Bearing LifeGuard© Features.

"This changes everything!"

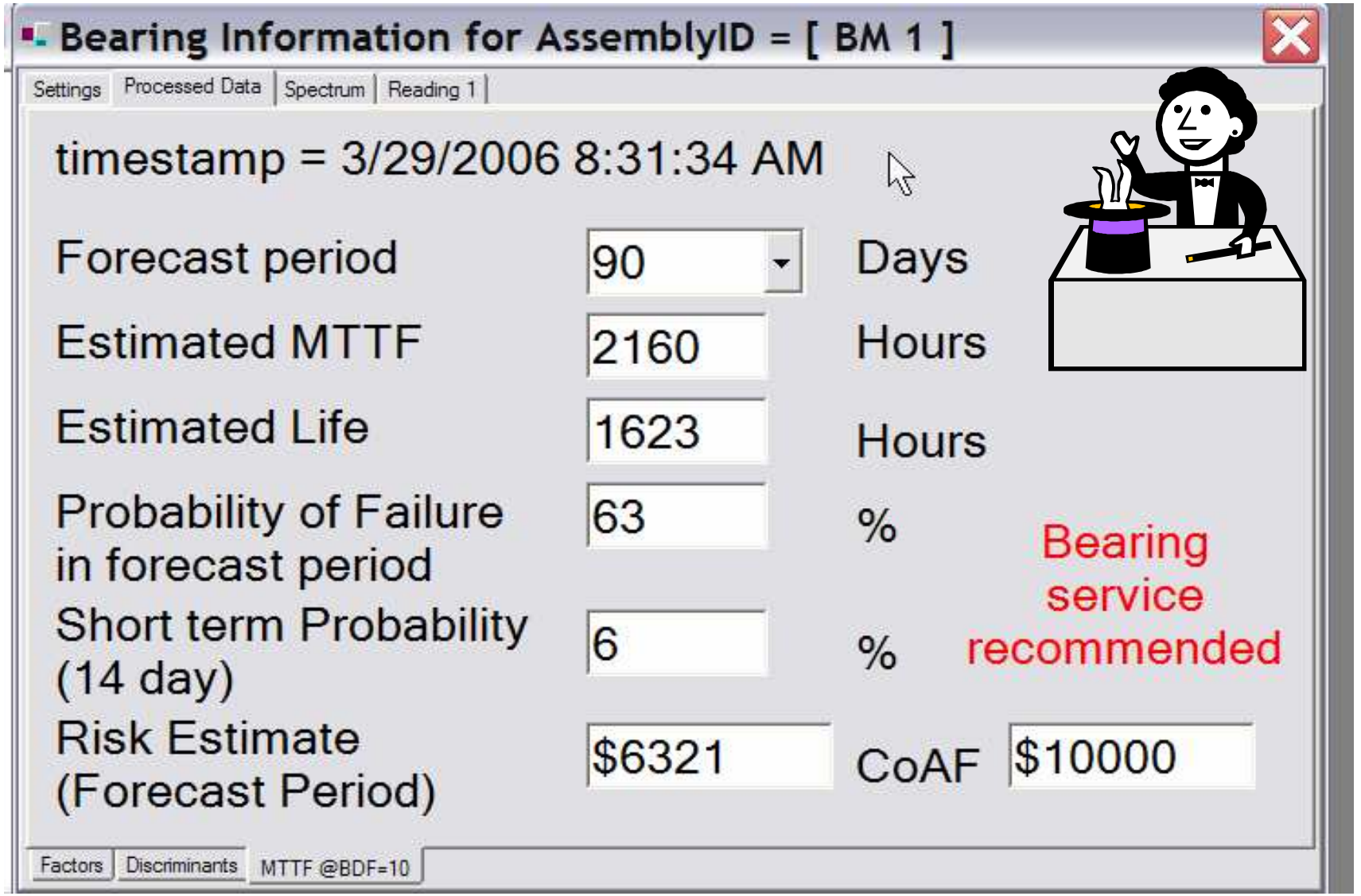
Probability of failure $f_e(t) = (1- e^{-(t-\lambda/\theta-\lambda)\ k})$

This equation too Mysterious? Read on.

- *BearingLifeGuard takes the mystery out of bearing analysis.*

IT IS NOT MAGIC: IT'S METRICS!

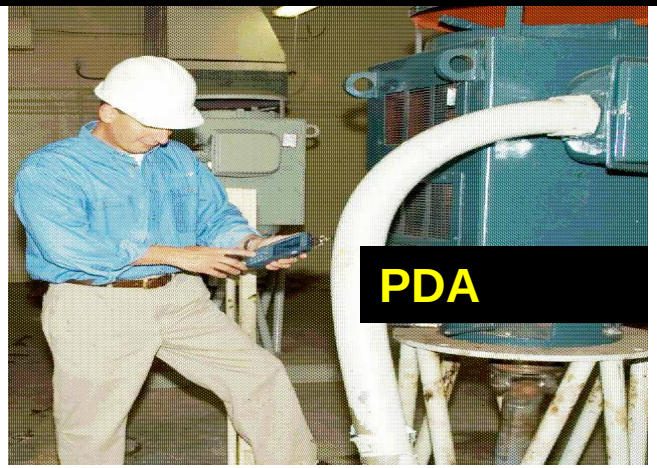
THIS IS THE INFORMATION YOU REALLY NEED.



IT'S EASY!

Typically 90% of your equipment is OK!
Focus time and money on the other 10%.

- Service person can collect data with handheld collector during routine visit and…
- Get answers on the spot and if there is trouble…
- Upload to central PC for detailed analysis or…
- Bring tablet on site to collect data and do complete evaluation and analysis.



LIFEGUARD gets it for you!

- Immediate information.
- $ Risk vs. time?
- Equipment Life vs. time?
- MTTF-mean time to failure?
- Department ‘A’ vs. Department ‘B’?
- Diagnostic trends?

- Dynamic Forces?

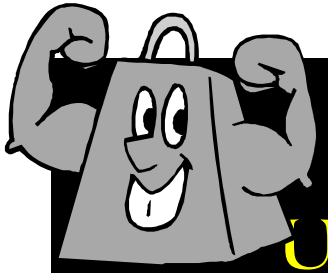
HF energy- Crest factor- Kurtosis?
Demodulation Energy/ signal ?

Time waveform? Frequency spectra?

It’s all figured out for you!

What is a Metric?

- A Metric is a normalized value assigned to the measured result of a diagnostic procedure.
- The assigned range is a value close to zero for a diagnostic result typical of a new or optimum bearing and 10 for results typical of bearings near failure.
- Metrics offer an easier method of interpreting and trending otherwise complex and widely differing data that is otherwise well correlated to bearing surface degradation.



Powerful! 6 Diagnostics

Using Multiple Discriminant Analysis! tm

Each condition assessment is derived from six diagnostic metrics.

- High Frequency acceleration
- Peak acceleration
- Crest Factor
- Kurtosis
- Envelope Demodulation
- Dynamic Force level

IT'S EASY!
Tab Selected Functions.

Bearing In[illegible]nation for AssemblyID = [BRG 5]

Settings | Processed Data | Reading: 5 | Spectrum

Timestamp = 10/16/2006 9:14:15 AM

Forecast period (days)	90	RPM	3600
Estimated MTTF (hours)	2236		
Estimated Life (hours)	2236		
Probability of Failure in forecast period	61.3 %		
Short term Probability (14 day)	5.7 %		
Risk Estimate (Forecast Perio	$6128	CoAF	$10000

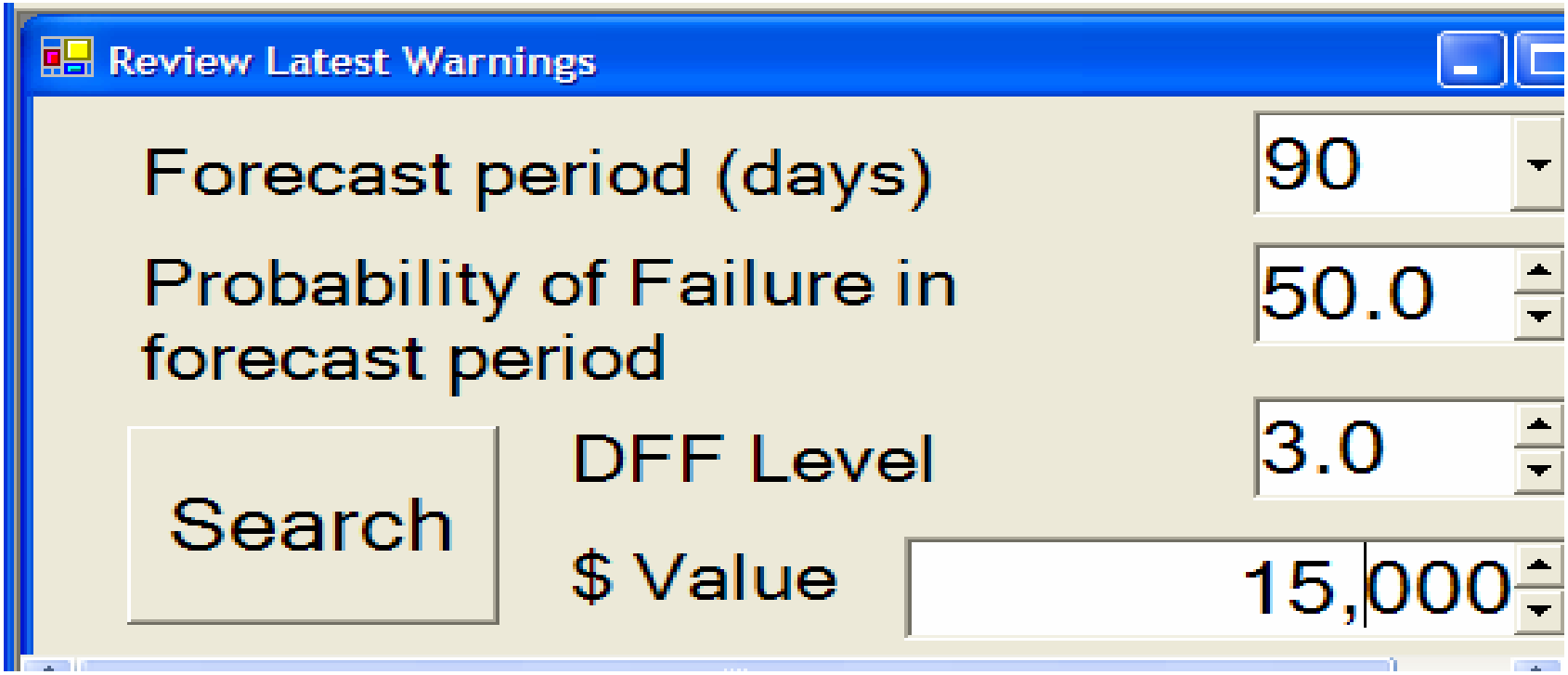
Trouble Alerts!

Bearing service recommended

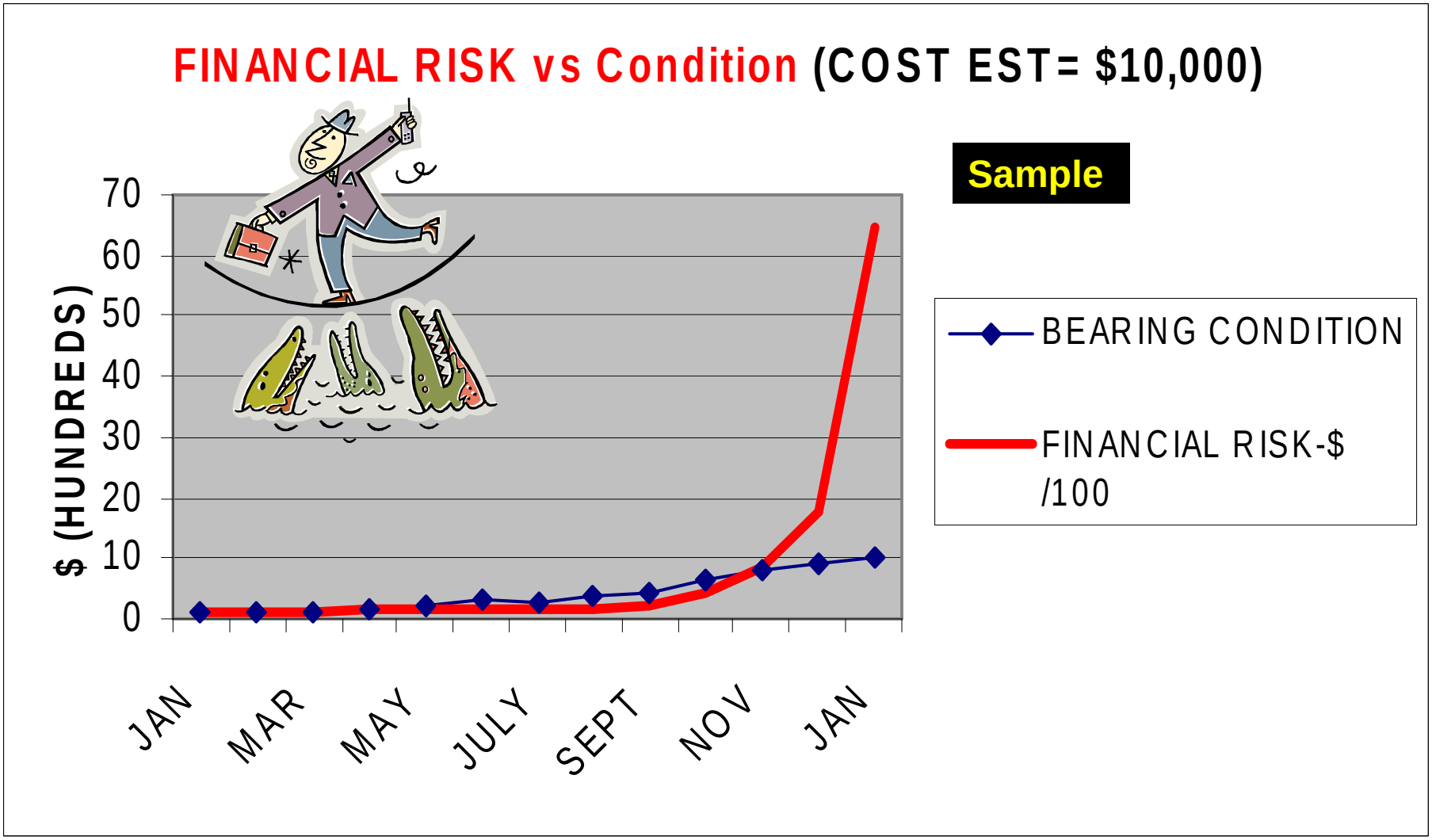
Factors | Discriminants | MTTF

Failure and Financial Risk Search information!

- Quickly find units with high probability of failure.
- -or high financial risk.
- -or life shortening Dynamic Force (DFF) levels!

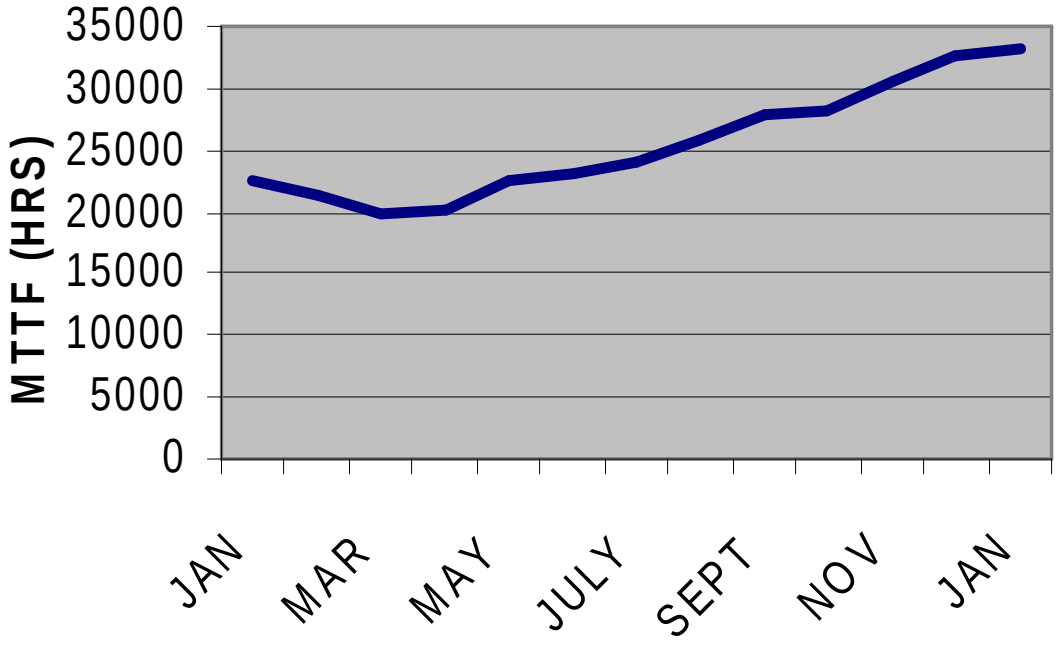


The Power of Metric Trends:
Estimate of Assembly $ Risk vs. Time

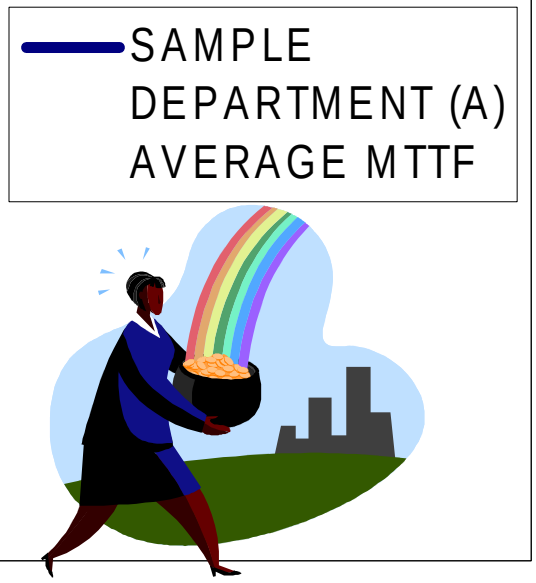


The Power of Metric Trends:
Average of all your Equipment MTTF
Life vs time

How are we doing?



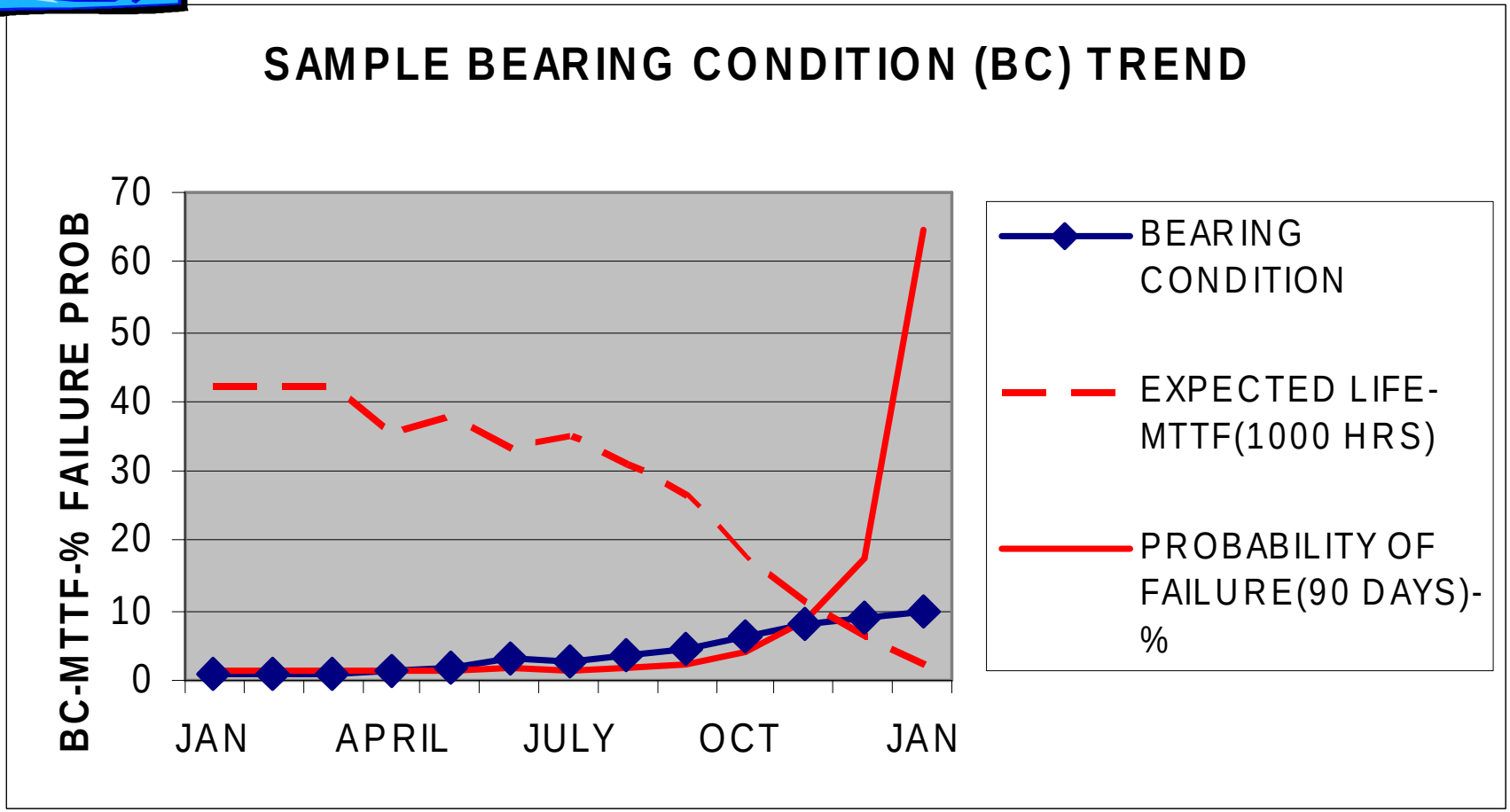
Things are getting better!



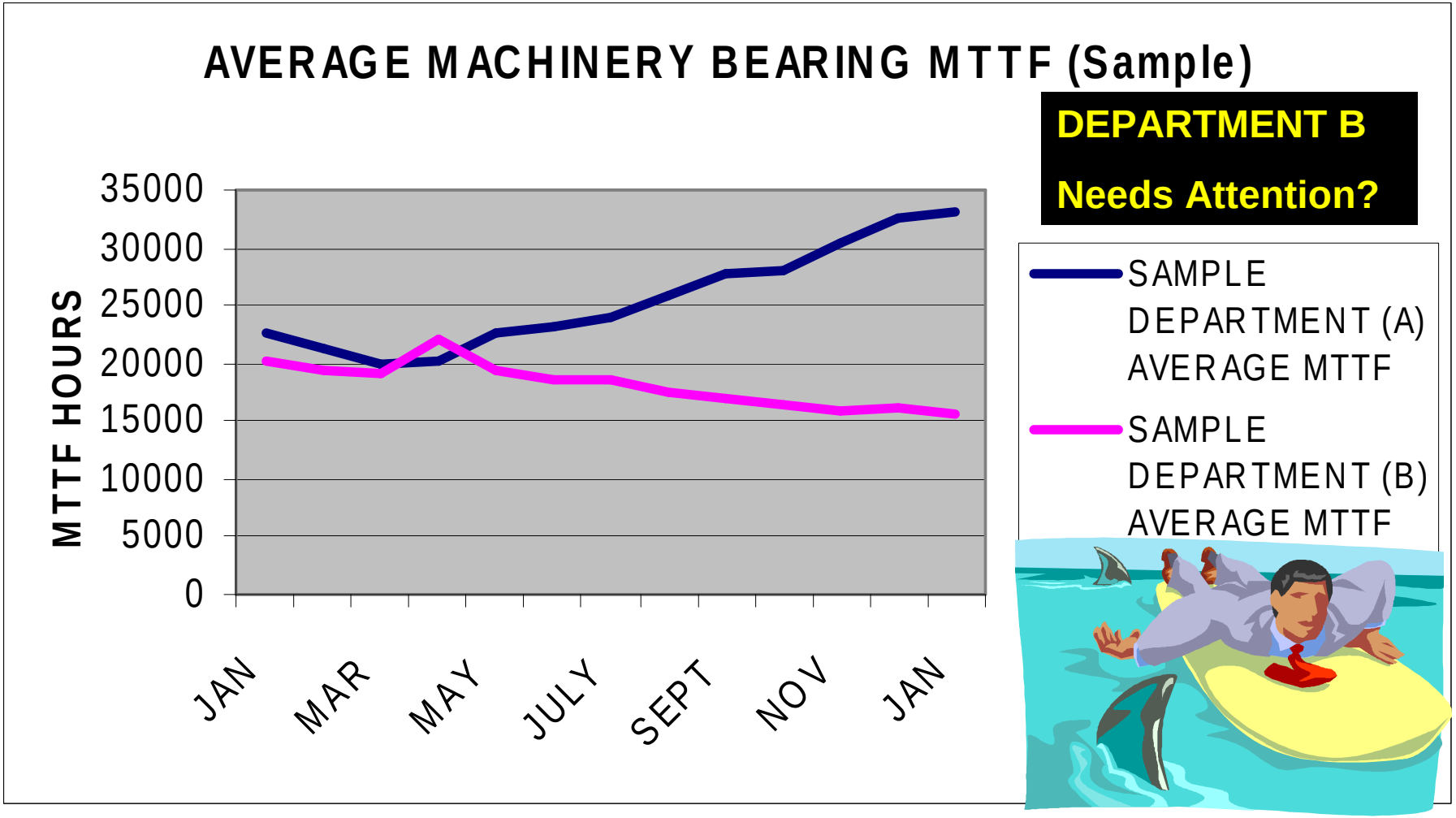
The Power of Metric Trends

Diagnostic Trends

How BC, LE & POF are related



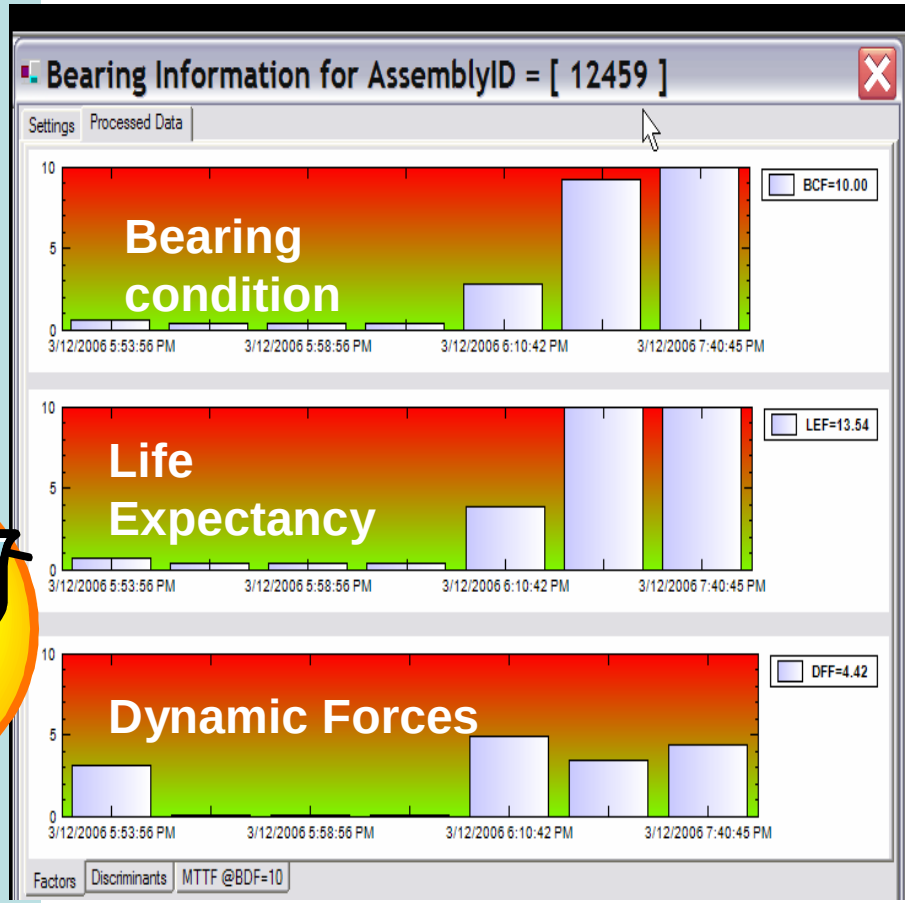
The Power of Metric Trends:
Benchmark
Department A vs. Department B



Smart! For the Analyst - Factor Trends- Condition>Life>-Dynamic Force

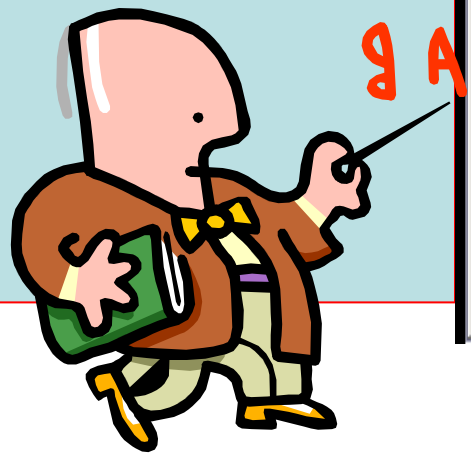
- Dated & Time stamped.
- Selectable readings
  5-14-24-or all previous.
- Metric
  <0.5 (Optimum)
  >10 (Near Failure)
- Color coded
  green-optimum
  yellow-caution
  red-danger

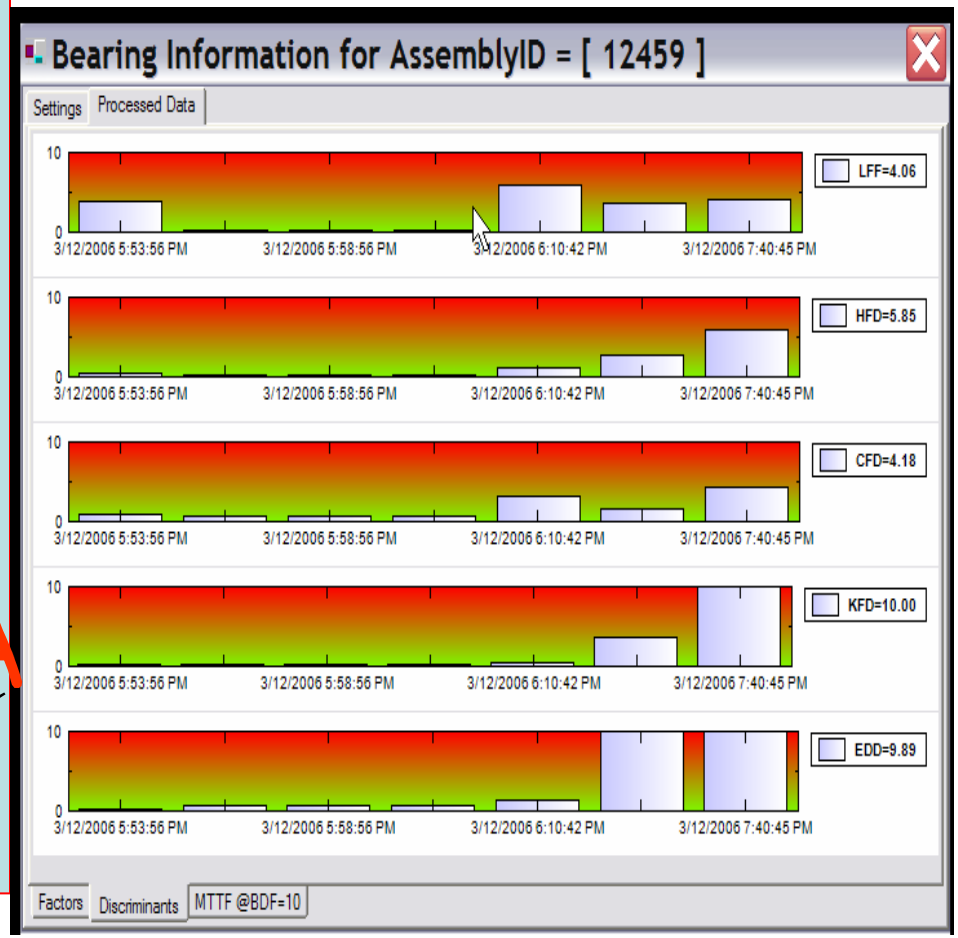
[Click on graph to expand.]



For the Analyst –Details!
Diagnostic Discriminant Trends

- DF-Dynamic Force level
- HF- Surface roughness
- CF-Peak impacts/surface roughness
- KF-Surface roughness and impacts
- ED-Short duration impacts.

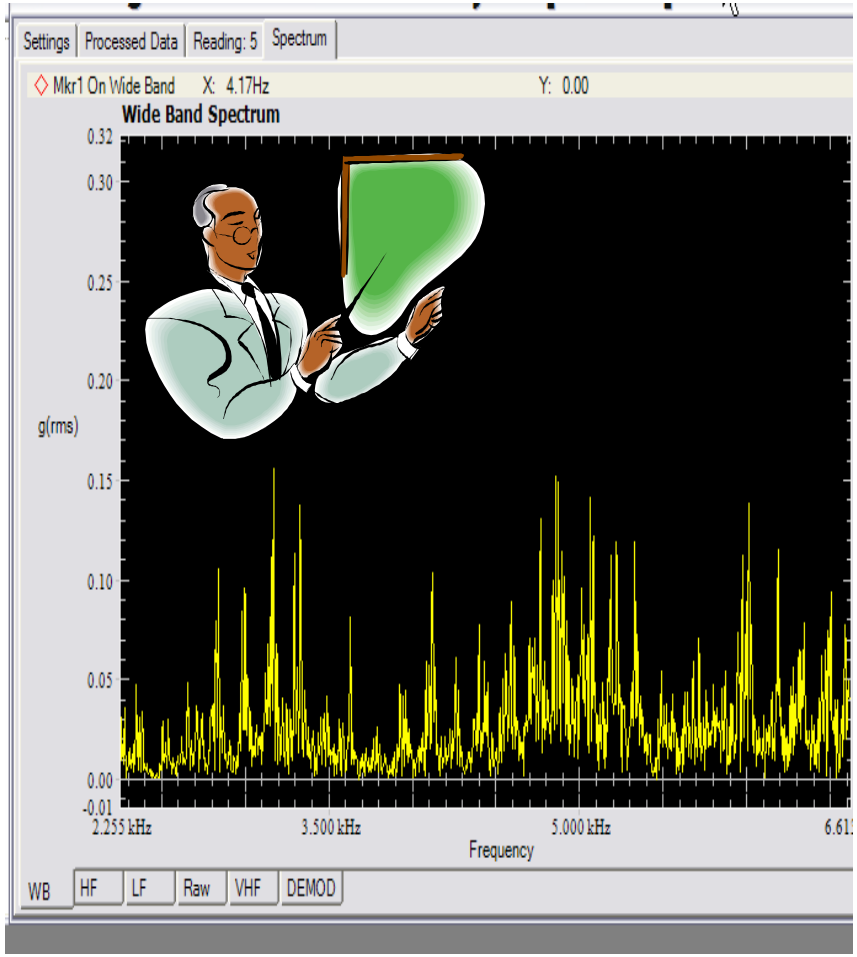




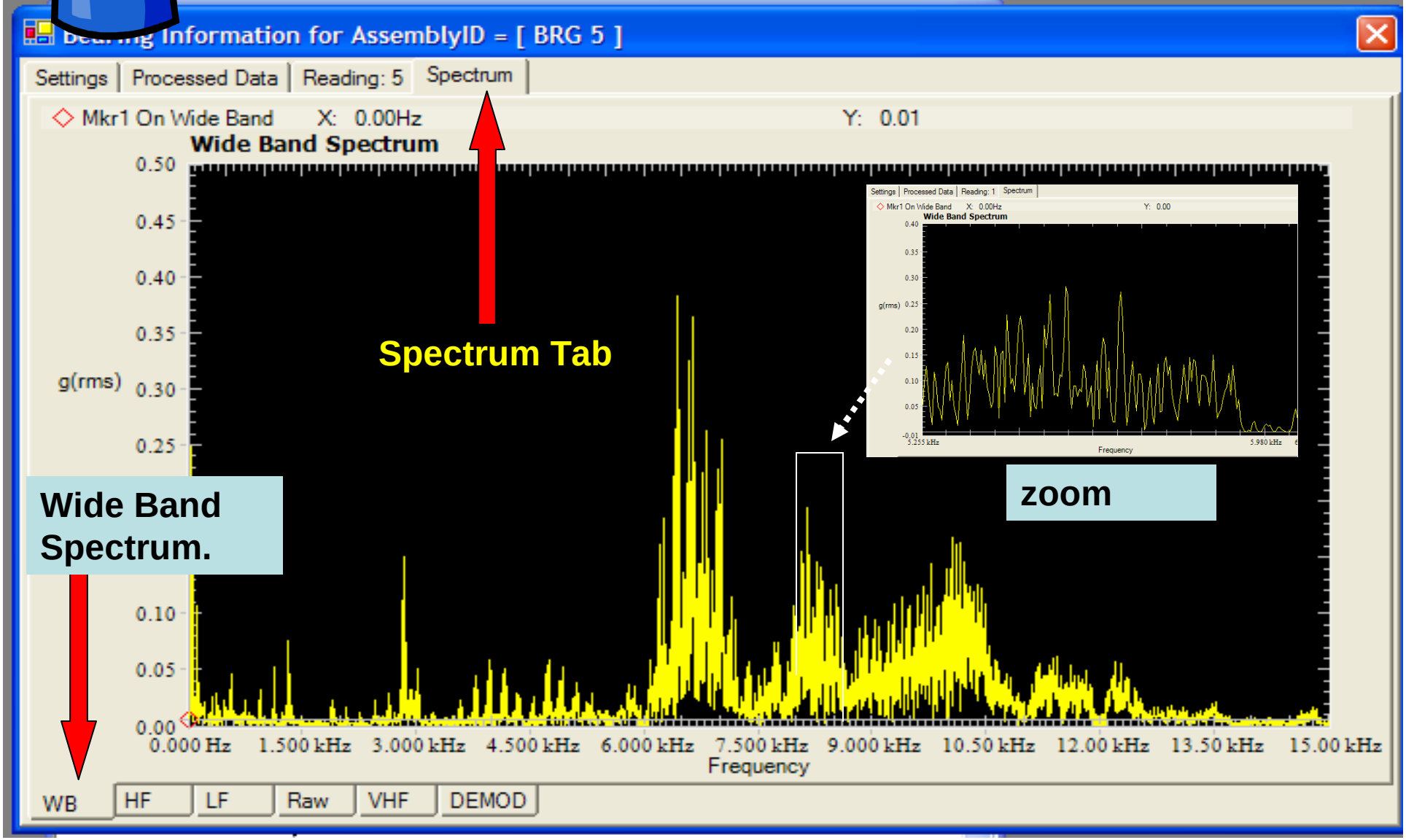
ACCELERATION SPECTRA for the Analyst.

Tab selected:

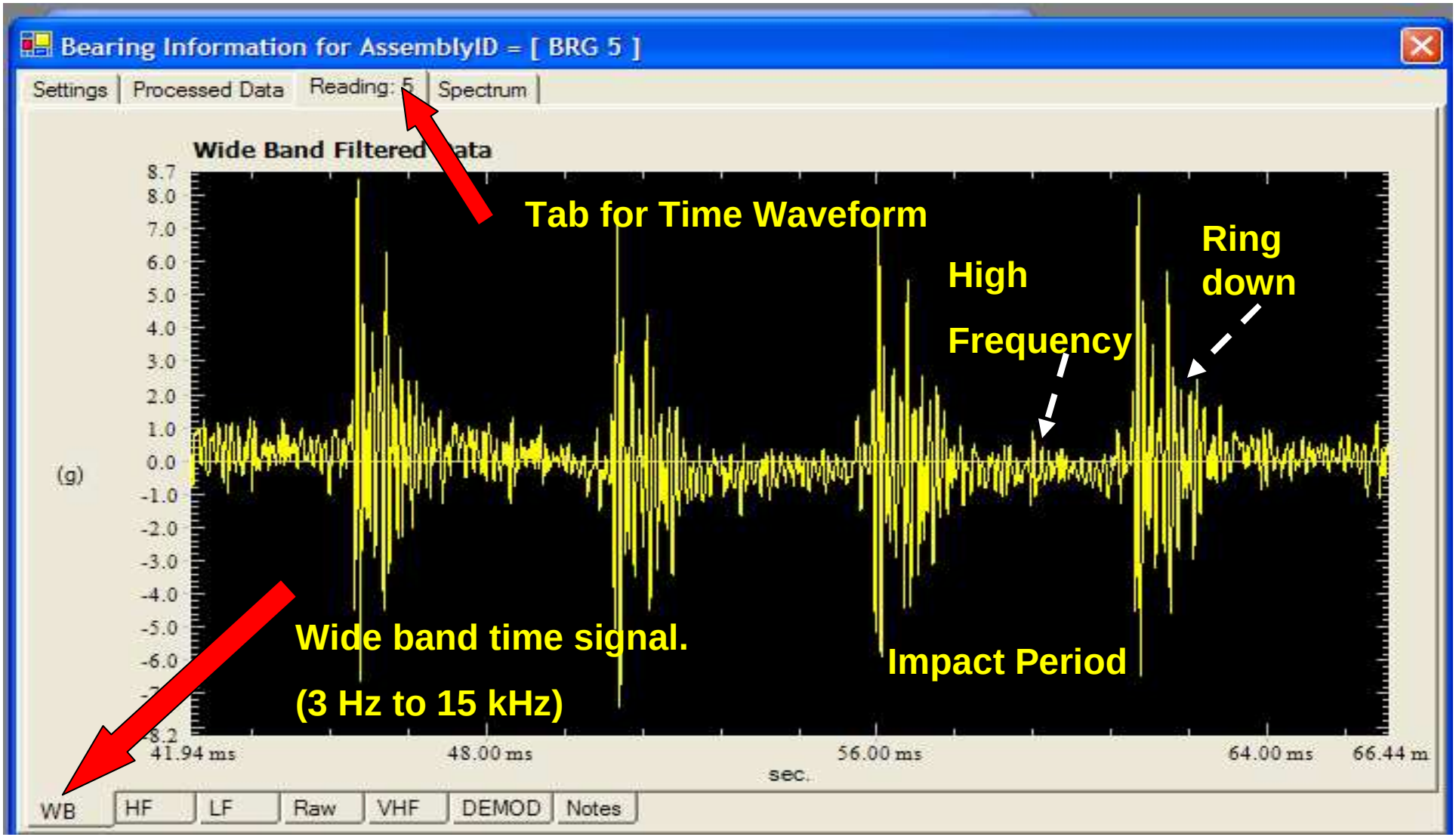
- 3 Hz to 40 k
- 3 Hz to 15 k Hz.
- 4 x run speed to 15 kHz
- 3 Hz to 4 x rotational
- Demodulated spectra
- Zoom & frequency identification



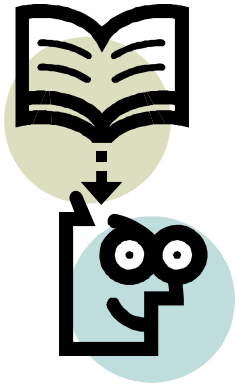
Tabs to Every Spectra!



Tabs to Every Time Waveform! Powerful ! 6 Diagnostics.



Congratulations!



Need More information?

Check Bearinglifeguard.com

Sales@bearinglifeguard.com

- This information was last updated on 12-18-2006

Individual Diagnostics
Raw Acceleration Signal for the analyst!