

Defense Management Report Decision No. 904 (DMRD 904) mandated that the Air Force establish stock funding for managing depot-level reparable (DLRs).<sup>1</sup> Around the same time, the Air Force Stock Fund was made part of the Defense Business Operations Fund (DBOF). In early FY 1997, the DBOF was replaced by four “working capital funds,” one each for the Air Force, Army, Navy, and a defense-wide fund. Within the Air Force Working Capital Fund, DLRs are managed by the Repairable Support Division (RSD) of the Supply Management Activity Group (SMAG), formerly known as the Supply Management Business Area (SMBA).<sup>2</sup> In this market-like management system, inventory held by SMAG is sold to customers: wings and higher-level organizations in major commands and repair activities in air logistics centers (ALCs). Proceeds from the sales—over \$3 billion per year—are then used to pay for depot-level repair services, replacements, and working capital fund operations. Specifically, SMAG transacts with the Depot Maintenance Activity Group (DMAG), formerly known as the Depot Maintenance Business Area (DMBA), for repair of DLRs and with contractors for repairs of other

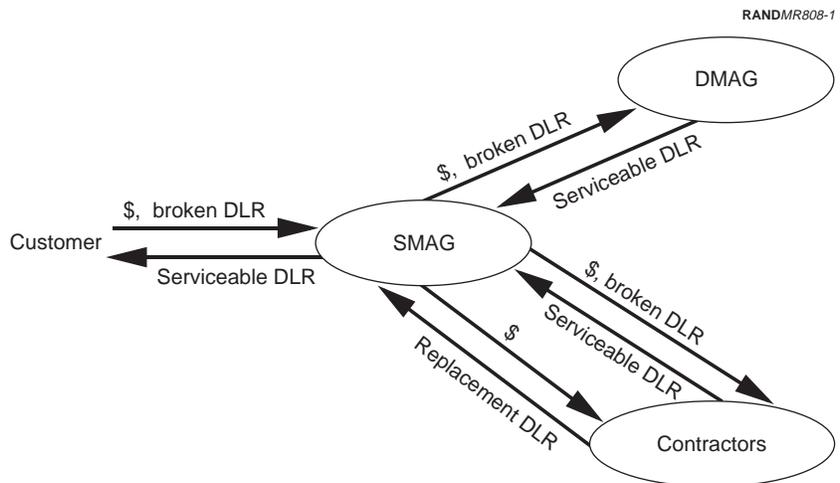
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<sup>1</sup>*Defense Management Report Decision No. 904*, approved November 11, 1989, also mandated that Air Force consumables be stock funded and that the Army adopt stock funding as well. The Navy adopted stock funding for depot-level reparable in the early and middle 1980s.

<sup>2</sup>The fund for base-level reparable and consumables is the System Support Division (SSD). RSD manages over 162,000 items with projected sales of \$2,998.8 million for FY 1997. SSD manages over 51,000 items with projected sales of \$360.5 million for FY 1997. Source: United States Air Force, *Defense Business Operations Fund: FY 1997 President's Budget*, March 1996.

DLRs and replacement items (see Figure 1). Stock funding was fully implemented for most DLRs in FY 1992.

The Department of Defense (DoD) believes that charging customers according to the costs of the goods and services demanded and giving managers the authority to make trade-off decisions should “control costs, promote efficiencies, and allow sound economic decisions.”<sup>3</sup> From the Air Force point of view (which is both the demander and supplier of support services), this means using DLR prices—known as “transfer prices” in the economics and business literatures—to help achieve support system goals at least cost. How successfully these DoD goals are realized depends first on the extent to which prices influence decisions—that is, whether or not managers have the flexibility and the incentive to make trade-offs among alternatives. If prices *do* influence decisions, prices must be structured to induce decisions that contribute to the goals rather than detract from them.



**Figure 1—Air Force Working Capital Fund Transactions**

<sup>3</sup>OSD (Comptroller), *An Overview of the Defense Business Operations Fund*, n.d., p. 4. See also Undersecretary of Defense (Comptroller), DOD 7000.14-R, p. 50-1-1.

Are prices affecting current decisions? We were unable to identify data that would allow us to quantify how and the extent to which decisions are affected by DLR prices. There is general agreement that customers have responded to the establishment of DLR prices in ways that save the Air Force money. For example, customers are reducing costs by repairing more of the items that they are staffed and equipped to repair locally rather than sending them to the depot.<sup>4</sup> Also, customers are returning more of their unserviceable DLRs for credit when purchasing serviceable ones from the working capital fund, reducing required purchases of replacement items.

However, there is considerable anecdotal evidence that some DLR prices do not induce the decisions that the Air Force would like customers to make. Customers are taking actions to avoid transacting with the working capital fund for some items that the Air Force has determined are best repaired at the depot level. For example, in some cases, customers are able to reduce the number of DLRs exchanged by taking actions that cause unserviceable items to be in extremely poor condition (state of repair) when they reach the depot. Although the number of repairs falls, the total repair cost may increase. Also, customers have incentives to resist moving repair from the local level to the depot level even when the Air Force has determined that depot-level repair is in its best interests.

These problems occur because the current price structure induces customers to avoid purchasing DLRs from the working capital fund. DLR prices do not reflect the costs of providing repair and replacement services nor are they tailored to Air Force support plans for individual items. Instead, current prices are typically much higher than the cost of depot repair, creating cases in which local repair (organic or contractor) is cost-effective for customers but not for the Air Force as a whole. Also, prices do not reflect the varying conditions of the unserviceable DLRs; thus, customers do not see the cost associated with altering the state of repair of items.

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<sup>4</sup>Local repair is less expensive than depot repair in the short run if the wing has already been provided the manpower and equipment to perform the repairs. Sending these items to the depot adds the costs associated with transportation and the longer repair pipeline.

The Air Force has limited the extent of these problems by constraining the ability of customers to respond to incentives created by DLR prices. For example, customers must obtain permission to substitute local sources of repair for depot-level repair. Thus, the Air Force implicitly recognizes that the DLR pricing structure provides incentives that are not always consistent with Air Force goals.

This study examines the support decisions that are influenced by DLR prices and the problems generated by the current DLR price structure, and it recommends changes in the approach to setting prices that should alleviate the problems. Underlying our recommendations is the notion that the support system is changing, and there is considerable uncertainty about its final structure. Our recommendations lead to a price system able to accommodate broad changes in support strategies.

## **ORGANIZATION OF THE REPORT**

Chapter Two discusses the support decisions affected by DLR prices and repair costs. Chapter Three describes the current DLR price structure. Chapter Four explains how the price structure prevents the Air Force from achieving its goals of controlling costs, promoting efficiencies, and allowing sound economic decisions, and Chapter Five recommends changes that would alter incentives and improve the Air Force's ability to achieve these goals. Chapter Six provides some final remarks on the recommendations and indicates limitations on the gains from their implementation. Appendix A discusses recommendations from the accounting and economics literatures on internal transfer prices. Appendix B provides the mathematics of the pricing recommendations found in Chapter Five.