

Condition Based Maintenance

The Basics

What is CBM (Definition)?

- Internet Definitions

- **Wikipedia:** **Condition-based maintenance** (CBM), shortly described, is maintenance when need arises. This maintenance is performed after one or more indicators show that equipment is going to fail or that equipment performance is deteriorating.
- **DoD CBM+ Guide:** CBM is an established approach to identifying and scheduling maintenance tasks. It employs continuous or periodic assessment of weapon system condition using sensors or external tests and measurements through first-hand observation or portable equipment. The goal of CBM is to perform maintenance only when there is evidence of need. Synergy from integrating the enabling CBM+ capabilities builds upon the foundation of CBM. CBM+ continues to evolve from this original concept into the maintenance improvement strategy that is discussed in this Guidebook.
- **Machinery Lubrication Magazine:** CBM entails performing maintenance tasks, not on a scheduled interval basis (such as operating hours, miles, cycles, etc.) but rather based on data gathered from certain predictive maintenance tasks such as oil analysis, vibration analysis, thermography, or ultrasonics.

CBM Myth Busters

False

- CBM will solve World Hunger
- CBM is a result of a visit from the Sensor Fairy
- CBM can be used everywhere

Truth

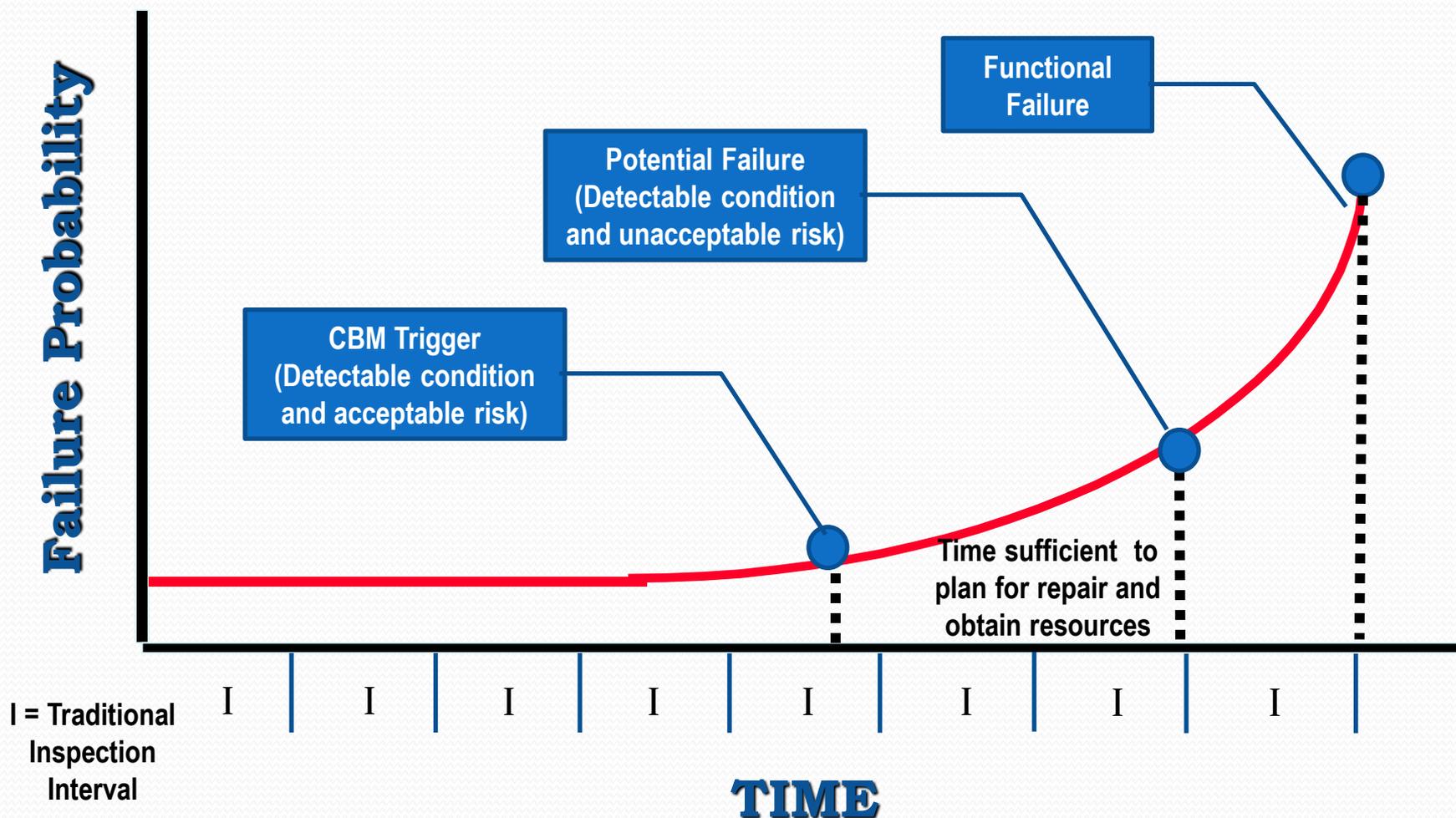
- CBM is an outgrowth of an effective RCM program.
- CBM is a cost effective solution for maintenance.
- CBM can minimize component down time.

What is CBM in Practice?

- Focuses on individual components.
 - CBM monitors the condition of individual components
- Addresses a condition indicator that monitors a primary failure mode.
 - Failure mode may be hidden or evident.
- Maintenance is tied directly to system risk.
- Moves unscheduled maintenance to scheduled maintenance.

CBM Impact on Failure/Risk Curve

Maintenance is scheduled based on system RISK



Questions

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