Chapter Four

COMPLEMENTARY INITIATIVES THAT COULD FACILITATE EFFECTIVE CHANGE

The Air Force is considering a wide range of policy changes today. A number of these, if implemented, would facilitate any effort to change its PPBS process relevant to DLRs. Any effort to change the PPBS process should be aware of how success is related to these other policy initiatives and promote these complementary efforts as part of any integrated effort to change the PPBS system. This chapter briefly reviews three complementary initiatives:

- multipart pricing of DLRs,
- capability construct that links high-level decisions to use MEIs to all resources associated with their use, and
- balanced scorecards for logistics support of weapon systems.

More centralized funding of DLRs, through multipart pricing, should offset some of the problems created by the Air Force’s decentralized PPBS process. Any effort to change that process should carefully reflect all Air Force initiatives in pursuit of more centralized control of DLRs.

The Spares Campaign’s multipart pricing initiative could potentially centralize at least part of the decisionmaking responsibility for DLR management. Such a change would help all relevant MAJCOMs work together to create a unified program that effectively balances Air Force requirements for DLRs with other programming priorities.

Multipart pricing would change which MAJCOM develops the POM for selected DLRs. Multipart pricing requires operating commands to pay directly only for
spares support costs tied to repair of items they "consume" in the course of their normal operations, . . . the actual depot-level reparable (DLR) repair costs. . . . Congressional funding for all other central spares support requirements will be executed directly for those purposes, in lieu of attempting to collect the funding through DLR surcharges. This removes from prices all factors for spares “buy” requirements, repair requirements associated with readiness, pipeline and safety levels, and all materiel management costs. It directly and centrally funds these worldwide spares needs. (Koenig, 2001, p. 2.)

This change would in effect centralize, under AFMC control, PPBS responsibility for about half of the annual cost of the DLR inventory. This is the portion of the inventory that presents the greatest challenges for a decentralized PPBS process. Readiness spares packages and pipeline and safety levels all involve scale economies that extend across all users of any particular spare, thereby placing a premium on effective coordination of these users. Multipart pricing gives AFMC direct responsibility to achieve this coordination. The individual using commands retain responsibility to plan for the DLR-related expenses most directly linked to their missions—repair costs driven directly by operating command activity levels. Scale economies are in play here as well but do not play as large a role as they do for the spares assigned to AFMC.

How the AFRAP defines the capability construct that frames the Air Force resource planning process will affect fundamentally how effectively initiatives that improve sustainability of existing MEIs compete for resources with other initiatives in the PPBS.

A critical part of the HAF 2002 (HAF 02) initiative sought to assess and improve the Air Force’s resource management processes. The initiative, begun in 1999, recommended, among other things, that the Air Force replace all existing resource planning and programming processes in all its organizations with a single, uniform AFRAP. AFRAP comprises four interactive steps (Wehrle, 2000):

1The current pricing system builds prices up from factors that seek to recover costs associated with various cost pools. Multipart pricing effectively removes from prices the factors associated with cost pools that will be funded by direct congressional appropriations allocated to AFMC.

2An author of this report, Leslie Lewis, is participating actively in the AFRAP effort.
• Determine capability objectives.
• Develop capability options.
• Allocate resources.
• Assess performance.

Although the Air Force leadership has accepted the AFRAP concept, it has not fully implemented the concept for a variety of reasons. The most important barrier is the lack of a common capabilities construct that would provide the foundation of the concept. The Air Force Planning and Programming Directorate (AF/XP) has initiated work to develop and implement a “common capabilities construct” to tie together the Air Force vision with relevant tasks and the resources and operational concepts needed to execute these tasks.

The initial work on defining a capabilities construct has concentrated on identifying the construct’s attributes. Those involved have reached agreement that the construct must be output/effect oriented; allow the HAF to compare potential outputs with one another and establish a standard value; and, of particular importance to the sustainability issue and its associated issue of DLR spares, capture the totality of Air Force resources—it must be collectively exhaustive. Importantly, the construct must ensure that dollars are linked to capabilities. The construct should link all resources relevant to warfighting, such as DLR spares, to operational capabilities; institutional capabilities should include only elements that cannot be directly linked to the operational capabilities.

Such agreed-on attributes, if ultimately incorporated into a construct, will directly tie DLR spares and their associated costs to operational capabilities. Current work defines an operational capability as containing such elements as people, infrastructure, sustainment, and equipment. Tying DLR spares directly to operational capabilities will ensure that they are assessed as integral to achieving the desired outputs associated with these capabilities.

A four-level capability construct has been developed and is being vetted throughout the Air Force. The first level is the Air Force vision. The second level comprises high-level operational and institutional capability areas. High-level capability areas give the senior Air Force
leadership the ability to assess major issues and their resource implications at a strategic level

The third level contains lower-level categories of operational and institutional capabilities. These categories of capabilities combine the people, training, infrastructure, and concepts of operation designed to perform a set of tasks to achieve a desired output or effect. Operational capabilities imply combat and combat support activities indirectly. Therefore, DLR spares, as they relate to achieving a desired effect or output, would be linked to a particular operational capability.

The fourth level identifies relevant tasks. Current thinking sees tasks as activities conducted at the MAJCOM level. Operational and institutional capabilities have tasks associated with them. Tasks are tactical-level actions performed to achieve the desired objectives associated with specific actions. Again, all the resource elements associated with performing a task must be identified. Much of the dialogue that occurs between the MAJCOMs and HAF during the PPBS process currently occurs at levels three and four. The HAF operates at a more strategic level of capability areas and capabilities, while the task level is where the MAJCOMs generally deliberate resource issues.

As of this writing, the Air Force is vetting a draft capabilities construct developed by RAND (Lewis, Kauver, and Brown, 2001). It will provide a formal, routine basis for assessing DLR spares requirements within the context of operational requirements and readiness. Sustainment is only one of many issues the construct will address. It complements the proposed changes discussed in Chapter Three primarily by improving the Air Force leadership’s understanding of how sustainment affects key capabilities.

The changes proposed here should be carefully integrated with the AFRAP approach under consideration. Because the AFRAP approach builds links between capabilities and resources through formal MAJCOM channels, it implicitly builds in the same view of “separability” implicit in the decentralized Air Force PPBS process. Decisions made in parallel channels are “separable” to the degree that resource decisions in one channel can be made without regard to resource decisions made in another channel. In this case, for example, sepa-
rability assumes that resource decisions in the USAFE channel can be made without regard to resource decisions made in PACAF.\(^3\)

As noted above, DLR spares funded by any MAJCOM using a particular MEI, like an F-16C, can support any other MAJCOM using the same MEI. Once depot-level or centralized intermediate repair facility (CIRF) maintenance assets exist to support one MAJCOM, these assets can also support every other MAJCOM with comparable MEIs. So the resource decisions that one MAJCOM makes are relevant to the resource decisions that others make. These dependencies are precisely those that lead us to seek integrating alternatives to the current decentralized PPBS structure.

In effect, this means that, when each MAJCOM has executed its version of the standard capability construct template, the implications for sustainment requirements cannot simply be summed across MAJCOMs. The Air Force will still require the integrative capabilities discussed in Chapter Three to identify interdependencies in requirements for supply and maintenance assets and to translate these into an Air Force–wide requirement. That is, the AFRAP under development is not an alternative to the integrative policy changes proposed here. Rather, properly implemented and integrated with other ongoing changes, the AFRAP offers an enhanced capability to address one piece of the puzzle—a better understanding of how logistics resources affect specific capabilities relevant to the Air Force leadership.

A balanced scorecard provides another way to link readiness-related outcomes to logistics resources. Ongoing Air Force efforts could yield a scorecard that substitutes for or complements available analytic models and databases.

One of the principal elements of Air Force Logistics Transformation, managed by AF/ILM-T, is the development of a pilot version of a balanced scorecard for the F-16 supply chain.\(^4\) A balanced scorecard is a widely proven commercial tool, for (among other things) relating organizational outcomes to changes in organizational resources, that

---

\(^3\)For a more complete discussion of this concept and its implications for PPBS processes, see Lewis, Coggin, and Roll (1994).

\(^4\)For a recent update, see Krat (2001).
does not require the kind of detailed analytic models discussed above.\footnote{The standard reference on the scorecard is Robert S. Kaplan and David P. Norton, \textit{The Balanced Scorecard} (1996). The Balanced Scorecard Collaborative maintains a useful forum in which to get details about how the balanced scorecard works in various real settings. For more information, go to www.bscol.com.} This F-16 pilot program may provide a demonstration of a capability to link readiness-related outcomes to logistics resources that gains enough credibility among relevant Air Force leaders and decisionmakers to support the changes, suggested here, in how the Air Force PPBS process treats logistics issues.

To understand this, consider first what a balanced scorecard does, and then consider its relationship to the kinds of analytic models the Air Force currently has available to link logistics resource decisions to outcomes.

A balanced scorecard does four important things:

- First, it provides a framework in which the leaders of an organization can reach a consensus on joint goals. Senior leaders responsible for decisions on the resources covered by the scorecard agree on common language to state what they are all doing together. Such formal agreement is quite unusual in most organizations.

- Second, it provides a framework in which the leaders can reach consensus on a simple, high-level operating concept for the organization. The concept links the high-level goals of the organization to customer priorities, the performance of processes that service customers, and investment in assets key to sustaining the organization’s capabilities over the longer term. So the concept embodies the organization’s strategy for making decisions today that are relevant to long-term goals and short-term constraints.

- Third, the operating concept provides a basis for selecting a small number of metrics—about 25 or so at any particular level in an organization—that the leadership at that level can use to monitor the organization’s execution of the strategy embodied in the operating concept. The leadership monitors these metrics to test whether the organization actually operates as they believe it
does and, given how it actually operates, to identify opportunities to increase performance against high-level goals.

• Fourth, taken together, these elements allow the leadership to view its goals and operational concept in realistic—empirically well founded—terms. Having a consensus on how the organization actually works helps the leadership allocate authority and responsibility effectively and maintain accountability for actions that advance its joint goals. This consensus in effect links strategic goals to resources “well enough” to allow coherent decisionmaking on resource allocation.

By its very nature, such a process cannot be primarily quantitative; no organization has a quantitative model of all the elements relevant to its high-level goals and operational concept. So this approach to linking outcomes to resources is quite different from that reflected in traditional analytic logistics models. That said, a balanced scorecard can be built on top of detailed analytic models and, in particular, can reflect at a high level the basic structures of models that underlie it and can support a drilling down into analytic models to allow the leadership ready access to more detailed answers to their questions than the scorecard can provide by itself.

Viewed properly, then, a balanced scorecard is a complement to a set of analytic models, not a substitute for them. In fact, commercial experience indicates that a scorecard can operate effectively without detailed underlying models. It is especially useful in helping leaders rise above the day-to-day concerns of operating an organization and to think strategically about how the organization as a whole works. But the high-level consensus so critical to the success of a scorecard is likely to be easier to establish and sustain if the scorecard is compatible with reliable analytic models that give the leaders confidence in the scorecard’s fidelity in the areas where these models operate.

In principle, an effective balanced scorecard should be especially useful in the context of the PPBS process. It should help sustain consensus about the process itself and the decisions it reaches. It should help the leadership frame its decisions more strategically. To the extent that a scorecard does these things for logistics decisionmaking, it should facilitate the kinds of changes in the PPBS process that are suggested here.
As with the quality of analytic models, those implementing the changes suggested here should keep three things in mind:

- Efforts to implement the changes proposed here should give careful attention to the capabilities of any balanced scorecards available to support them.
- Efforts to make the changes suggested here will probably be more successful if the Air Force makes effective use of balanced scorecards.
- Any effort to make the changes proposed here should include an active effort to improve the use of balanced scorecards.

**SUMMARY**

Many changes are under review today in Air Force logistics. Several of these could directly enhance the success of the changes proposed in Chapter Three. Changes that tend to centralize the funding for Air Force DLR procurement and repair could significantly reduce the negative effects of the decentralized Air Force approach to PPBS. Multipart pricing would centralize about half of the funding for Air Force DLRs in AFMC. The AFRAP seeks a transparent, rational connection between strategic defense goals, specific military capabilities, and resources, including the resources to support capabilities. Properly implemented, this change could highlight how logistics resources contribute to military readiness. That said, AFRAP could also make it more difficult to characterize key scale economies relevant to decisions about logistics resources. The balanced scorecard provides another way to link logistics resources to military readiness. If properly implemented, it could complement AFRAP and the broader suite of analytic methods that the Air Force uses to support its PPBS process.

The more effectively changes like these are coordinated with the changes proposed in Chapter Three, the more value all of these changes, taken together, can bring the Air Force. Unfortunately, not all aspects of Air Force policy favor the package of changes proposed in Chapter Three. Chapter Five examines key elements of the Air Force culture that could defeat such a package.