

# Knowledge Sharing System and Communities of Practice

## Supporting DAU's Performance Learning Model

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In March 2002, the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics (OUSD [AT&L]) authorized the Defense Acquisition University (DAU), Fort Belvoir, Va., to facilitate the transformation of the legacy Defense Acquisition Deskbook, hosted at Wright-Patterson Air Force Base, Dayton, Ohio, to a new AT&L Knowledge Sharing System (AKSS) that provides a more robust and capable support system for the DoD AT&L workforce (Figure 1).

### About the AKSS

AKSS was launched in October 2002. Like its predecessor, the Deskbook, it continues to provide acquisition information for all government and industry workforce members, covering all functional disciplines (Figure 2, p. 17). AKSS serves as the central point of access for all AT&L resources and information as well as communications regarding new acquisition initiatives. As the primary reference tool for the Defense AT&L workforce, it provides a means to link together information and reference assets from various disciplines into an integrated, but decentralized, information source.

### AKSS Vision

The vision for AKSS is not only to provide a reference source for policy documents, but also to foster and facilitate the growth and sustainment of AT&L-related knowledge communities, commonly referred to as communities of practice (CoPs). CoPs are an integral part of the AKSS vision and serve to promote sharing of discretionary assets

**The sharing environment created by AKSS [<http://deskbook.dau.mil>] and communities [<http://acc.dau.mil>] will provide the workforce with the capability to continuously evolve ... and to foster an environment of continuous learning and innovation.**

(lessons learned, best practices, templates, etc.) on a continuing basis. CoPs do this by bringing together individuals who have a common interest in a particular topic and who find value in connecting to peers and increasing their knowledge and understanding of the subject matter so as to better perform their jobs.

Commenting on the AKSS, John Hickok, DAU director of knowledge

management, said, "The purpose of AKSS is to provide the members of the AT&L workforce, both government and industry, a 24/7 place on the Web where they can get the knowledge and expertise needed to support their work activity in developing, producing, acquiring, and supporting our weapons and support systems." Hickok emphasized that the vision is for the AKSS to be a gateway to the DoD "enterprise" knowledge residing in the OUSD, the Services, agencies, and industry, so that it is shared to the maximum extent possible. This includes sharing human tacit "working" knowledge and providing the tools to collaborate on critical issues affecting the workforce on a real-time basis. "AKSS," he continued, "should make it easy for the user to get to mandatory policy/process in documents like the FAR/DFARS, 5000, and JCIDS [Joint Capabilities Integration and Development System] and even easier to get to discretionary best practices, lessons learned, performance support tools, and subject matter experts."

According to Hickok, AKSS can be described as a transformed Defense Acquisition Deskbook. The Deskbook was initiated in 1995 as a centralized database of the best information available at that time to support the workforce. "AKSS builds on the Deskbook but enhances it with a new 'golden source' concept that ensures that knowledge offered up through AKSS is owned and managed by local organizations that are dedicated to keeping the content accurate and current. The golden source concept is embraced by knowledge management professionals from the OSD [Office of the Secretary of Defense], the Services, Defense Agencies, and industry that

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make up a knowledge providers' network community, facilitated by DAU," said Hickok. He also noted that AKSS adds the whole new dimension of on-line knowledge communities.

Highlighting the importance of AKSS, Dave Brown, DAU lead for the Systems Engineering Community of Practice, said, "AKSS provides the expansion in capability required to assist the acquisition workforce to do a better job in less time. Deskbook has always been an excellent source of explicit knowledge for the acquisition workforce. However, most tasks require both explicit knowledge (things that can be recorded in documents) and implicit knowledge (how to do a particular task). Communities of practice complement Deskbook by adding implicit knowledge to AKSS in the form of the yellow pages of contacts, job aids, templates, and examples."

### How can AKSS help you do your job?

AKSS is designed to ensure that the information it provides is the most up to date available. The new philosophy of directing users to the official source for references and documents assures them that they are accessing the most currently published version of policy documents and references.

AKSS provides a single entry point to AT&L resources. Its goal is to:

- Save time by providing direct access to policy, guidance, templates, training, and peer discussions for those in the acquisition workforce to use in their daily work.
- Increase productivity by guiding workers to the best practices and lessons learned within the DoD AT&L community and industry.
- Improve worker effectiveness by finding and using proven practices and

by sharing lessons learned across the AT&L workforce.

- Accelerate problem solving by improving access to relevant, current, authoritative, and validated information sources.
- Leverage the expertise and experience of others in the AT&L workforce and its industry partners.
- Facilitate peer communication in AT&L career field areas to share experiences and resources.
- Provide access to training and learning resources to help workers grow within career fields.
- Provide access to performance support tools to aid workers with productivity.

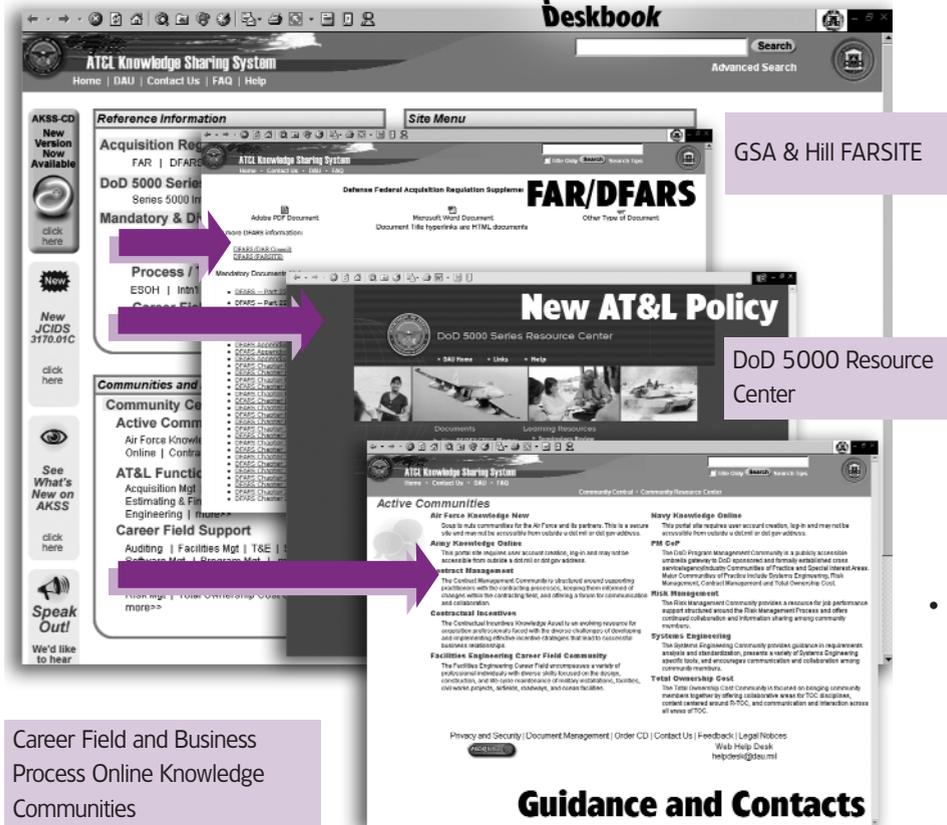
### What's new with AKSS?

On July 1, 2003, AKSS launched a major upgrade, providing the following new or improved functions:

- Expanded education, training, and career development information—links to DoD professional development; leadership training; DoD schools and school catalogs; AT&L career field certification; Defense Acquisition Workforce Improvement Act (DAWIA); AT&L professional continuous learning and continuous learning resources; professional development courses; degree programs, developmental/exchange assignments; professional organizations; and resources for career advancement.
- Expanded software tools list—a list of acquisition-related software tool providers and details about the software applications. Links are provided to acquisition software tools or to the owners of software tools so that users can download or order applications.
- Guidebooks and handbooks—links to over 120 different guidebooks and handbooks providing discretionary guidance, templates, and examples for top level functional areas like acquisition logistics, to detailed topics like performance based payments.
- Search engine expansion options and reference libraries—ability to selectively search certain libraries (DoD

Gateway to Policy, Processes, Tools, and Experts

Expands upon and replaces DoD Deskbook



Career Field and Business Process Online Knowledge Communities

FIGURE 1. DoD AT&L Knowledge Sharing System—AKSS

## Essential Models Project

The AT&L Program Management Community of Practice (PM CoP) has established the “Essential Program Management Models and Enduring Principles Project: What Every Weapons Acquisition Program Manager Should Understand.” The Essential Models Project (for short) is an effort to identify a relatively short list of what program managers (PMs) should read and understand to be successful. We are looking for papers that run the gamut of the weapons system acquisition disciplines. From leadership principles of empowerment of integrated product teams, to fly before you buy, to streamlined decision process, we are interested in those principles that have endured the test of time and are applicable across most programs. Models run from general business, such as the balanced score card and levers of control, to earned value, integrated product and process development and capability maturity models. Again, we are looking for those models that have endured the test of time and are applicable across most programs. What do you consider the essential and enduring?

There are many ways to categorize what one might see as essential models or enduring principles. A program office functional view listing by engineering, logistics, and financial management could be an approach. A view across product, processes, people, and politics is another. We are also looking for various overall frameworks in which to categorize the essential models and enduring principles. What is your program management framework?

The project through the PMCoP encourages your participation. At the Acquisition Community Connection Web page for the Essential Models Project (<<http://acc.dau.mil/emp>>) you can submit your opinion (by taking the survey) and/or start a discussion thread on the site.

You can also participate in the 2004 DAU Alumni Association (<<http://www.dauaa.org>>) conference special track during the 21<sup>st</sup> Annual Acquisition Symposium to be held at DAU, Ft Belvoir, Jun 15–16, 2004. The special track will consist of panel discussions based on submitted academic papers (follow *Acquisition Review Quarterly* Guidelines for Contributors available at <<http://www.dau.mil/pubs/arq/arqart.asp>>). The accepted papers should have a high level of readability, be relevant to the Essential Models Project, and be reliable in conclusions such that conclusions can be reasonably inferred from the arguments. Papers need to include a description of a principle and/or model, examples of its successful application, and the concluding takeaway from real experience. Papers that address a category of models and principles utilized in an integrated manner will have the best chance for incorporation into the conference schedule.

All conference papers will be published on the ACC Web site, where details on requirements for papers are posted.

To inquire about the Essential Models Project, contact the DAU project leaders: John Driessnack at [john.driessnack@dau.mil](mailto:john.driessnack@dau.mil), or Mary-jo Hall at [mary-jo.hall@dau.mil](mailto:mary-jo.hall@dau.mil).

5000 Library, FAR/DFARS Library, Ask A Professor Library, the Reference Library, or the Glossary and Acronym Library) and the ability to search within the results.

- Mandatory and discretionary references—links to policies by topics/processes, by organization, or by career fields.
- Ask a Professor—DoD resource for asking questions concerning policies and practices that will be answered by a team of professors and senior acquisition professionals.
- DoD forms list—link to DoD-sponsored forms that are available online.
- Improved AT&L Web site list—access through both alphabetical and career topic listings.
- AKSS CD—link to online CD ordering capability.
- Popular information—interlinked set of 5000 documents, information on the new Joint Capabilities and Integrated Development System (JCIDS), and other documents.
- Communities and knowledge areas—links to Community Central and Community Resource Center areas. Community Central is the hub for all AT&L-related communities of practice and knowledge areas. It provides the AT&L workforce with access to timely and accurate information and proven practices, and it allows individuals to connect and collaborate with peers on topics and processes that matter to them. The Community Resource Center contains information about AKSS communities, including AT&L community vision, community FAQs, and educational resources to learn more about the organizational benefits of communities and how they work.

### AKSS Future

AKSS is continuously responding to feedback from users to enhance the content and functions, such as search. “Major strides have been made in developing the search capability in the last year and ensuring that the reference library is complete and accurate,” said Bill Hechmer, DAU's project manager for AKSS. “The present focus is on developing a set of interactive 5000 doc-

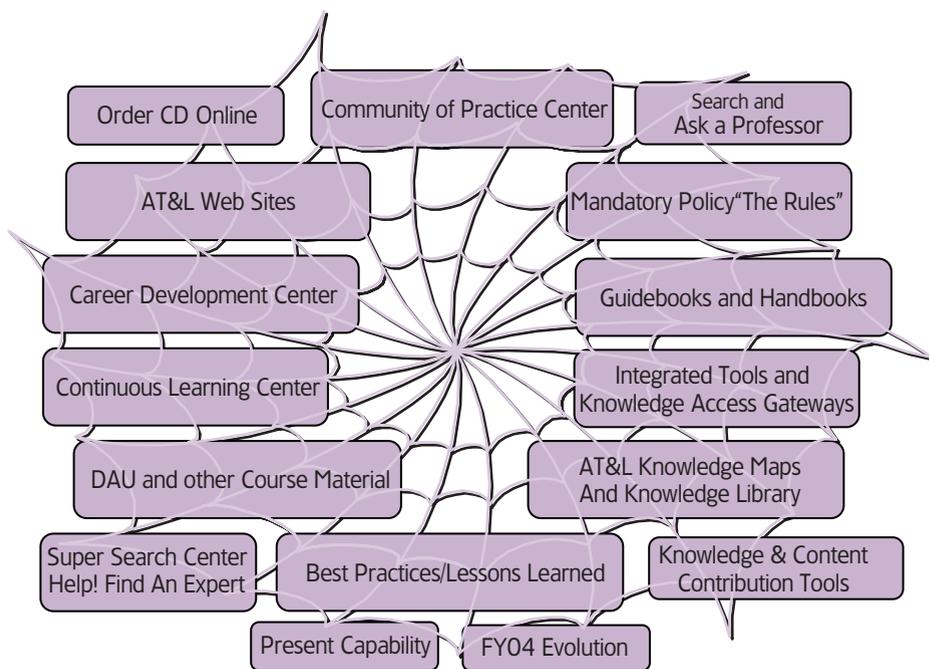


FIGURE 2. AKSS Functions

uments that help users move seamlessly from policy to process to references and product formats. This same concept will be used to develop an interactive set of JCIDS documents that have replaced the old Requirements Generation Process.” Hechmer also emphasized that the biggest future enhancement to the AKSS in late fiscal 2004 will be access to DAU’s new digital object repository (Figure 3). The new repository will house all of the learning and performance support content developed by DAU for its certification courses, continuous learning courses, guidebooks/handbooks, rapid deployment training materials, and other performance support tools. Through this Web-based repository, DAU will publicly share its corporate knowledge with the workforce.

### What’s new with Communities of Practice?

In July 2003, the name of the Program Management Community of Practice (PM CoP) Web site changed to the Acquisition Community Connection (ACC) to better describe the site as an umbrella for all AT&L-related knowledge communities that are focused on sharing across DoD, including DoD’s industry partners. The Program Management Community of Practice is still an active career field community; the

name change to ACC is meant to reinforce the vision of the site as a place where the entire AT&L workforce and its industry partners interact and share resources and experiences to support job performance, to avoid duplication of effort, and to advance the physical and virtual connection of people and ideas.

Commenting on communities of practice, Jill Garcia, DAU’s expert in CoP development, and knowledge project officer for logistics, said, “DAU is facilitating the development of online CoPs to cover all the functional disciplines of acquisition, technology, and logistics as well as critical cross-cutting business processes like risk management. These CoPs will provide the discretionary knowledge and links to community-member subject matter experts from both government and industry.”

The ACC was designed to provide the acquisition workforce with the ability to locate knowledge and experts on demand, at any time, from any location, with confidence that the information is valid and relevant. Program teams can work in specific communities within the ACC to find and share policies, regulations, guidance, examples, templates, lessons learned, and other relevant knowledge. They can also establish pri-

orate team and personal workspaces where specific program products can be developed and issues resolved. Additionally, ACC offers users the ability to interact online with other community members who have expertise in a particular subject area. According to Mike Dorohovich, DAU’s chief editor for ACC, “Creating a successful ACC requires more than just a business case: it requires careful planning, implementation, and working the ‘people’ side of the equation. The ACC does not just happen by throwing technology at a group of people. The quality and dedication of the core implementation team plays a critical role.”

Now that the ACC is steadily growing and the value can be seen, it is much easier to find others to take on the roles that previously had to be provided as an additional initial investment. That so many individuals of different backgrounds are voluntarily participating in ACC, that members are actively recruiting peers, and that even facilitator/editor roles are being filled by individuals outside of the supporting organizations all emphasize the success of early community development.

CoPs are a vital method of providing context to the information and process knowledge contained within an organization. They are available whenever you need them, offering anywhere, anytime support. CoPs help to improve job performance by developing individual skills and competencies and by increasing access to expertise to find answers, solve problems, and accomplish tasks.

To gain full access to and benefit from the site, you must be a member of the ACC (or a legacy member of PM CoP) and log in with a username and password. Membership allows access to other members’ contact information and allows members to participate in discussion threads, request workspace areas, and take advantage of a free personal Web space. To join the Acquisition Community Connection, goto <<http://acc.dau.mil>> and find the “Join” link located on the right side of the screen.

## Logistics Community of Practice

The Logistics Community of Practice (LOG CoP) was launched on July 21, 2003. Logistics is a fundamental component and a key enabler of the warfighter's ability to project force. The LOG CoP is intended to provide logisticians with a means to communicate, share resources, and interact with each other to support job performance in all aspects of the defense acquisition system and life cycle support (Figure 4). The LOG CoP is expected to provide the logistics workforce with access to the best available sources of information to enhance job performance. The LOG CoP is located at <http://log.dau.mil>.

Highlighting the importance of the LOG CoP, DAU Director of the Center for Logistics and Sustainment Randy Fowler stated, "This is a tool needed by both the DAWIA and non-DAWIA logistics workforce. It's a great reference in the DAU classroom, and their classroom experience becomes a great resource for workforce members to take back to the job site. Logistics and program management workforce members are especially anxious to use the LOG CoP's PBL [performance-based logistics] resources and collaboration power." Summarizing the potential for LOG CoP, Lou Kratz, deputy secretary of defense (Logistics and Materiel Readiness) and functional advisor for Life Cycle Logistics, noted, "LOG CoP could become a Center of Excellence for contemporary logistics tools and best practices."

If you have any questions or are interested in actively participating in the LOG CoP as a content area editor or facilitator, contact Jill Garcia, DAU knowledge project officer, at [jill.garcia@dau.mil](mailto:jill.garcia@dau.mil).

## Other Active Communities

**Program Management**—the Program Management Community is focused to support the unique responsibilities and functions of the program manager and deputy program manager. According to Air Force Maj. James Ashworth, DAU program director for the program management career field, "The Program Management Community is being de-

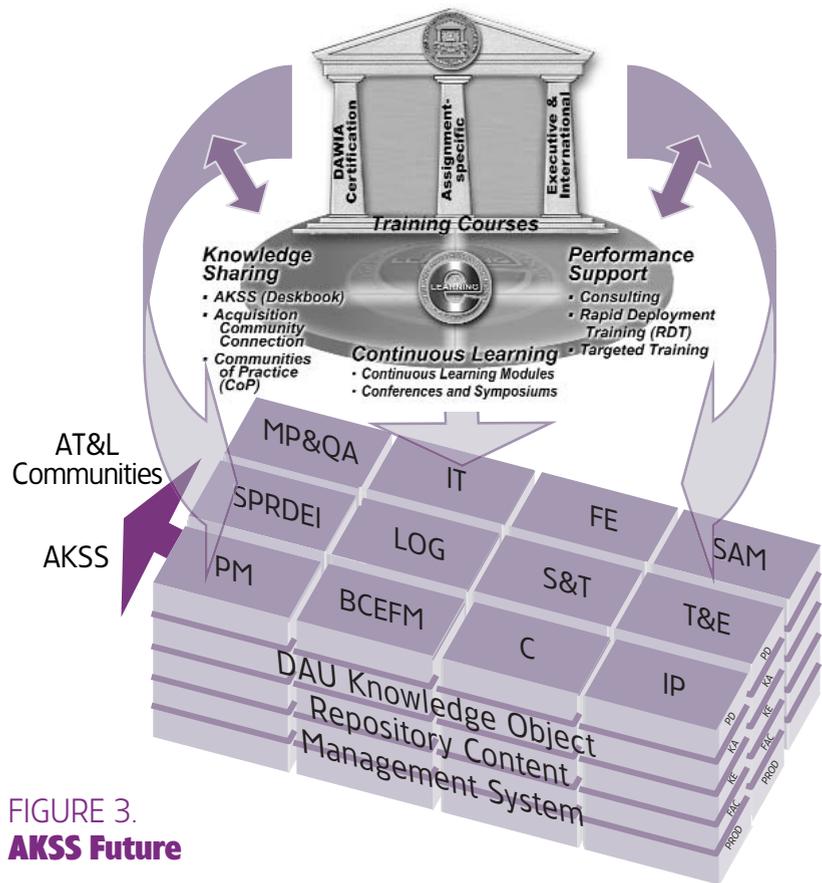


FIGURE 3.  
AKSS Future

veloped around a unique organizational knowledge structure to make it easier and more intuitive to find appropriate policy, processes, and tools." He added, "The structure breaks down into 'internal' processes/products (those activities typically conducted inside the Program Office); 'external' interfaces (activities between the program managers and outside organizations such as OSD, Congress, Defense Contracting and Management Agency, and industry); and special topics."

The community has a major effort called the "Essential Model Project" found at <http://acc.dau.mil/emp>. John Driessnack, DAU risk subject matter expert and one of the CoP's editors, explained, "The community will run the project over the next year with the goal of identifying the essential models and enduring principles for weapons program management. The DAU Alumni Association will host a special track in its conference next summer for the presentation of papers. It is a great example of how all facets of the university come together to develop knowledge."

**Contract Management**—the Contract Management (CM) Community is structured around supporting practitioners with the contracting processes, keeping them informed of changes within the contracting field, and offering a forum for communication and collaboration. The Contracting Community of Practice is being enhanced to provide specific areas of interest to include contingency contracting, performance-based service acquisition, and small business. The goal of the community is to add value in the acquisition process by providing the contracting workforce with the knowledge, resources, and collaboration tools to better support warfighters and their mission. Lyle Eesley, DAU director, Center for Contracting, said, "As members of the AT&L contracting profession and serving as business advisors, our goal is to support the warfighters and their mission. This is our focus as we restructure the contracting curriculum at all levels and facilitate the evolution of the Contracting Community of Practice."

If you have any questions or are interested in actively participating in the CM

CoP as an area manager/editor, please contact Jeff Birch, DAU knowledge project officer at [jeffrey.birch@dau.mil](mailto:jeffrey.birch@dau.mil).

**Systems Engineering**—the Systems Engineering (SE) Community provides guidance in the SE process, including requirements analysis and standardization, presents a variety of SE-specific tools, and encourages communication and collaboration among community members. The SE area currently has the largest number of postings: 180. The site contains a number of free job aids, such as the DAU and Air Force Space and Missile Command Systems Engineering guides. It also contains free software tools, such as the probability consequence software, risk management software, and the technology readiness level calculator. The SE Community of Practice is currently training editors to begin stand-up of sub areas of systems engineering. For more information, see the article “Building Communities of Practice” in the November-December 2002 issue of *Program Manager*, or go to [http://www.dau.mil/pubs/pm/pmpdf02/Nov\\_Dec/bro-jf3.pdf](http://www.dau.mil/pubs/pm/pmpdf02/Nov_Dec/bro-jf3.pdf).

**Risk Management**—the Risk Management Community provides a resource for job performance support structured around risk management. Driessnack

noted, “The [risk] community just finished pulling together experts in the field and produced a special edition of the *Acquisition Review Quarterly* journal (Spring 2003, Edition 33, (<http://www.dau.mil/pubs/arqtoc.asp>)). The edition has been a great success, with many requests coming in for additional copies. The community is currently tackling the various definitions used in risk management with the goal of producing a common standard. Our group got together on August 19 to outline the issues. The issues and a discussion thread can be found under the Risk CoP Community Connections. The results of our next meeting will likely evolve into a complete update to the DAU Risk Guide.”

**Facilities Engineering**—the Facilities Engineering career field encompasses a variety of professional individuals with diverse skills focused on the design, construction, and life-cycle maintenance of military installations, facilities, civil works projects, airfields, roadways, and ocean facilities.

#### Value of Communities

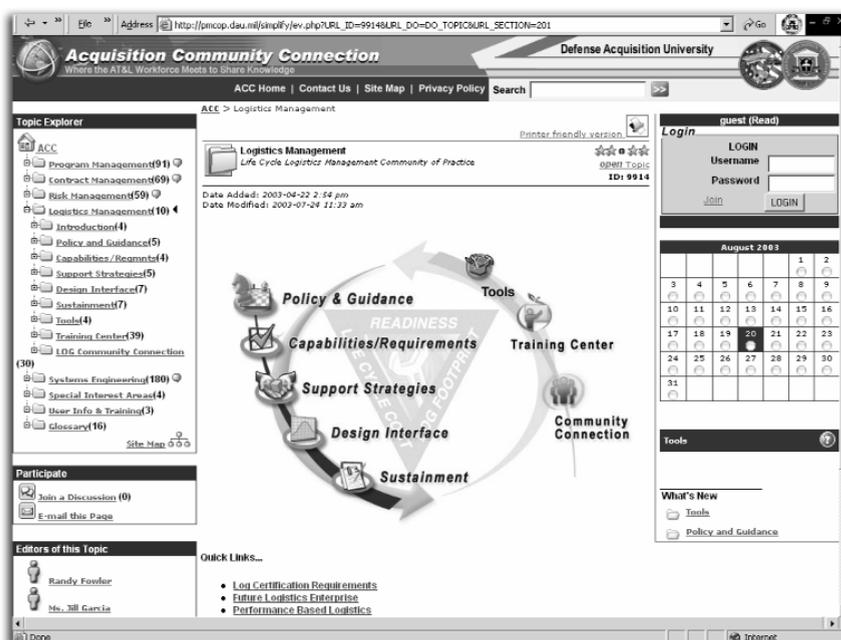
The value and usefulness of communities of practice rely on active community participation and the accuracy, time-

liness, accessibility, and applicability of community content.

“The value of the ACC is proven every day as more and more acquisition workers join and contribute their knowledge,” said Leesa Lafferre-Thomas, assistant chief editor for ACC. “The ACC has more than doubled in size during the past six months, based almost solely on word-of-mouth recommendation among co-workers. We frequently see comments from new users about the benefits of communities of practice, and ACC in particular,” she added.

**The new philosophy of directing users to the official source for references and documents assures them that they are accessing the most currently published version of policy documents and references.**

FIGURE 4. Logistics Community of Practice



You can help to make CoPs successful by contributing your knowledge and providing insight, feedback, lessons learned, and best practices, as well as by spreading the word to help the community grow.

#### CoPs—Future Plans

DAU is in the process of facilitating the establishment of communities of practice in all acquisition career field areas: total ownership cost, contractual in-

## EFFECTIVENESS OF CoPs

CoPs offer a collaborative structure that has proven to be extremely effective in the creation and transfer of knowledge within organizations. CoPs provide value to organizations by:

- Fostering interaction between new/more junior employees and senior/more experienced practitioners.
- Facilitating the building of mentor-protégé relationships.
- Fostering a broader organizational perspective among employees, providing a better understanding of how individual tasks fit into the larger organizational picture.
- Facilitating the rapid identification of individuals with specific knowledge or skills.
- Fostering knowledge sharing across organizational boundaries (boundary spanning).
- Promoting and facilitating the capture and re-use of existing knowledge assets and retention of organizational memory.
- Providing a safe environment to share problems and challenges and test new ideas.
- Facilitating collaboration across different time zones.

centives, software acquisition management, test and evaluation, financial management, business and cost estimating, information technology, earned value management, and manufacturing and quality. To date, DAU has developed a *CoP Implementation Guide* to assist in establishing and nurturing communities of practice. The guide outlines the processes and critical roles needed to foster and sustain communities. Several career field communities are in the early stages of development and will eventually become part of the ACC. As DAU continues to build and evolve the ACC, look for other communities of practice to be part of the Acquisition Community Connection.

### DAU and AKSS

DAU is working to provide products and services that foster and facilitate knowledge sharing and collaboration throughout the Department of Defense and industry. To support the AT&L workforce, DAU has adopted a new total learning environment approach under a performance learning model (PLM). The model shifts focus from the traditional classroom environment of the 20<sup>th</sup> century to learning resources available 24/7. This transformation is being accomplished by means of robust distance

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learning and continuous learning (CL) curricula, performance support, rapid deployment training, and the establishment of communities of practice and collaborative knowledge areas centered on AT&L career fields and business processes. DAU is focused on becoming more closely aligned with supporting the workforce on a real time basis. Through performance support and CoPs, DAU's schoolhouse interaction with the workforce will increase and offer a source of support and expertise previously untapped.

“AKSS and the CoPs in the Acquisition Community Connection Web site are being developed to support the entire AT&L workforce—the government and industry teams working together to provide the weapons and support systems,”

said Hickok. “AKSS and its link to CoPs,” he continued, “support all elements of DAU's PLM. AKSS and CoPs are the 'go-to' sites for detailed knowledge sources to support course curricula, both for online distance learning courses and those in the classroom.” Hickok also emphasized that AKSS links to the DAU CL Center and the index of all CL modules. CL modules are contributed to applicable CoPs as “learning objects.”

The overall assets in AKSS are available to support DAU's performance support (PS) and rapid deployment training (RDT) missions. Through DAU CoPs, PS and RDT resources are stored and shared. PS and RDT presentations and documents are contributed to applicable CoPs. AKSS and CoPs provide 24/7 resources for job performance support and informal continuous learning, and the mechanisms for DAU to share DAU resources in partnership with OSD, the Services, Defense Agencies, and industry.

Commenting on the importance of input from the AKSS users, Hechmer said, “We appreciate all of the feedback we have received to date. We are acting on that feedback to continue to improve this site and provide you with a true golden source of all acquisition-related content.”

### Final Thoughts

As the AKSS matures, and the buildup of communities evolves, so too will grow the richness of content and interaction associated with each community. The sharing environment created by AKSS and communities will provide the workforce with the capability to continuously evolve, refresh the AT&L knowledgebase to support new issues, overcome new challenges, and to foster an environment of continuous learning and innovation.

**Editor's Note:** More information on AKSS and Communities of Practice is available at <[www.dau.mil](http://www.dau.mil)>.