

Brig. Gen. R.A. Bassford, deputy commanding general of the 88th Regional Support Command (RSC), speaks with Eric Tissue, supervisor of the 88th RSC Area Maintenance Support Activity Shop 165, during a site visit to Monclova, Ohio, on Jan. 29, 2016. The 88th RSC operates 47 maintenance shops across 19 states, providing support to more than 600 Army Reserve units and performing maintenance for over 50,000 pieces of equipment. (Photo by Sgt. 1st Class Corey Beal)



Operational Logistics Planner for a Leaner, More Capable Expeditionary Army

■ By John Reith, Jennifer Van Drew, and Teresa Hines

Logistics planning is an art as well as a science. Logisticians from the tactical through theatre levels require access to planning factors and data so that they can develop sustainment plans and calculate estimates. The complexity of national planning tools runs the gamut from paper, pencils, and printed reference guides to highly complex, automated computer tools. Automated tools free sustainment planners from using calculators and managing large, unwieldy spreadsheets and allow more time for analysis.

The Army's potential future operational environments include a broad spectrum of operations, from decisive action to homeland defense to disaster relief and humanitarian assistance. How will the Army plan logistics for the Army of 2025, which will be leaner, expeditionary, more agile, and capable of executing

a broad range of missions? Can logistics planning evolve to keep pace as the Army accelerates changes to organizational designs and technology and adapts to the new Army Operating Concept?

The Planning Data Branch

The Combined Arms Support Command's (CASCOM's) Planning Data Branch (PDB) has an answer for how logistics planning can keep pace with the Army's organizational and technological updates. The PDB has the mission to develop Army logistics planning factors and data in accordance with Army Regulation 700-8, Logistics Planning Factors and Data Management. These factors are disseminated to the Army and the joint community for planning use.

The PDB has developed specific protocols for collecting and an-

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The Combined Arms Support Command Planning Data Branch disseminates logistics planning information to the field through the simple-to-use, standalone program, Operational Logistics (OPLOG) Planner.

analyzing data submitted by various proponents and disseminating that information to users. Also, the PDB develops current planning factors for every class of supply and is constantly looking to the future to be ready for changes.

A critical use of the PDB's data is to estimate required workloads and determine the quantity and mix of supply, transportation, and maintenance units necessary to sustain major ground campaigns. As a part of the Total Army Analysis process, these results provide information for the program objective memorandum, a key part of the Army's budget process.

For the joint community, the PDB's data is used in the logistics factors file, which feeds the Joint Operation Planning and Execution System. This data is used to monitor, plan, and execute mobilization, deployment, employment, and sustainment activities associated with joint operations.

OPLOG Planner

The major avenue that the PDB uses to disseminate the logistics planning factors and rates to the field is the Operational Logistics (OPLOG) Planner. OPLOG Planner is a simple-to-use, annually updated, standalone program that helps units estimate how many supply and transportation assets are needed to perform a mission. The program asks the user questions and, based on the answers provided, produces estimates for the logistics needed to meet mission goals.

For each class of supply, the user can determine the total weight and number of pallets required for a mission. OPLOG Planner incorporates all standard requirements codes (SRCs) and allows the user to customize the quantity and type of equipment needed.

OPLOG Planner also allows the user to build a modified table of organization and equipment (MTOE) and provides custom estimates for consumption. All reports

can be easily exported in multiple formats for use in staff planning.

Background of OPLOG Planner

The information within OPLOG Planner started with data from Field Manual (FM) 101-10-1/1 and 101-10-1/2, Staff Officers' Field Manual: Organizational, Technical, and Logistical Data (Volumes 1 and 2), published in 1987. However, in 1994 the Army G-4's director of plans and operations signed a memorandum identifying the FMs as obsolete, making the planning data in them no longer approved for use.

A series of attempts to produce an automated replacement for the FMs continued through 2002. It was then that an operations research analyst in the PDB designed a Microsoft Access database with a Visual Basic for Applications user interface, resulting in the first Microsoft Windows-based version of OPLOG Planner.

By 2008, it became apparent that the capabilities of the database would soon be exhausted, so the PDB sought the assistance of the Communications-Electronics Command Software Engineering Center (SEC). With the programming support from the SEC, OPLOG Planner became a simple-to-use, fully-automated, executable, standalone program.

Factors and Data Sources

OPLOG Planner uses planning factors and methodologies that are approved by the Army G-4 and collected, developed, disseminated, and archived by the PDB. The raw data used to develop the logistics planning data and factors starts with a data call to the specific class of supply's data proponents. The raw data comes from a variety of sources—mostly from standard Army management information systems—that describe supply transactions during current operations.

For example, the PDB receives the name, nomenclature, and national item identification number of class

IX (repair parts) that are demanded daily. This information is then processed and made available in OPLOG Planner so that users can develop class IX requirements.

Inputs to planning data are not confined to standard Army management information system data. Data from other sources include the following:

- Monthly theater population data provided by the J-1 for military and Department of Defense civilians and by the J-4 for contractors.
- Equipment usage profiles (EUPs) provided by Training and Doctrine Command or command table of organization and equipment (TOE) developers, which impact class III (petroleum, oils, and lubricants usage). Each EUP is updated to reflect the total idle hours, the total hours and kilometers traveled each day, and the percentage of travel on primary, secondary, and cross-country surfaces.
- Characteristic data (weight, cube, essentiality code, subclass, and cost) provided by the Defense Logistics Agency and obtained from Federal Logistics Data or commercial sources during research.
- Center for Army Lessons Learned insights on the use of classes of supply in active theaters.
- Equipment quantity in theater provided by the U.S. Central Command and U.S. Army Central.
- Army and joint doctrinal and regulatory information on various classes of supply, the military decisionmaking process, and the development of orders.
- Force structure—a specific TOE update or consolidated TOE updates—provided by the Force Management Support Agency, Army G-3/5/7 (operations and plans), for use in developing unit specific rates.

Significant research is done to ensure that the data is as accurate as possible. The data must pass several

specific checks. Additionally, there are common sense tests. For example, the data may suggest that a pair of boots weighs 50 pounds, but common sense would prompt an operator to examine that information for an error.

Missing data is also researched to complete data sets. When missing data cannot be found, such as with nonstandard or new equipment, surrogate data (from a similar existing item) is used to provide a temporary solution.

Continual coordination between the PDB and the data proponents is key to the process. Data on supply requisitions is collected throughout the year. More esoteric data such as EUPs and fully mission capable rates are collected on an annual or semianual basis.

Once the rates are developed, the PDB does a significant amount of sensitivity analysis to ensure the integrity of the product. The PDB and the data proponents work together to analyze the data output. The resulting factors, methods, and data are approved by the Army G-4 annually.

Keeping Pace

Currently, the PDB receives and processes the consolidated TOE update annually. This captures the new organizational designs as well as any new pieces of equipment. The planning factors also reflect updates in technology, specifically with the bulk class III consumption rates.

Logistics planning factors are collected annually and processed every two years. And as the Army adapts to new operating concepts, they are captured in the EUP updates, which are currently collected and processed every two years.

OPLOG Planner is updated and a new version is released annually. However, the planner allows users to modify and customize their experience and incorporate changes to data within the program before a new release is published.

A user can also estimate for commercial off-the-shelf equipment using surrogate data already in

OPLOG Planner and then modifying the EUP to reflect the commercial off-the-shelf estimates.

The OPLOG Planner is a dynamic and ever-changing tool. As the Army changes, the data behind OPLOG Planner will continue to change and support the needs of Army logisticians.

Not only is the data within the tool updated to reflect the most current factors and rates, but the tool is also modified based on future Army estimates and comments from the field. Users can contact the PDB with suggestions or requests regarding additional data that would be helpful. This constant improvement allows OPLOG Planner to remain a relevant tool for the future Army.

Users can download OPLOG Planner and other planning tools from Army Knowledge Online at <https://www.us.army.mil/suite/files/38799138> (for OPLOG Planner) and <https://www.us.army.mil/suite/files/39242771> (for additional tools). For more information or help with OPLOG Planner, users can contact the PDB team at usarmy.lee.tradoc.mbx.oplog@mail.mil.

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