



## Using Information to enhance Readiness

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# Current Environment

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- Numerous and constantly changing configurations of hardware and software
- Commercial-off-the-shelf items make up larger portion of Army materiel
- Mechanic training limited to basic knowledge and skills and critical tasks
- New business systems, processes, technologies and tools on the horizon





# Information Requirements

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- Useable, accurate, timely and relevant
- Increases velocity of repair
- Enhances limited training investments
- Leverages technology proportionate to cost
- Predicts failures and increased maintenance requirements





# Issues and Expectations

Issue	Impact	How to Address
Currency of Technical Data	<ul style="list-style-type: none"><li>• IETM's use is sub optimized</li><li>• Delays in diagnosis of failure</li><li>• Wrong parts ordered</li><li>• Delays repair</li><li>• Degrades combat power</li></ul>	<ul style="list-style-type: none"><li>• Enterprise-level authoring and management tools</li><li>• Near real time updates of IETMs</li><li>• Seamless vendor product data</li></ul>
Seamless electronic business environment	<ul style="list-style-type: none"><li>• Soldiers input data by hand</li><li>• No diagnostic data captured</li><li>• No feedback to maintainer</li><li>• Added time and costs</li></ul>	<ul style="list-style-type: none"><li>• Integration/interface</li><li>• Optimize current capabilities?</li><li>• Secure communications (www)</li><li>• Continuous technology refreshment</li></ul>
Maintenance Training	<ul style="list-style-type: none"><li>• Delays in diagnosis of failure</li><li>• Delays repair</li><li>• Degrades combat power</li></ul>	<ul style="list-style-type: none"><li>• Use of augmented reality in place of video and animation</li><li>• Software maintenance skills</li></ul>
Unserviceable Management	<ul style="list-style-type: none"><li>• Unpredictable requirements</li><li>• Multiple Inspections (TI)</li><li>• More \$\$ for spares</li></ul>	<ul style="list-style-type: none"><li>• Dedicated process w/visibility</li><li>• Push of inspection data to repair facility</li></ul>

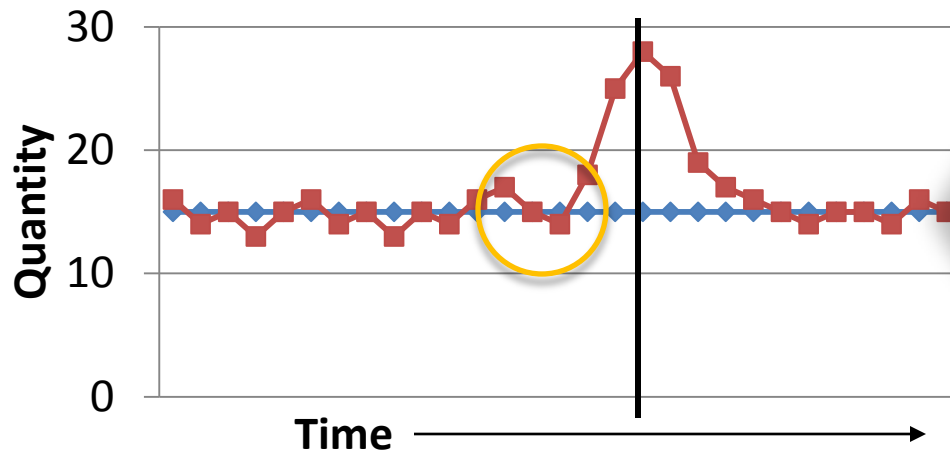
**Prioritize investments proportionate with costs**





# Moving left of the Maintenance Spike

## Maintenance Output



### Use Information to...

- Level-Load activities
- Leverage available resources
- Increase output
- Reduce lag time
- Optimize \$\$

### Field Maintenance

- Near real-time reporting
- Trend analysis
- Scheduled/Phase Maintenance
- Condition based maintenance +
- Platform Health Management

### Sustainment Maintenance

- RESET/Deployment Schedules
- Trend analysis
- In-transit visibility/Management of unserviceable assets
- Repair Cycle Float
- Accurate inspection of unserviceable materiel





# Information Challenges and Risks

Challenges	Risk(s)
Enterprise Resource Planning Systems	<ul style="list-style-type: none"><li>• Data captured to data required?</li><li>• Agility to support combat operations</li><li>• Web based application; stand alone?</li></ul>
Item Unique Identification (IUID)	<ul style="list-style-type: none"><li>• Maintenance process integration</li><li>• Feedback from engineering analysis</li><li>• Leverages enterprise level supply</li></ul>
Technical Data	<ul style="list-style-type: none"><li>• Near real time updates to IETMs</li><li>• Data Rights/Product data</li></ul>
Integrated Maintenance Environment	<ul style="list-style-type: none"><li>• Business process and IETM</li><li>• Performance, usage and failure data</li><li>• Feedback mechanism</li></ul>

**Tight integration of these products is key to success!**





# Closing Thoughts

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- New business systems, processes, technologies and tools can deliver but only with tight integration
- Constantly changing configurations of hardware and software require a robust information architecture
- Commercial-off-the-shelf items require coordination for data rights and seamless integration
- Mechanic training can be dramatically enhanced by new technologies such as augmented reality

