The Afghanistan Air Force (AAF) is a fledgling organization that provides critical capability to the Afghan government in fighting the ongoing insurgency. Deliberate efforts to rebuild the AAF began in the recent past, and the AAF has just received an influx of technology and associated capability from the United States, including multiple “new” aircraft platforms such as the C-130, MD-530, and A-29.

The AAF has no previous sustainment experience on these airframes, and currently little human capital with the qualifications to sustain these aircraft. Therefore, AAF maintenance and logistics capabilities on these platforms are nascent and currently require a high level of contractor logistics support (CLS).

CLS provides the AAF with the necessary maintenance and logistics support to safely operate assigned aircraft, as well as training and mentorship for AAF personnel. In essence, CLS contractors are simultaneously responsible

Douglas is an assistant professor at the Air Force Institute of Technology recently deployed as an adviser to the Afghanistan Air Force (AAF) in Kabul. Kossick is the deputy commander, 515th Air Mobility Operations Group at Yokota Air Base, Japan, and is currently deployed as an adviser to the AAF in Kabul.
for sustaining the AAF fleet and building AAF capacity so that one day the aircraft sustainment enterprise can be transitioned to the AAF. Efforts are ongoing to transition the sustainment workload to the AAF, particularly on legacy platforms (i.e., Mi-17, C-208). However, difficulties with transitioning capabilities to the AAF, combined with evolving capabilities and changing aircraft mission roles, require CLS to remain high for the foreseeable future. The current level of effort may be sustainable in the short term but it is not likely to be operationally, fiscally, or politically feasible in the long term. Therefore, to ensure future sustainment of the AAF fleet, the Coalition must balance its effort and resources on developing (“making”) and providing (“buying”) AAF aviation sustainment capability.

How does the Coalition determine the appropriate balance between “make” and “buy” to achieve an end state that is economical, results in no degradation of the AAF’s operational performance, and in which the AAF is primarily responsible for fleet sustainment? A perfect cost-benefit solution cannot be developed in the current environment. However, we posit that if the Coalition takes a more deliberate, strategic approach to structure and monitor the CLS effort and AAF capabilities, long-term sustainment of the AAF fleet will be more efficient and effective.

Complex, Uncertain Work Environment
The CLS concept provides a high level of aircraft availability, capability and flexibility, but at a high price. The programmed budget for AAF CLS is more than $700 million annually. This budget supports at least one major contract per airframe. Because of constantly changing operational requirements, continued fleet growth, and an evolving AAF mission set, some airframes require upward of three different CLS contracts to fully support operations and training. These issues
At this stage, and for the foreseeable future, we recommend the U.S. and its Coalition partners “make” and “buy” AAF sustainment.

result in a fragmented approach to aviation maintenance and logistics sustainment, training, and, ultimately, transition of capabilities to the AAF.

The current aviation sustainment approach is a byproduct of an incredibly dynamic and complex context. The current effort is akin to building an aircraft in flight, while it is getting shot at. Challenges abound in Afghanistan, and compounding issues have made it difficult to train and transition aviation maintenance and logistics capability to the AAF. Recent budget reductions have put additional pressure on the enterprise, providing more impetus for Coalition forces and CLS contractors to train and transition capabilities faster. However, cultural, contractual and mission-related challenges often hinder progress.

For example, from a cultural perspective, educational requirements for technical career fields can create challenges. Dari is not a technical language, and technical orders and manuals for current weapon systems are written in English, requiring Afghan technicians to attend English language training. This training limits the time personnel spend learning the technical aspects of their jobs. Moreover, educational requirements limit the available talent pool. An officer class of 100 students is usually drawn from a pool of 2,000 or more candidates. Many of those 100 officer candidates will end up serving as pilots. This lack of human capital for important technical fields creates gaps in capability, and lengthens the transition in these areas.

From a contractual perspective, transition can be difficult to define, measure, and achieve, particularly as sustainment is provided via multiple contracts with multiple contractors (and subcontractors) under the oversight of multiple out-of-country program management offices. No single coordinating mechanism exists across contracts, and fragmented contracts produce sub-optimal solutions. For example, boundary spanning aviation maintenance functions such as back-shop maintenance and production control are embedded in each contract and are operated as separate efforts across airframes, increasing CLS overhead and duplicating capabilities. Moreover, contract dates and periods of performance are not aligned across airframes (or oftentimes within airframes). See Figure 1 for the current state of CLS contracts.

Beyond the overall contractual structure, one can argue that CLS contractors are not incentivized to work themselves out of a job. Few incentives are built into contracts to ensure CLS contractors take on the requisite training and mentorship role aimed at transitioning capability to the AAF and reducing the CLS footprint. Conflicting objectives and priorities regarding current operations and training create tension between the AAF, CLS contractors, and Coalition advisers, sometimes resulting in tenuous relationships that can potentially impact contract execution, mission accomplishment, and transition.

A final challenge results from the lack of a clearly established mission end state. The Coalition does not know how much longer it will stay in Afghanistan, and to what end. Further amplifying the “end state” issues, the Coalition continually provides a sustainment backstop when things start to go awry, and our AAF counterparts are conditioned to know that we are not going to let their mission fail. This approach reduces AAF accountability and creates more difficulty in transitioning capabilities. Considering the current complex environment,

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Figure 1. CLS Contracts (Current State)

A-29

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CLS/Training

C-130

Training

C-208

CLS/Training

MD-530

CLS/Training

Weapons Maintenance

Mi-17

↓

CLS/Training

Weapons Training

Figures generated by the authors.
issues need to be addressed and contracts developed using a realistic, performance-based approach.

**AAF Sustainment = CLS Forever?**

Performance-based logistics (PBL) may provide a solid framework to create an aviation sustainment approach that synergizes AAF and CLS capability to produce a more cost-effective, efficient sustainment enterprise. In short, PBL is designed to optimize system availability while minimizing cost and logistics footprint. This collaborative approach requires long-term relationships between organizations, a shared vision, and collectively developed objectives.

Given the background, and the desire to reduce redundancy and overhead with an appropriately scoped CLS effort, we offer two main recommendations that are grounded in the PBL framework and drive the pursuit of a proper balance of CLS and AAF capabilities. At this stage, and for the foreseeable future, we recommend that the United States and its Coalition partners “make” and “buy” AAF sustainment. However, in doing so, we recommend restructuring the contract mechanisms and implementing a deliberate transition approach.

**Contract structure: a consolidated approach.** Our first recommendation is to consolidate all CLS contracts into a single firm-fixed price contract that represents a functional organizational structure (Figure 2). A consolidated contract will reduce CLS overhead, reduce inefficient use of capability across platforms, and potentially synergize training efforts across platforms. A CLS (or product support) integrator would provide top-level program management for the CLS effort. This integrator would also be the primary liaison with AAF leadership and Coalition advisers. Note that the intermediate, maintenance support, and logistics subcontractors would simultaneously provide support across all AAF airframes.

To achieve a balance of AAF and CLS capabilities, one must recall that CLS contractors currently work with competing interests. On one hand, they are required to maintain a certain level of operational performance (e.g., mission capable rate). On the other hand, they are required to meet training requirements. Training requirements can reduce operational performance. However, initiatives can be put in place to ensure CLS contractors are not penalized for training AAF personnel. For example, nonreportable time is used to track aircraft status when the AAF is primarily performing maintenance tasks or training.

Another initiative speaks to longer term transition goals. Future contracts should include incentive fees that motivate CLS contractors to transition capabilities and reduce contract scope. Overall, restructured contracts with the appropriate mechanisms and incentives to encourage capabilities transition could optimize fleet availability while reducing the CLS sustainment footprint and cost. However, this goal cannot be accomplished without a complementary transition approach.

**Transition approach: disciplined assessment paramount.** Our second recommendation is to develop a broad-based, flexible transition approach to train AAF maintenance and logistics personnel and thusly transfer capabilities to the AAF. This approach must be reflected in contract performance work statements as a required task and utilized across airframes and functions to ensure standardization of effort. Given the current lack of a defined end state, and the different levels of AAF capabilities across airframes and functions, this approach is not based on any specific timeline (e.g., a 5-year plan). Strategic time-based transition objectives are difficult to set within limited contractual periods of performance. Therefore, the recommended transition approach is based on a battle rhythm of capabilities assessment across the airframes and supporting functions in order to make CLS scope decisions at predetermined intervals.

As can be seen in Figure 3, the notional transition approach is designed to transition various capabilities over time. We recommend transfer of lower-level organizational-level maintenance activities first, such as forward operations and flight-line maintenance. CLS can then focus efforts on transitioning more involved capabilities such as scheduled inspections, back-shop maintenance, and so forth. Some higher-level capabilities such as production control, quality control and logistics management are not recommended to be transitioned in the near term, or perhaps ever.
The CLS integrator is tasked with transition oversight, and should take a holistic view of AAF capabilities. Capability transition will vary by airframe. Therefore, transition decisions for the different airframes and functions must be tracked and managed separately. “Tactical” transition timelines (within periods of performance) can be tracked as objectives, though these timelines will likely require adaptation over time, based on AAF progress.

Any transition approach will be ineffective without proper personnel management. Therefore, we recommend the AAF, advisers and contractors develop and maintain a consistent baseline understanding of AAF personnel authorizations, assignments and qualifications. Personnel trained in a specific career field should be assigned to positions that match their qualifications. Training programs must be built and monitored to ensure appropriate levels of human capital are consistently available to fill personnel billets. Finally, detailed personnel, training and qualification information (standardized across all sustainment functions) must be tracked and reported on a monthly basis.

Monthly assessments can be aggregated into quarterly capabilities assessments as depicted in Figure 3, allowing decision makers to adjust training programs to meet transition objectives. A disciplined battle rhythm of AAF capabilities assessments puts a lot of impetus on the AAF, contractors, air advisers and program offices to maintain high situational awareness associated with personnel management and training programs. However, we posit this process is a solid way to achieve a collective understanding of the AAF’s current capabilities and ensure timely decisions to achieve the appropriate balance between CLS and AAF efforts.

Finally, identifying relevant transition metrics has been difficult. Across airframes, capabilities and contract option years, transition goals will vary and often cannot feasibly be monitored or met. For this reason, we recommend that periodic assessment of personnel qualifications and organizational capabilities be made a contractual requirement. Assessments, combined with collectively established goals regarding capabilities development and transition, can implicitly ensure transition is actually taking place.

**AAF Sustainment = CLS Forever, With Caveats!**

The AAF is a growing organization, both in size and capability. Much more work remains to build the AAF into a professional, capable and sustainable organization. We believe that, over time, and with a deliberate approach, we can overcome some of the challenges associated with this complex environment and make progress to this end. The recommended approach (grounded in PBL) relies on long-term, solid partnerships between the AAF, Coalition, program management offices, and CLS contractors. These partnerships, combined with restructured contracts, should result in collectively developed and aligned objectives concerning the balance between AAF and CLS capabilities. Furthermore, the total cost of AAF sustainment may decrease by incentivizing CLS contractors to transition capability to the AAF in a timely manner.

**Advantages of approach:** This approach, while unconventional, was conceived based on experience in the current environment and has advantages over generic time-based plans. We don’t know what the future holds for Coalition involvement in Afghanistan. We suggest that this approach helps address this uncertainty by facilitating a smoother transition if Coalition forces are reduced to minimal levels with little notice. That is, a consolidated contract organized to reflect the AAF structure should be easier to transition, and coordination with a single CLS program manager will require less bandwidth for contract oversight.

The proposed transition approach also allows for flexible adjustment of CLS capability. For example, the AAF currently does not have enough human capital to fill some required maintenance training slots. Continuous assessment ensures enough CLS is on hand to fill capability gaps while the AAF
finds capable personnel to fill vacant positions. Assessment further allows organizations to make frequent human capital decisions before issues become crises.

Limitations of Approach: As with every approach, this one has some potential limitations. Is a single contract too big, creating an unmanageable span of control or single point of failure? The AAF is approximately the size of a large U.S. Air Force operational organization. One could argue that a single contract will actually decrease the required span of control by reducing redundancies. Will a single large contract also drive an increase in net cost, resulting in higher (i.e., congressional) oversight, reporting, and monitoring? This concern could be alleviated with multiple functional contracts, perhaps a single contract per function (Figure 2).

One final question: “Which program office would oversee and manage such a contract?” Admittedly, the answer is unknown, but we do know the program management function would require the capacity and capability to support a broad and diverse mission set. Additionally, the program management function would require an in-country presence with the ability to drive decisions and take action with onsite contracting officer representatives. Despite these limitations, we propose the recommended approach provides a solid vision for transition and enough flexibility to be adjusted when the situation on the ground changes.

A Win-Win-Win …

The current situation in Afghanistan presents multiple challenges to developing the AAF into a professional, capable, and sustainable organization. We have argued that, for the foreseeable future, the Coalition should “make” and “buy” sustainment by balancing CLS and AAF capabilities. Make or buy decisions are usually primarily based on cost. However, in this situation, we must consider other factors. The recommended approach structures CLS contracts and transitions capabilities to the AAF flexibly enough to meet uncertain requirements in an uncertain environment.

Overall, the approach provides the AAF with the sustainment support and organic capability it needs, perhaps in a more efficient manner. At the same time, the CLS contractors are able to make some profit and are incentivized to continue to develop AAF sustainment capability. In this light, the approach could turn out to be a Win-Win-Win, for the AAF, Coalition and contractors, just as it was designed.

The authors can be contacted at matthew.douglas@afit.edu or mjiaodouglas@me.com and at william.kossick@us.af.mil. The views expressed in this article are those of the authors and do not necessarily reflect any official policy or position.

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