

Show Me the Data! Analysis in Maintenance Manpower Utilization

CW3 Scott Reid, Medical Service Corps

The Army has invested more than 10 years and billions of dollars in integrating the Global Combat Support System – Army (GCSS-Army). Maintenance personnel are often mismanaged and fail to fully leverage technological capabilities, representing a culture that contradicts Army leadership doctrine and the ethical obligation to ensure Soldiers' time and talents are not misused. To maximize Army readiness, leaders must embrace data-driven manpower management in GCSS-Army. Army principles and ethical obligations established in doctrine ensure proper use of management systems. This article emphasizes the doctrinal and ethical foundations for accurately implementing and reporting manpower utilization to support data-driven decisions.

Doctrine, Leadership, and Ethics

The Army Materiel Maintenance Policy (AR 750-1) provides a single standard and regulatory foundation for all maintenance matters. It defines and describes doctrinal terms for leaders to follow and understand in areas of maintenance. As professionals, we have a responsibility to uphold the five characteristics of the Army profession described in ADP 6-22: trust, honorable service, military expertise, stewardship, and esprit de corps (Headquarters, Department of the Army, 2019). Maintaining accurate records for analysis supports the characteristics defined in ADP 6-22. Mission Command (ADP 6-0) establishes disciplined initiative and is critical to creating a shared understanding between Commanders and maintenance managers (2019). A culture shift toward accurate reporting and data analysis began with the integration of systems like Vantage and Maven. Accurate reporting in the system of record leads to accurate real-time operational status and unit status reporting. Continuing to improve practices with an analytical mindset across maintenance organizations is crucial to ensuring Commanders receive the information they need for effective decision-making.

Defined Data Analysis

Assigned utilization and available utilization are two key terms defined in Army Maintenance procedures for implementing manpower utilization (DA PAM 750-1, 2023). Assigned utilization measures the percentage of direct hours from total work hours (DA PAM 750-1, 2023). Available utilization measures the percentage of direct hours from available work hours (DA PAM 750-1, 2023). For clarity, assigned utilization is the percentage of work completed on equipment relative to total work hours in the shop. In contrast, available utilization is the percentage of work completed on equipment relative to available work hours in the shop. For example, a maintenance technician who works 25 hours on equipment in a 40-hour week but is only available for 30 hours; the technician's assigned utilization equals 62.5%, and available utilization equals 83.3%. Doctrine only requires available utilization to be greater than or equal to 50%; therefore, the technician met the requirement. Although only available utilization requires a minimum metric, both are crucial for manpower management.

Current Data Analysis

CASCOM's sustainment enterprise analytics (SEA) system provides the manpower utilization metrics of Army maintenance personnel. The data feeds from GCSS-Army to the Army Vantage data analytics system. Data from November 2025 shows available and assigned utilization of 14,123 ground, medical, and aviation maintenance personnel. The data indicates that 10,627 personnel improperly entered time sheet data into GCSS-Army, equating to 75% of maintenance personnel failing to account for their time

accurately. Upon analysis of the data, maintenance personnel failed to enter timesheet data for a full 40-hour week each week in November.

So What?

Entering timesheet data for a 40-hour week into GCSS-Army is crucial for proper personnel accountability. Assigned utilization reflects personnel's productivity over the entire work week. In contrast, available utilization only shows that a technician entered time sheet data into GCSS-Army. For example, a maintenance technician worked on equipment for 8 hours in a 40-hour week but was only available for 10 hours in the shop due to taskings and appointments. Assigned utilization equals 20%, while available utilization equals 80%. The technician met the 50% available utilization requirement but was not very productive throughout the week.

Is it important to report or analyze assigned utilization when maintenance is meeting mission? Not necessarily. The importance is demonstrated when maintenance fails to meet the mission. When timesheets are accurately recorded, maintenance managers and Commanders can see where their personnel are during the 40-hour work week. Additionally, units may request additional manpower from higher echelons to assist with the maintenance workload. Assigned utilization determines whether support is warranted and validates that personnel are effectively utilized. Timesheets are critical for demonstrating maintenance utilization compliance and personnel accountability.

Impact

Currently, there is no standard for accurately entering timesheet data in GCSS-Army that accounts for assigned utilization. Standardizing the process for manpower utilization accountability in GCSS-Army is critical to ensuring maintenance managers can conduct analyses to determine whether their personnel are productive. A complete analysis can enable Commanders to take data-driven action. For example, Commanders can allow personnel to conduct maintenance during physical training hours for a limited time or by removing or reducing taskings on maintenance personnel to increase maintenance availability and operational readiness. Additionally, standardization enables the Department of the Army (HQDA) headquarters to properly track all manpower maintenance utilization in the Army through CASCOM's SEA system.

Conclusions

Fully leveraging GCSS-Army capabilities is an ethical challenge for Army leadership. A culture shift that applies leadership, doctrine, and ethical principles supports the adoption of standardized, data-driven strategies for maintenance manpower utilization. Implementing proper manpower utilization standards will increase and maximize the Army's readiness. Fostering and encouraging an analytical mindset will ensure proper integration of Army systems and honoring our Soldiers' time.

About the Author

CW3 Scott Reed has served as a Health Services Maintenance Technician in the Medical Service Corps since 2017. He previously served as a Biomedical Equipment Technician for 10 years before becoming a Warrant Officer. His experience includes a variety of maintenance management positions in both operational and generating Army. He managed several medical maintenance shops and oversaw the overall equipment management program for each unit.

References

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Photo from DIVIDS: Sgt. Jason Paglia, a biomedical equipment specialist, repairs a patient monitor at Hill Air Force Base, Utah.