# Top 10 Dispatcher Application of Product Support Logistics Performance Monitor Contribution to Systems Testing

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Weapons System performance is realised through designed-in system capabilities and functions. In this context, "Dispatch Capabilities" refers to the various desired performance attributes and measures of the system, such as maximum speed, range, altitude, or weapons delivery accuracy. "Dispatch Functions" refers to the desired mission capabilities and mission scenarios that the system must be capable of executing in operational scenarios.

For example, an aircraft may have the capability to fly at Mach 2.0, but its ability to function at that speed in a real-world mission is dependent upon many other factors, among them not being down for repairs. Therefore, having reliable, durable, maintainable dispatch contribution to overall sustainment is essential to achieving functional system performance.

Performance cannot be considered separate from the other elements of operational effectiveness – they are linked by dispatch sequence. The system capabilities and functions represent the desired mission capabilities as a total package, together with the sustainment objectives and the desired logistics footprint reductions.

Formalised performance dispatch with the warfighter provides the objectives forming basis of performance-based logistics effort. A focus on a few outcomes measures— such as 1) weapon system availability, 2) mission reliability, 3) logistics footprint, and 4) overall system readiness levels—will lead to more effective solutions.

The next task for Site Visit Executive is to measure how well dispatch objectives are being achieved. By applying measures of readiness and supportability performance balanced against costs and schedules.

Linking dispatch assessment of metrics to existing warfighter measures of performance and reporting systems is good idea. Many existing logistics and fiscal metrics can be related to top-level warfighter performance outcomes. These include 1) requisition fulfillment rate, 2) customer wait time, 3) ratio of supply line costs to sales, 4) maintenance repair turnaround time, and so on.

In structuring the metrics and evaluating performance, it is important to clearly delineate any factors that could affect performance but are outside control of dispatch support.
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While objective metrics should form the bulk of dispatcher evaluation of support provider

performance, some elements of product support requirements might be more appropriately evaluated subjectively by the warfighter and dispatchers.

This approach allows some dispatch flexibility for adjusting to potential support contingencies. For example, there may be different customer priorities that must be balanced with overall objective measures of performance.

Desired capabilities are determined by dispatch priorities. Priorities reflect the stakeholder value system that drive the inevitable tradeoffs that the system design must undergo, balancing performance, availability, operations and support, and Service Life costs. The level of operational effectiveness achievable is predicated upon the allocation of resources towards these priorities.

Maximising weapon systems operational effectiveness requires dispatch evaluation of Trade-offs between 1) system performance, 2) availability, 3) process efficiency, 4) dispatch behavioural factors, and 5) operational cost.

To support such trade-offs, the 'cause-and-effect' of dispatch behaviour must be made explicit between design decisions and system operations and support. Achieving effective weapon system logistics support is process of designing in system performance to achieve warfighter capability.

Evaluating maturity of product support logistics services provides structured, high-level assessments of logistics status, progress, and proficiency to identify areas for improving performance and reducing support costs. Repeatable procedures allows dispatchers to compare process/technologies with targeted logistics operation to determine where to allocate resources.

To reach the highest levels of product support service to warfighter customers sets of characteristics and evaluation criteria must be created for use as basic elements to characterise product support logistics proficiency: 1) work force strategies, 2) resource allotment 3) tech enablers 4) Logistics process effect on performance.

Closer integration between acquisition and product support systems requires an Effective Dispatch System concept to achieve DoD objectives. Maximising operational effectiveness requires proper dispatch attention and balance among factors such as disproportionate allocation of resources and attention to one area, i.e. performance, can lead to imbalance in others, i.e. process efficiency logistics, and to unaffordable Service Life Sustainment Costs.

Test/Evaluation of Military Systems and Equipment is conducted to support assessments of system performance characteristics. These assessments are an integral part of the decision

process essential to acquisition phases.

In creation of many equipment tracker application systems, testing has become controversial issue. Questions that arise include the following: 1) How much testing is enough? 2) Is the product ready for testing? 3) Are requirements/assessment parameters adequately defined? 4) Does Testing effort represent minimum time & resource programme consistent with useful results? 5) Have operational testing phases been integrated to form productive evaluations?

Here we present concepts/techniques for creating test plans to verify previously established system suitability for product support requirements have been achieved. Of course, test resource availability may be compromised by cost, schedule & operational urgency constraints. In such cases, other test plans representing most timely and cost-effective approach consistent with these constraints must be considered.

In any event, it is essential all participants are made aware of critical product support issues being addressed as well as acquisition risks present in conducting limited test programmes. Smart design of good testing programmes is no accident. It requires deep dives and planning in addition to complete concept master of testing techniques, test system and operating scenarios.

Test results must also support creation of realistic performance estimates for entire product support work order capacity runs after being tested in limited amounts of systems.  Here, utility of modern equipment tracker application concepts we have presented is apparent. We have advanced the potential for command to move forward equipment tracker application concepts subject to test design and performance assessments.

In short, these product support concepts, when combined with common sense and technical expertise, formulate basis for all sound testing programmes.

### 1. Dispatch Capabilities:

Set of dispatch status updates to equipment or equipment classes committed, available, or unavailable for a defined time.

### 2. Dispatch Functions:

Dispatch action or activity proper to equipment; the purpose for which something is designed or exists

### 3. Dispatch Priorities:

Condition of being more important dispatch than other equipment so utilised first.

### *4. Reliable Dispatch:*

Measure of the probability equipment will perform its intended function for a specified dispatch interval under stated conditions.

### *5. Maintainable Dispatch:*

Dispatch correction of defects or their cause, repair or replace worn-out components without having to replace still working parts

### *6. Supportable Dispatch:*

Degree of characteristic assign, design & functions of equipment meets dispatch standards

### *7. Dispatch Production:*

Process of making equipment used for consumption by combining dispatch resources to generate output.

### *8. Dispatch Capacity:*

Maximum amount of work performed capable of completing in defined dispatch period

### *9. Dispatch Operations:*

Critical output not to be interrupted over dispatch time period so mission success is ensured

### *10. Dispatch Logistics:*

Process of planning, implementing, and controlling effective dispatch of services/information from point of origin to utilisation