receiver Septentrio PolarXe TR geodetic receiver (also P3 data).
- CV GPS/Glonass multichannel receiver (3S Navigation R100)

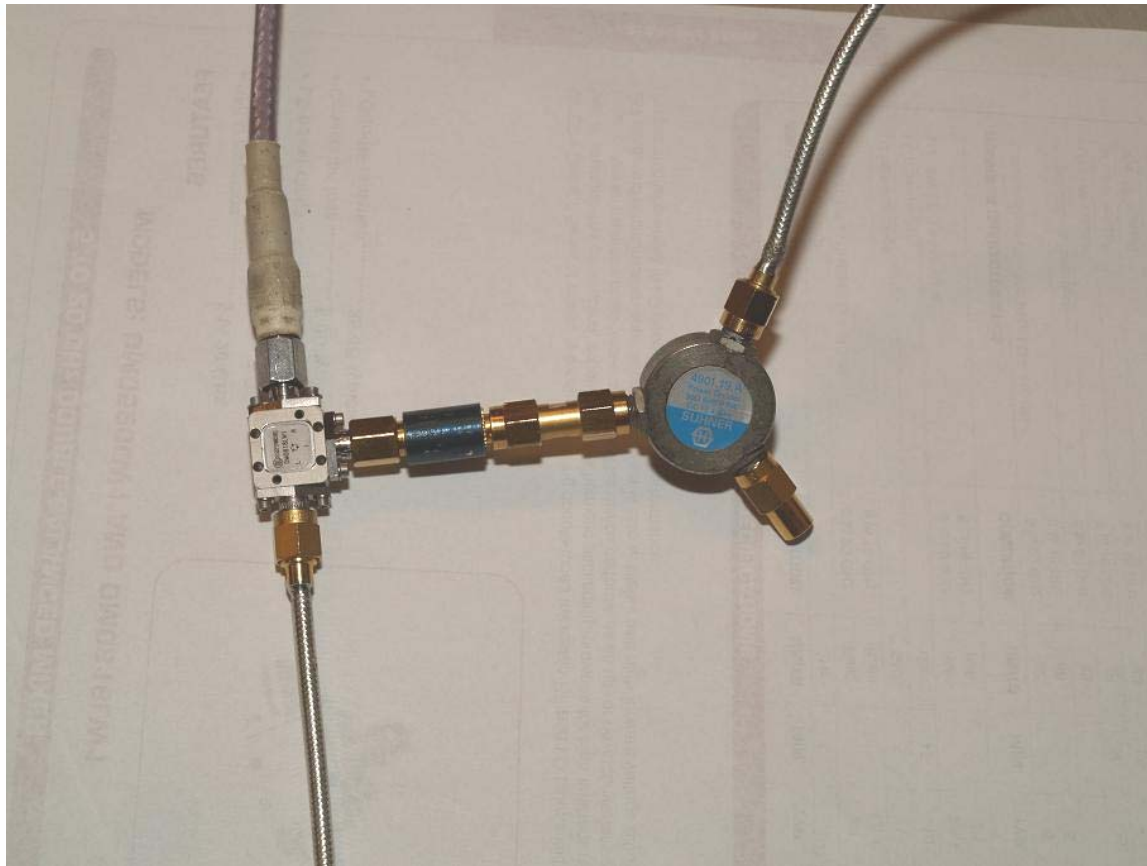
# Design and build the AIVP for the Galileo PTF (with NLR)

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# SatSim Mixer replacement

Old mixers have a delay change when TX power changes. Replaced by Miteq DM0520LW1 Double Balanced Mixer



# SatSim Construction



# SatSim Construction Feed Horn





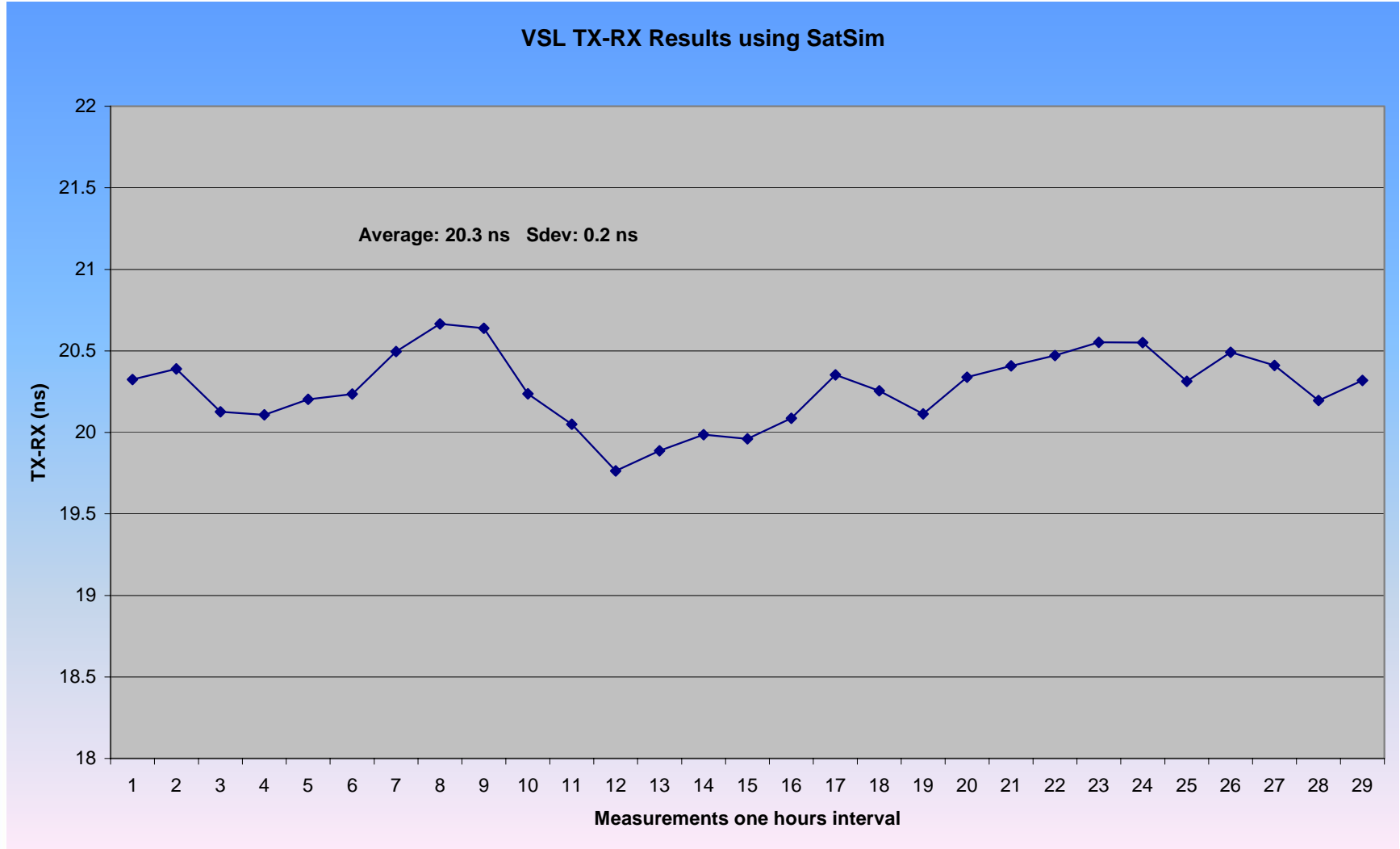
# SatSim Construction Housing



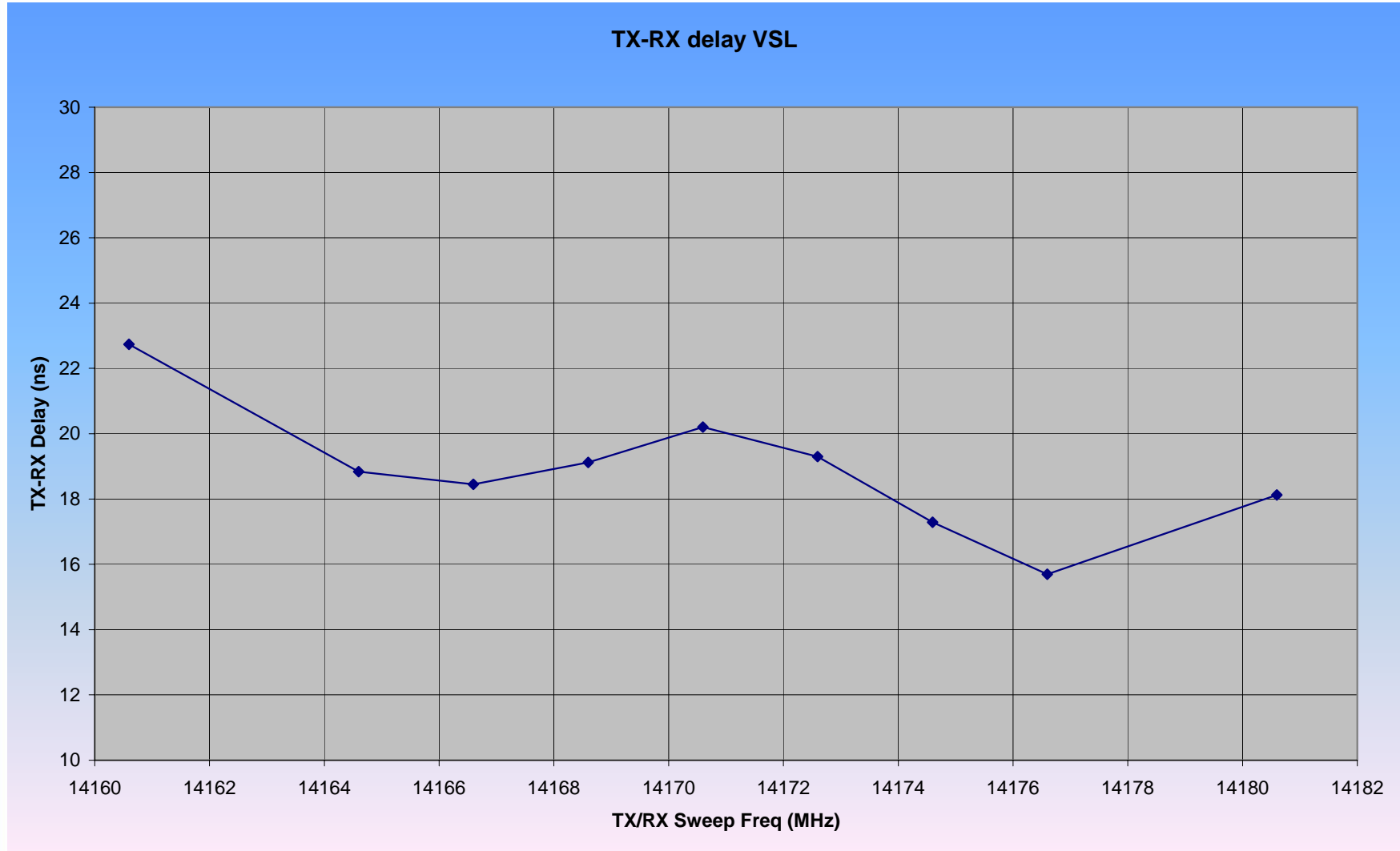
# SatSim Installed



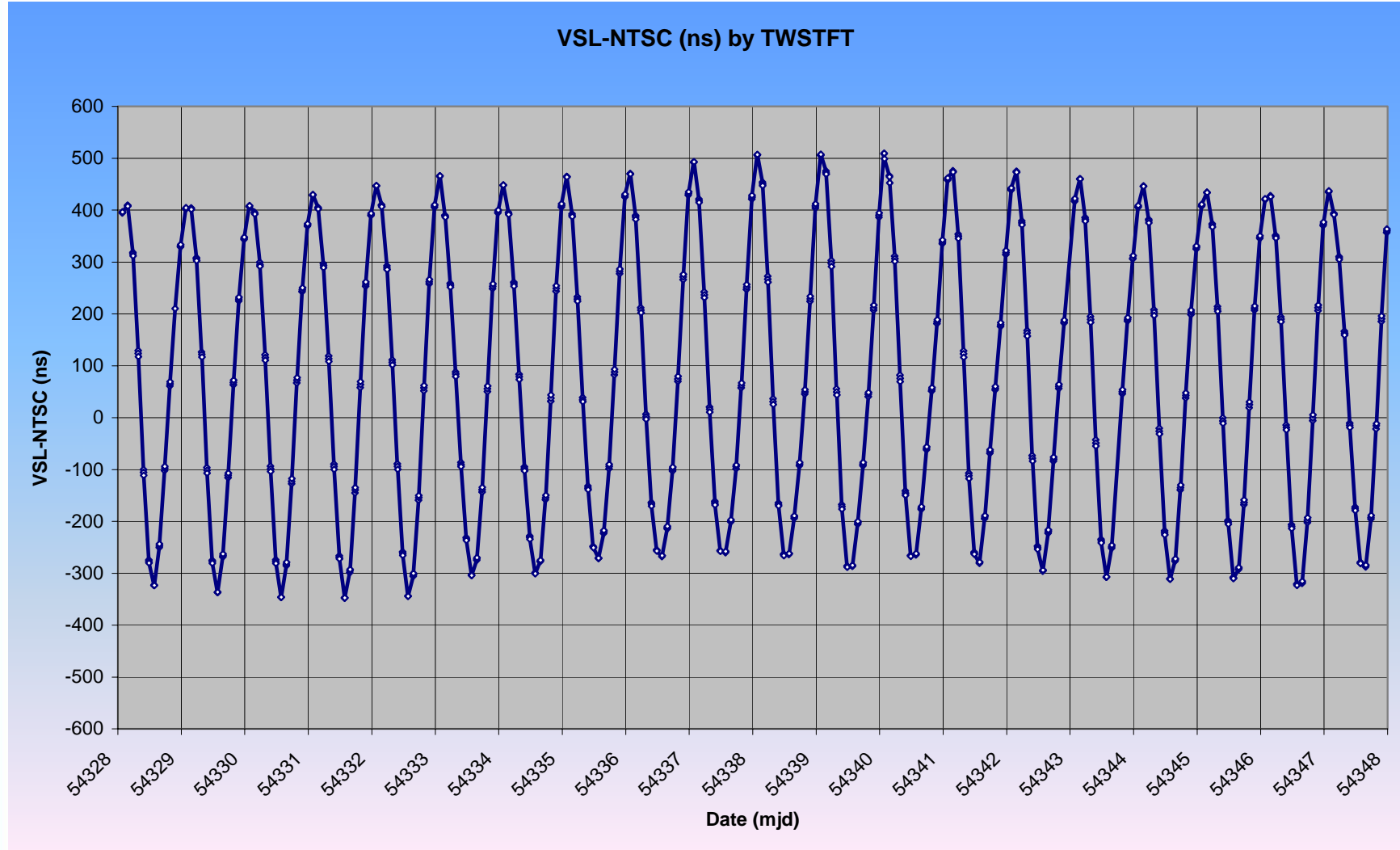
# SatSim Results



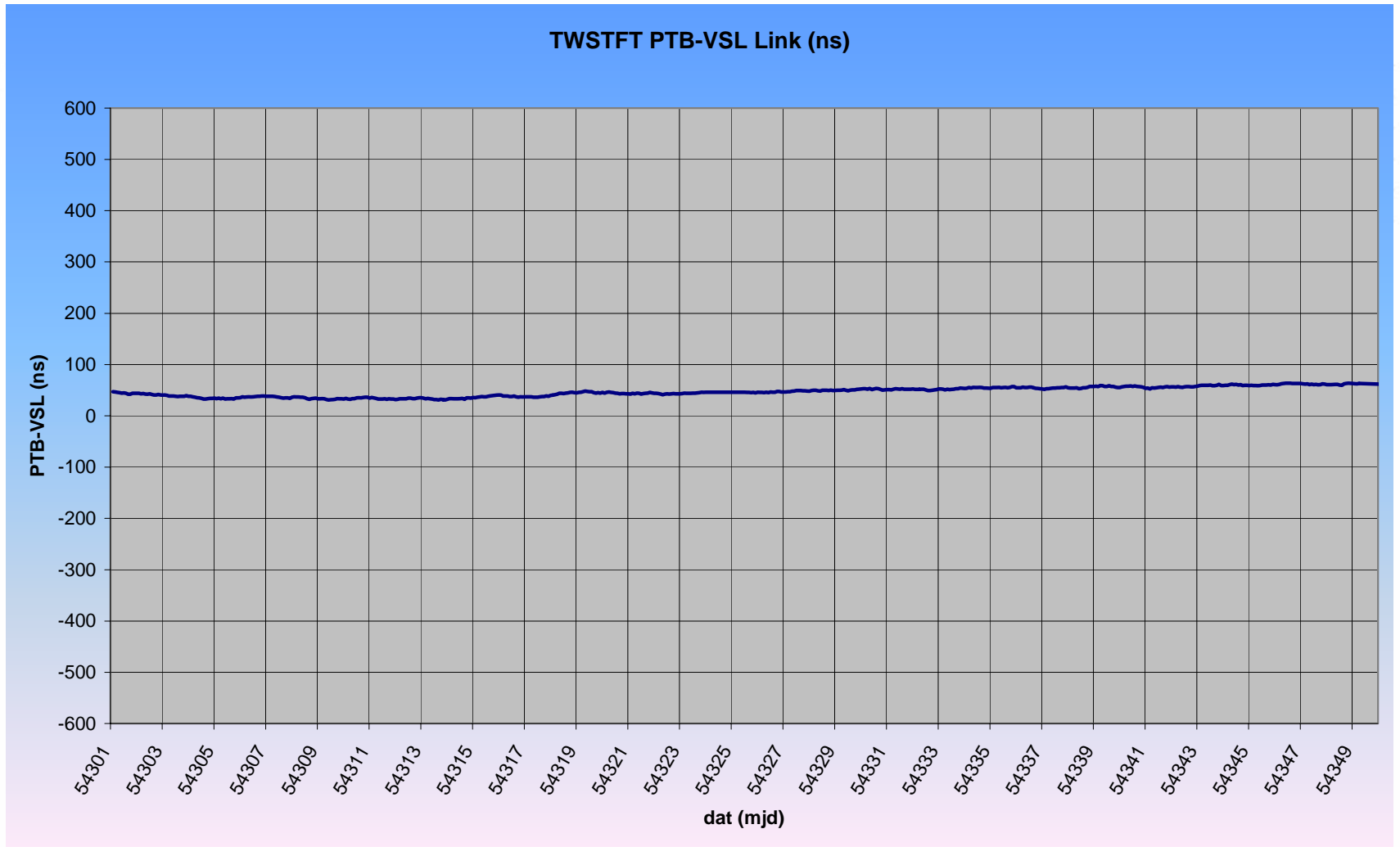
# Station Delay versus Frequency



# VSL-NTSC via TWSTFT Link Results



# PTB-VSL via TWSTFT Link Results



# Future Work

- Down converter replacement
- Satellite Simulator Synthesizer change
- Change from Mitrex to Satre modem
- Clock ensemble time scale