

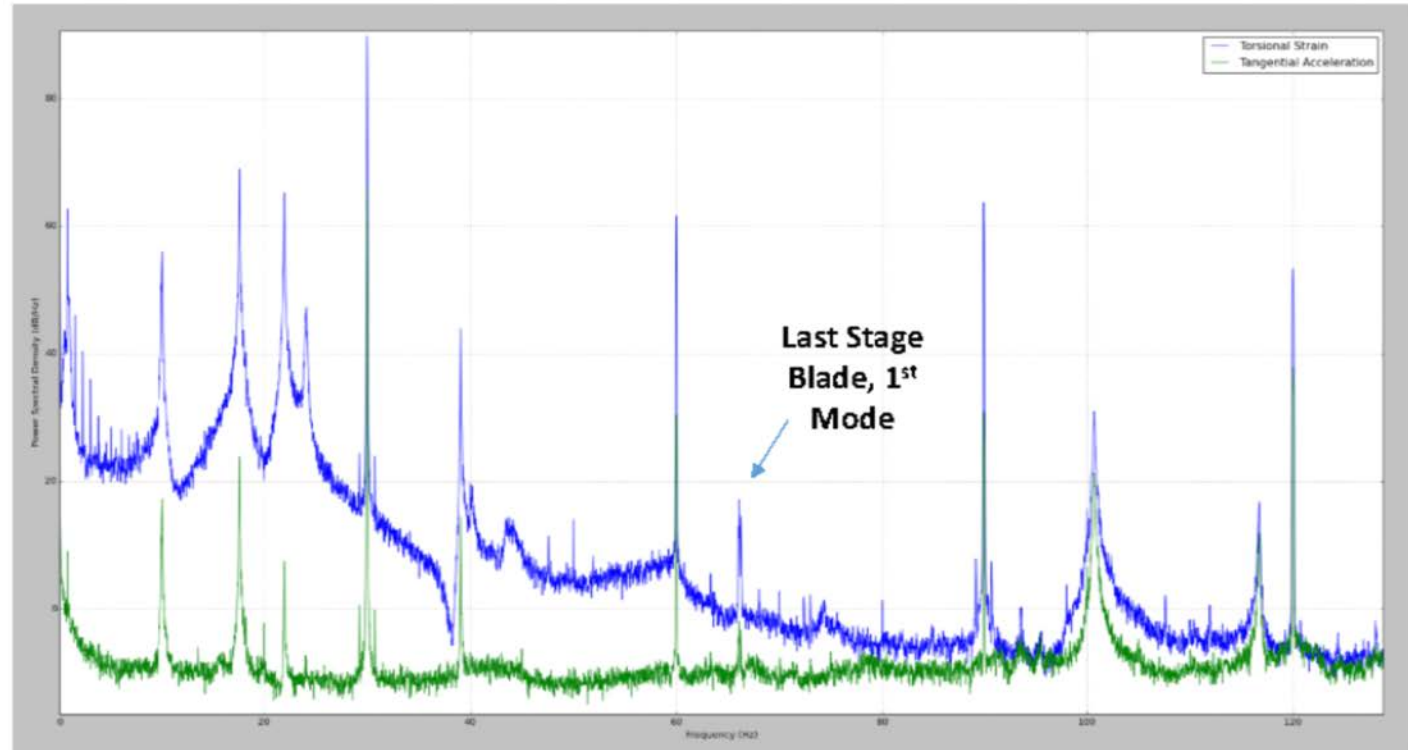
TDMS
TURBINE DYNAMICS MONITORING SYSTEM

TDMS Sample Data Plots

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1200mw Nuc turbine: here we can see the sub-synchronous frequencies and last stage modes are clearly visible.

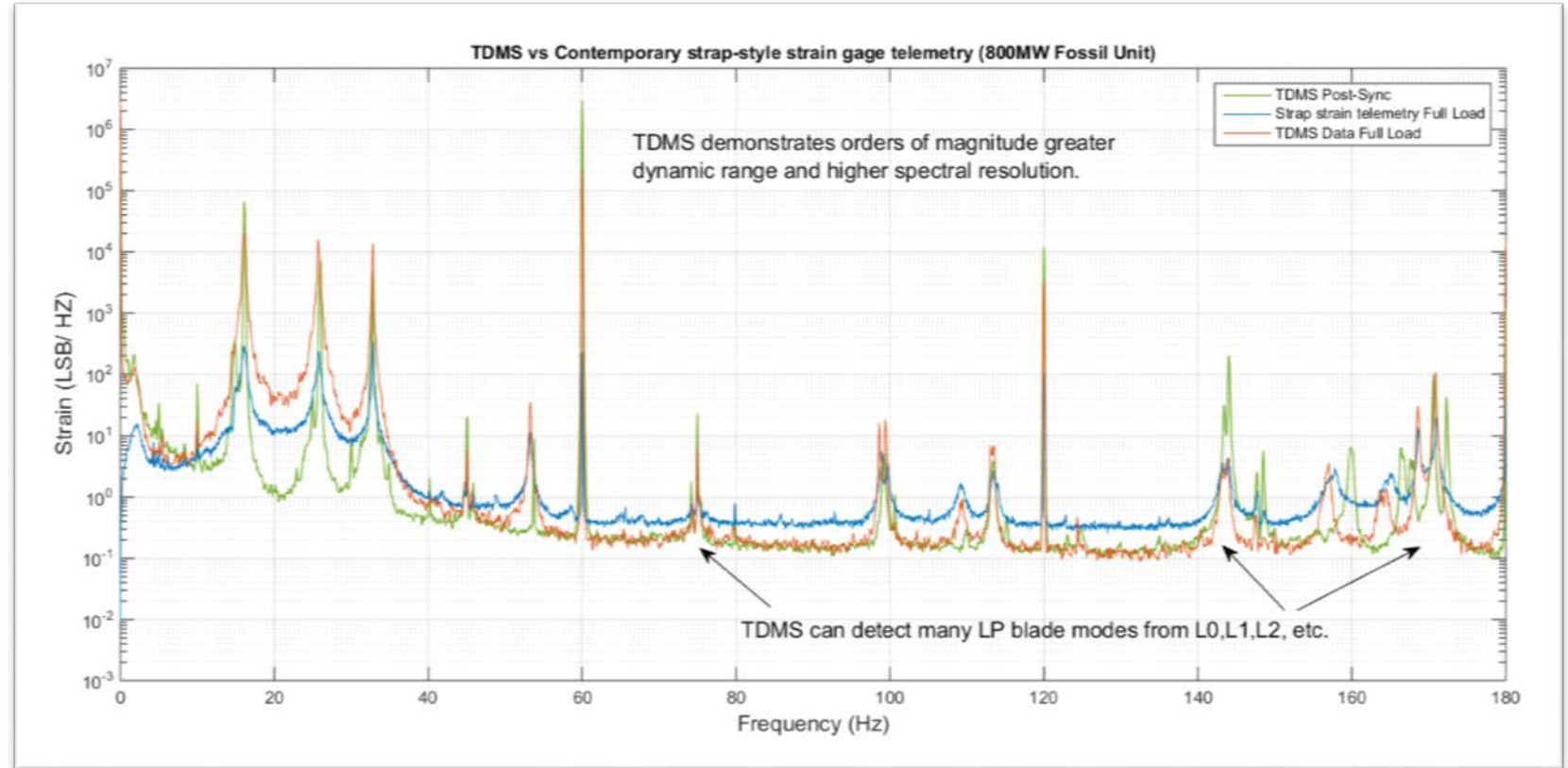
Torsional Sensor Data at 70% Load



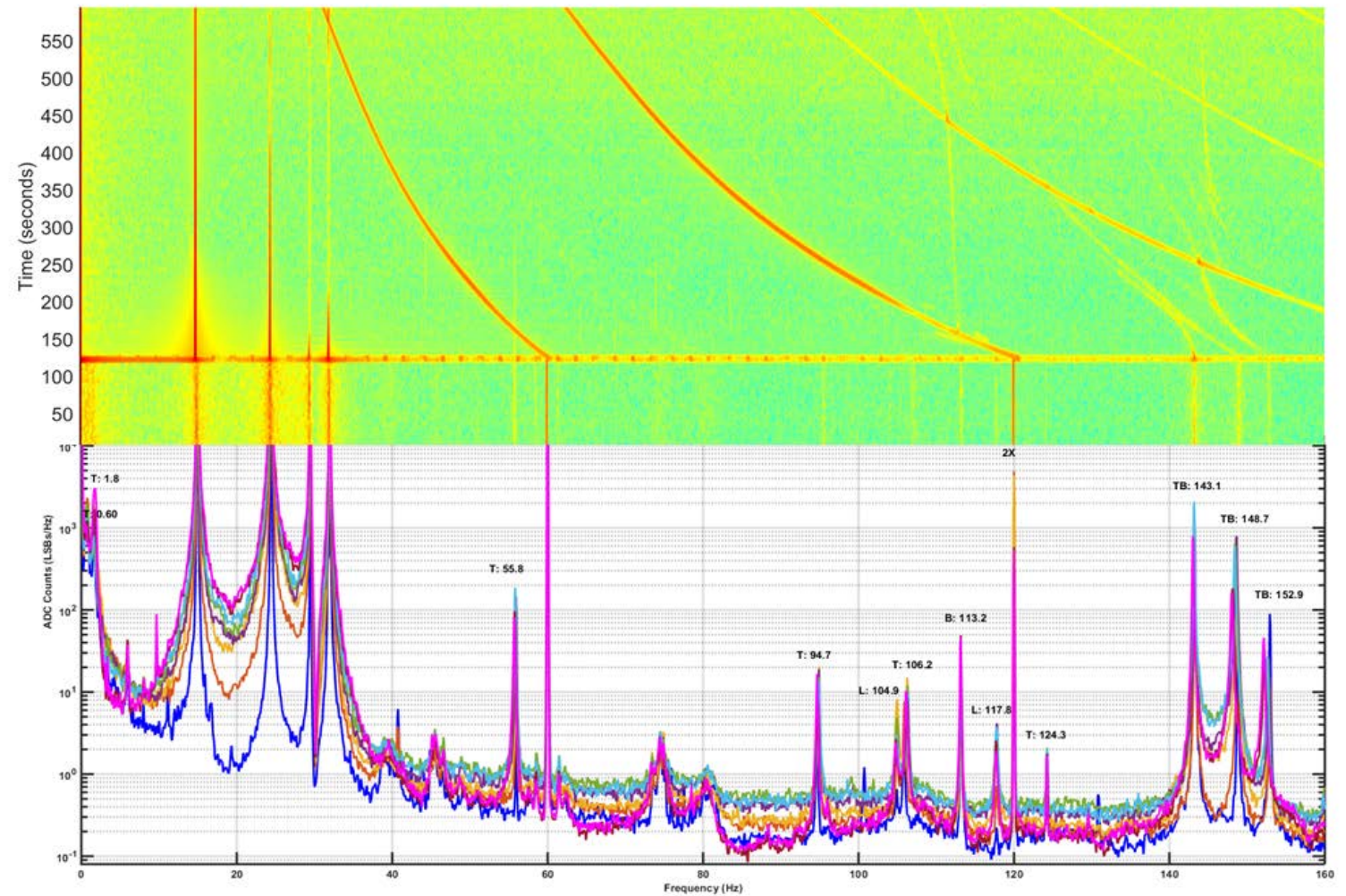
Large Fossil unit:

Here we have an overlay plot showing TDMS data along with concurrent data from a traditional "strap style" strain gage telemetry.

Here TDMS demonstrates orders of magnitude greater dynamic range and spectral resolution.



During a unit trip from load, the ramp down can be visualized as a time-frequency spectrogram. This exhibits features similar to a Campbell plot, showing speed-dependent frequency response of the LP blades as well as constant torsional frequencies of the sub-synchronous rigid body modes.



Hydro: Here we see tangential acceleration comparisons before and after a bearing replacement on a Francis pump turbine.

