Maximizing Effectiveness:

Parts Prioritizing During Crisis

By CW3 Jacob N. Moore and MAJ Garrett C. Chandler

On August 1, 2024, a microburst struck Fort Carson, Colorado, damaging more than a battalion's worth of the 4th Combat Aviation Brigade's (4 CAB) aircraft across three Mission Design Series (MDS). This included a few with extensive damage and impacted aircraft from every flight battalion. The initial weeks were dedicated to meticulous inspections and repair part identification. The subsequent task of ordering and fulfilling replacement parts to repair the fleet fell to the Support Operations Officer-Air (SPO-Air) Section. To address this challenge, the SPO-Air team needed to understand the parts requirement, operate with and communicate priorities, and track components for the dozens of damaged aircraft simultaneously. This seemed a daunting task, as no historical precedent existed for fulfilling such a large-scale requirement.

Identifying the Requirement and Prioritizing Orders

To fully understand the parts requirement, SPO-Air established explicit guidance to unit technical supplies on ordering procedures. Units created a single work order in the Global Combat Support System–Army (GCSS-A)[1] titled "Weather Event Damage" to function as a quick reference for weather-related work orders. All parts required to repair a weather-damaged aircraft were then loaded under this order using a customer fund code (CFC) generated by the brigade S8 (budget officer) and implemented by the division G8 (budget team). Utilizing the CFC allowed the S8 and G8 to isolate the weather-related parts costs from normal maintenance costs. Additionally, by creating one order for each aircraft by tail number, every echelon's budget office could see the total cost per aircraft. This provided leadership with valuable insight by aircraft type and tail number.

Once each technical supply officer loaded the parts into GCSS-A and the associated costs were calculated, the brigade commander could prioritize the entire list by specific aircraft. Additionally, the brigade executive officer (XO) could articulate how many aircraft by type could be repaired for a specific dollar amount. The commander and XO then used the information to communicate funding requirements across the Enterprise in daily updates and weekly operational planning teams with the Forces Command (FORSCOM) G3/5/7 team. As funding became available, the XO, SPO-Air, and S8 could quickly work down the parts list based off the commander's priority. This process averaged only 15–30 minutes to complete, regardless of the funding amount made available to the brigade.

To maximize the available budget, the team balanced several approaches. Once full aircraft orders exceeded the available budget, the team began ordering low-cost hardware for all aircraft to set conditions for when major components arrived. This prevented work stoppage due to missing small parts and hardware when major components arrived. Lastly, the scarce and expensive items such as blades, transmissions, and engines had to be communicated in detail for funding to be allocated by higher echelons. By first prioritizing via the commander's critical aircraft list, maximizing the budget with smaller components, and then balancing low-quantity, high-cost items, the 4 CAB team effectively expressed the parts demand to higher headquarters. As a result, all parts to conduct weather-related repairs were ordered and available in the national inventory within 2 months of the incident. The next challenge was tracking the nearly 2,000 separate lines of parts, ranging from washers and bolts to engines and transmissions.

Communicating and Prioritizing

At the time, 4 CAB primarily ordered parts through GCSS-A. However, other echelons involved used alternative systems that connected with GCSS-A but showed different data. Issues and information gaps became apparent quickly and led to conflicting reports among the different levels of leadership. Higher level organizations utilized other

[1]GCSS-A website available at: https://gcss.army.mil/Default

programs such as the consolidated hub of Enterprise data–Army Enterprise System Integration Program, the Army budget system–General Fund Enterprise Business System, or the Sustainment Enterprise resource planning system–Logistics Modernization Program. This made initial coordination difficult due to differing data based on information system and echelon until materiel managers began to understand each system's limitations.

While GCSS-A provides an easy way to consolidate, order, and track parts, it requires a tedious multi-step process. For example, when using GCSS-A, no single transaction code (T code) exists to display all tracking data on one screen at one time. To obtain the reservation number for each aircraft order, materiel managers needed to obtain the order number for each aircraft using T code IW32. This reservation number was then entered in bulk using T code ZRRR to obtain the supply support activity (SSA) purchase order number. After obtaining the purchase order number, it was entered in bulk using T code ZPROSTAT to obtain the SSA rollover number. The rollover number is how the order is tracked at a national level and associates the order with the unit. Ultimately, the rollover number would be loaded into the Integrated Data Environment/Global Transportation Network Convergence system, producing the estimated ship date, as well as the source of supply. The SPO-Air team combined all these data into one single spreadsheet.

This spreadsheet could be filtered and sorted as necessary by the user, allowing for only pertinent data to be displayed. By combining all data, filtering by tail number, MDS, source of supply, and estimated ship date was simple. This "Master List" was updated daily by SPO-Air, and it was so effective that the XO eventually included the document in the routine report sent to FORSCOM, the Defense Logistics Agency (DLA), Army Materiel Command (AMC), Headquarters, Department of the Army G4, and U.S. Aviation and Missile Command. It enabled the 4 CAB commander to share precise details across the Enterprise and communicate where and when they needed prioritization and/or support. This allowed various commanders to prioritize parts acquisition and shipment rapidly. Critically, the 4th Infantry Division's DLA Customer Support Representative (CSR) and the AMC Installation Support Representative (ISR) used this spreadsheet to identify and describe issues not previously apparent in the traditional, disjointed patchwork of parts ordering and tracking systems. These individuals proved vital in the parts allocation process.

Tracking En Masse

Traditionally, maintenance managers at a battalion or brigade also query the Enterprise when parts are ordered through GCSS-A. If a part is not locally available, the maintenance manager can check inventories across the Army and contact other units directly. Due to the sheer volume of orders, totaling nearly 2,000 separate line items, 4 CAB was quickly overwhelmed, and support from the Enterprise was imperative to mission success. Communication between Enterprise item managers and SPO-Air became a daily battle rhythm event. Items with long lead times, or with distant estimated ship dates, were prioritized first. Some items had estimated ship dates **years** out due to acquisition or production timelines. Many parts were simply flagged in the system due to the sheer quantity of orders placed all at once. Working with order fulfillment specialists, CSRs, and ISRs, SPO-Air was able to expedite these shipments. By clearly communicating the requirements across the Enterprise and working collectively to validate available inventory, the team reduced shipping dates from **months** and **years** to **days** and **weeks**. Furthermore, many parts were unavailable at the Enterprise level, necessitating communication of exact data in bulk. This facilitated the movement of items from across the globe, all thanks to an innovative, consolidated report, built and managed by a three-person team. Ultimately, all items were ordered, coordinated, shipped, and arrived at Fort Carson within 3 months of the weather incident.

Conclusion

The challenge seemed insurmountable. The 4 CAB faced obstacles in funding, gaps in Enterprise system communication, and parts inventory limitations. Consolidating parts requirements enabled rapid funding and ordering, while aligning funding to specific aircraft via a CFC allowed FORSCOM to calculate the exact cost of repairs and prioritize parts redistribution. Establishing a combined parts and estimated shipping date spreadsheet, and the emphasis on total system repair proved vital for communicating and prioritizing the repair process. Overcoming system shortfalls through consistent communication across the Enterprise enabled leadership to prioritize and redistribute inventory to accelerate shipping times, which accelerated repairs and allowed the CAB to return the vast majority of aircraft to training and operations with a few months of the weather incident.

Photo courtesy of Pexels.com

Biographies:

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