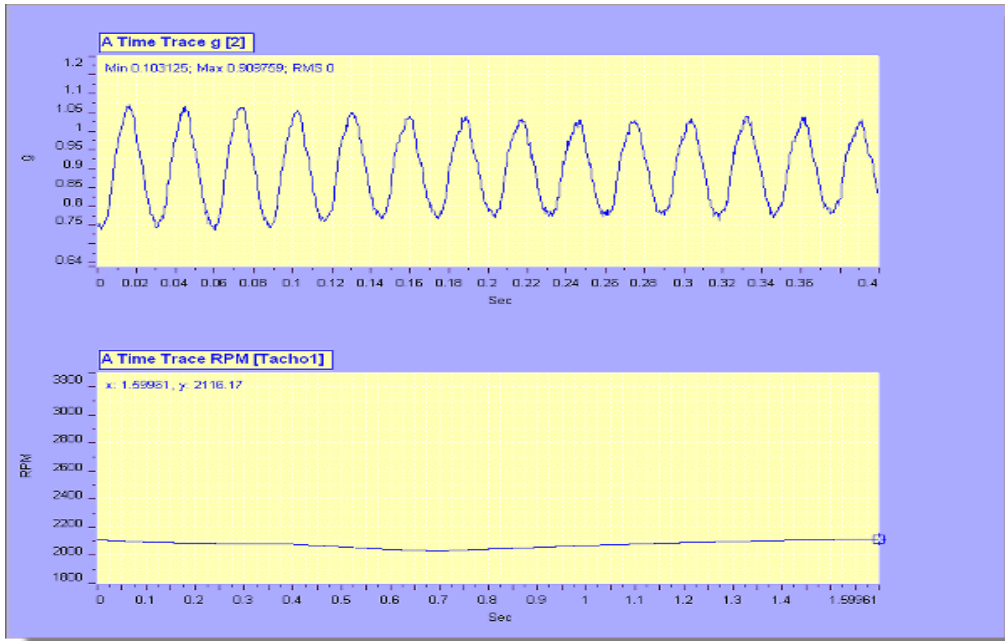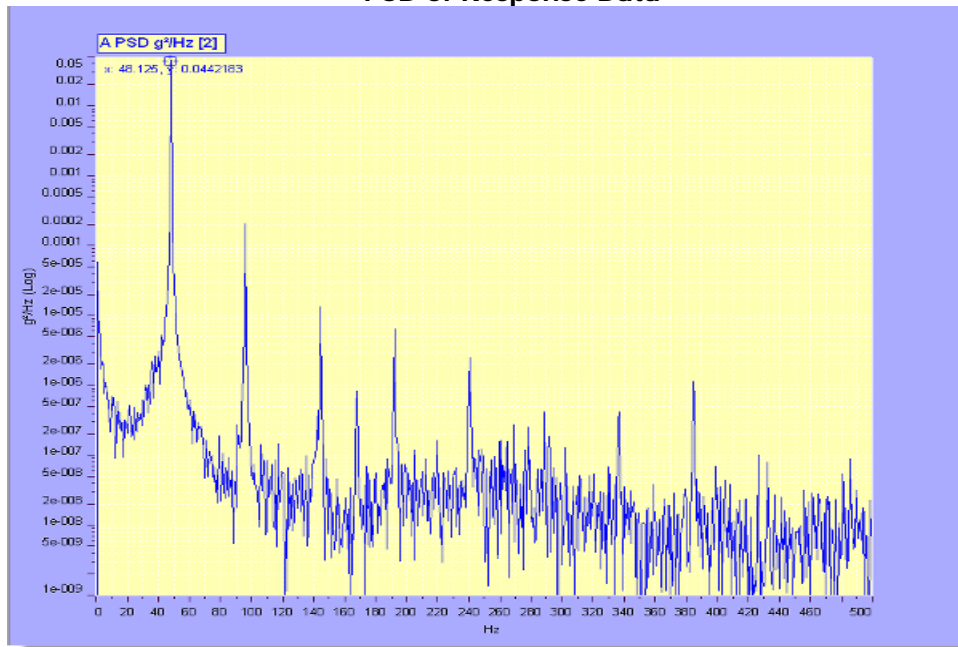# Rotating Machinery Analysis

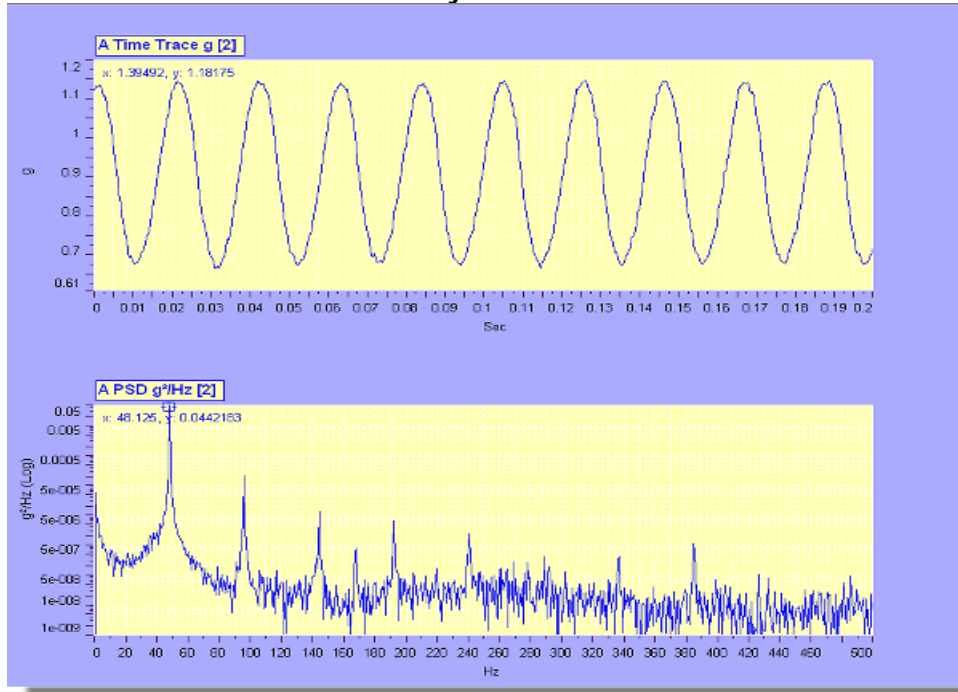## Time Trace with RPM Plot of Tachometer 1

Step 1. Accelerometer is live and measuring time histories and TACHO input is active and measuring revolutions.
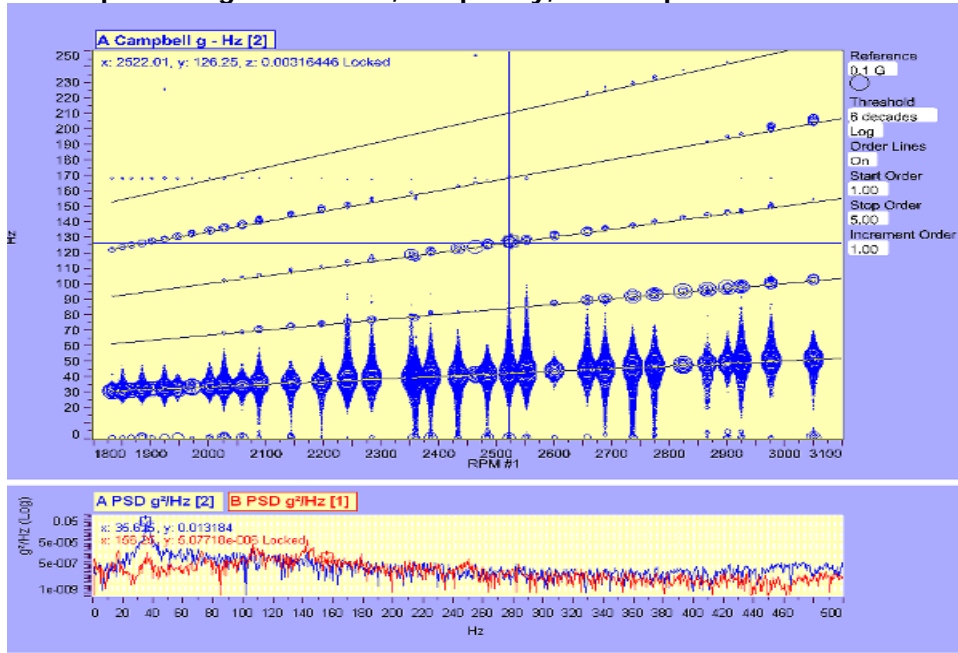
PSD of Response Data

Step 2. Next we look at the frequency content of our time history. This offers a quick look of structural response.

Time History with Resultant PSD

Step 3. Combining plot types on same page facilitates preliminary analysis of test article.

**Campbell Diagram of RPM, Frequency, and Amplitude W/Overlaid PSD**

Step 4. Troubleshooting is greatly enhanced. Ability to see structural and RPM related information with overview PSD provides big picture of system response.

## Campbell Diagram of Order Related Energy vs. RPM
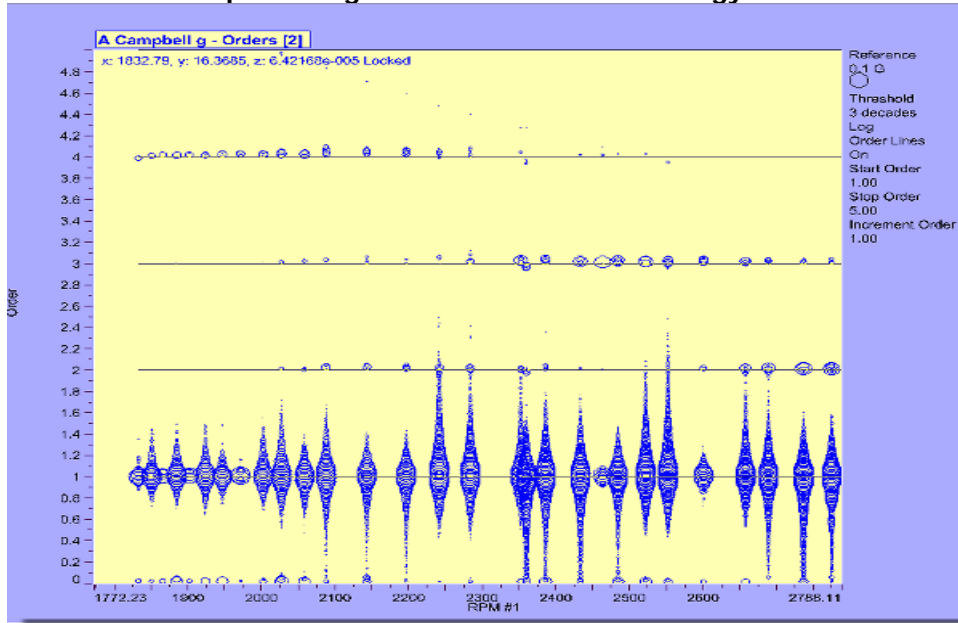
Step 5. This tool permits instant analysis of vibration levels with a view of Orders to permit system analysis of harmonic and inter-harmonic vibration.

The Entire Story
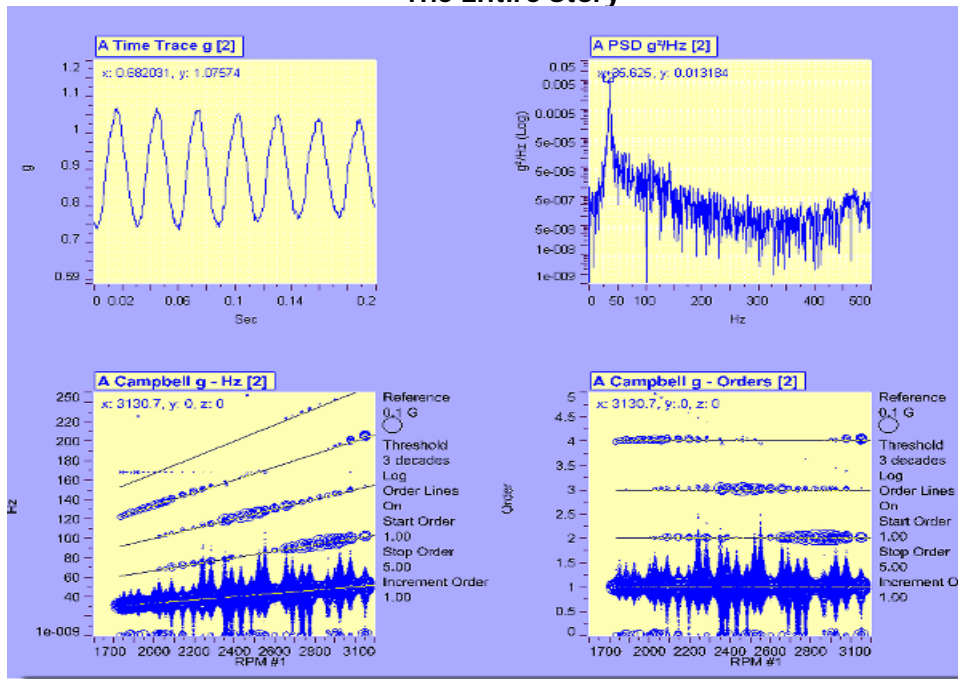
Step 6. An overview of complete system response. Stacking of pages permits ability to see each response location on its own page with full detail.

Waterfall View of Acceleration vs. Frequency
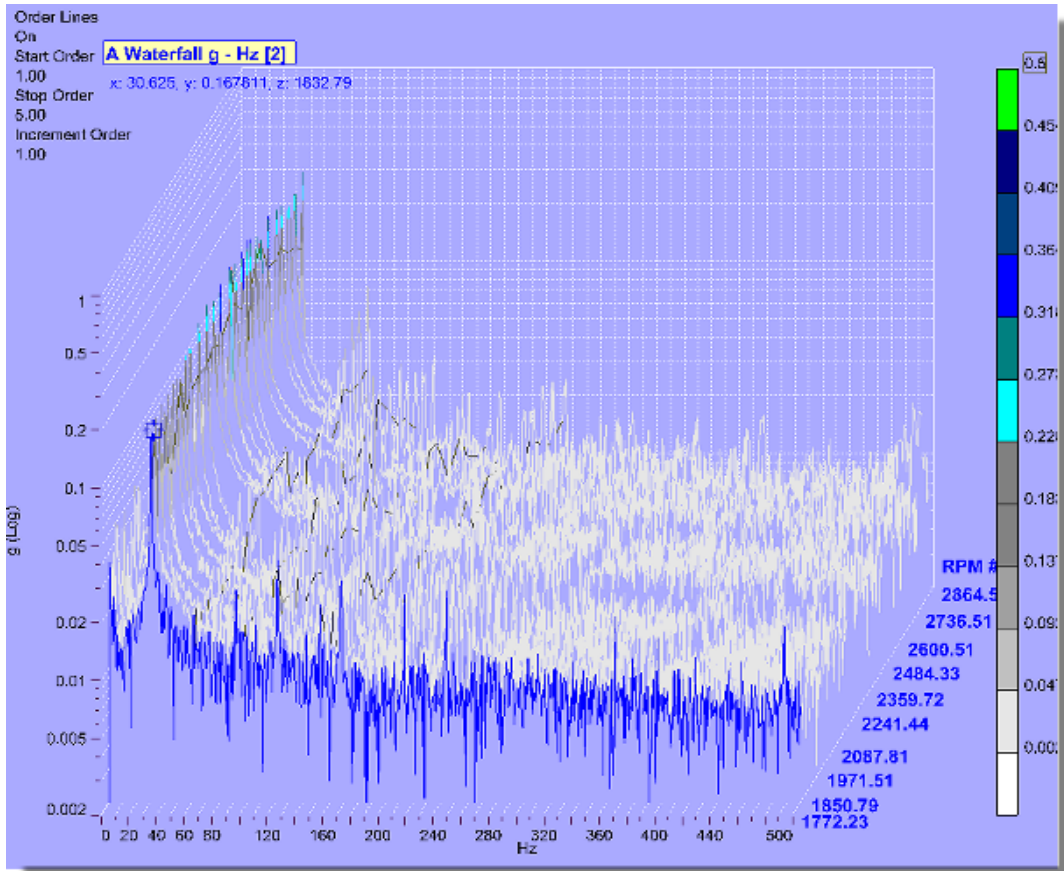
Step 7. Real-time view of acceleration allows monitoring of system response during run up and coast down operations.