

Case Files: **The Naval Sea Systems Command**

► KNOWLEDGE MANAGEMENT

Building a Better Battleship

The Naval Sea Systems Command finds the best approach to knowledge management is one step at a time.

BY **STEPHANIE OVERBY**

Executive Summary

Because the requisition of a U.S. Navy ship or warfare system takes several years, the organization in charge of that process, the Naval Sea Systems Command (NAVSEA), developed best practices to reduce the money and time spent during the acquisition life cycle. It's hard to retain those best practices, however, since NAVSEA invariably loses employees to retirement or new tours of duty during the years it takes to build a naval vessel. A knowledge management database was the answer. But Navy culture emphasizes information confidentiality and internal competition, so sharing information did not come naturally to NAVSEA's 45,000 employees. NAVSEA succeeded by ensuring an immediate reward for sharing knowledge in each best practice area: an easier way to get tasks done. For steadfast resisters, NAVSEA made it impossible for them to work with anyone else without giving up their own piece of information.

THINK YOU'VE GOT procurement problems? Try buying battleships. The Naval Sea Systems Command (NAVSEA), which engineers, builds and supports the entire U.S. Navy fleet, manages more than 130 acquisition programs worth about \$20 billion a year for everything from solid waste shredders to next-generation nuclear aircraft carriers. Yet NAVSEA historically had no established rules for running those hundreds of programs. And during the years it takes to build, say, a ship or a submarine, NAVSEA invariably lost many of its employees to retirement or new tours of duty. Out went the experience those employees gained about the acquisition process and in came increased time and costs to re-create that knowledge.

In 1999, NAVSEA began to look for a solution to its problems and found an answer in the form of a knowledge management database of acquisition best practices. But getting the database was only one challenge for NAVSEA, headquartered in Washington, D.C. NAVSEA had to get its 45,000 team members working around the country to participate in the new KM system. Given that the Navy's culture emphasizes internal competition rather than cooperation, instilling the need to share information was a tough roadblock.

But NAVSEA did eventually win over many of its workers with the benefits of the acquisition knowledge database. And in the process, NAVSEA developed its own best practices for knowledge management implementation: Take it slow and show people why it pays to share.

Shape Up or Ship Out

The origins of the acquisition knowledge database go back to the Clinton administration. Tom Eden, then-director of

COMPANY INFO

REVENUE

NA

ANNUAL BUDGET

\$18.8 billion in 2001

HEADQUARTERS

The Navy Yard,
Washington, D.C.

EMPLOYEES

45,000

MISSION

Engineers, builds and supports ships and combat systems for the U.S. Navy

URL

www.navsea.navy.mil

KM PROBLEM

Capture and share employees' knowledge and experience about the Navy's acquisition life cycle processes

THE PLAYERS

TOM EDEN

Director, acquisition logistics division

THE EXPERT

JERRY ASH

Founder and chief executive, The Association of Knowledgework

URL

www.kwork.org

NAVSEA's Acquisition Reform Office, and others in the armed forces were charged by the former president to improve the way they bought things. Acquisition at NAVSEA is a protracted process—building a ship or a high-tech warfare system takes several years. And once a ship or system is delivered, the cost to operate it is roughly 80 percent determined. So in an effort to cut costs and reduce the number of sailors required to operate a ship or system, the Navy wanted to focus on the way its products were made much earlier in the process. "We wanted to make sure we were getting what we wanted along the way, rather than waiting until we get the product years later," Eden says.

Eden oversaw the acquisition reform process that aimed to reduce the money and time spent to get a product to the fleet. As part of that effort, Eden sought to introduce a set of best practices for NAVSEA acquisitions. In the past, if one of NAVSEA's buyers in Rhode Island wanted to learn about the purchasing process, Eden would fly in an expert to conduct a workshop in person. Wouldn't it be better, Eden thought, to instead provide continuous access to expert knowledge?

At the same time, NAVSEA's leadership was concerned about the maturing workforce. The average age of department employees was late 40s, which in Navy terms is near retirement. There was concern about all that knowledge walking out the door, even in the civilian ranks, according to Eden. "We needed to make sure that the knowledge that supported the NAVSEA structure was preserved," he says.

Not Another Data Dump

Previously, knowledge management at NAVSEA and elsewhere in the Navy consisted of throwing together websites, an approach Eden knew didn't work. "They were a place to dump data, but they didn't preserve any knowledge," he says.

So Eden and his team began to work with consultants at AMS, a Fairfax, Va., consultancy, to figure out a better KM battle plan. First they defined the processes within NAVSEA that needed to be captured in a virtual knowledge management environment. "We sat people down and said, 'We're going to look at where information comes from and



"What KM had wrought was a vastly improved, easier way of getting the business done. It was a great morale booster and the single greatest factor in marketing KM to employees."

—TOM EDEN, DIRECTOR
OF NAVSEA'S
ACQUISITION LOGISTICS
DIVISION

start mapping how it flows at a gross level so we can get an idea of how the entire acquisition process works," says Eden. He met with individual practitioners in NAVSEA to come up with a list of 16 best practices they wanted to safeguard, including the total ownership cost process (the means of determining the life cycle costs of a ship and methods for reducing those costs), the commercial acquisition process (defining the policies and procedures for buying off-the-shelf items) and the acquisition reform process itself.

The list complete, Eden then met once a week with six or seven employees involved with a particular business process and potential best practice in order to figure out how to translate that process for inclusion in the acquisition knowledge database. He and his team began with the best practices that NAVSEA management determined would have the greatest potential to improve the acquisition process. The first to go live in the knowledge database was Eden's own community of practice, acquisition reform.

The process to identify the best practices, prioritize them and take them online lasted from December 1999 until April 2001. The ultimate goal of the KM effort was to develop a library of best practices based on NAVSEA's acquisition life cycles—from setting standards, creating RFPs and awarding contracts to product delivery, deployment and decommissioning—that promoted an integrated approach to capturing, organizing, sharing and using acquisition knowledge throughout the organization.

Getting Their Sea Legs

Throughout the KM implementation process, Eden met with a lot of resistance. It was particularly difficult to get NAVSEA employees to change their view of knowledge from that of a personal asset to an organizational one. "When we started asking for the numbers and assumptions associated with a particular process, people would say, 'That's confidential,'" Eden says. "Because of the culture of the Navy and the culture of bureaucracy, people were reluctant to take something out of their desk drawer and put it where other people could access it." After all, NAVSEA and the Navy's other commands were set up with creative tension in mind. If the executive program office for aircraft carriers seeks money for the new *USS Ronald Reagan*, it's in competition with the executive program office for submarines looking to requisition a new Sea Wolf. As a result, both sailors and civilians working at NAVSEA associated privately held knowledge with influence. "It's not any different than many corporate environments where closely held knowledge is associated with personal power," says Ray Bjorkland, vice president of consulting services for Federal Sources in McLean, Va. "People think that knowledge is power, and if they share it, nobody will value them."

So Eden had to figure out a way to create a reward system for sharing knowledge. "We're very limited when it comes to doing that," he says. "The only big benefit we can offer is greater efficiency. We can make your work easier for you." Although that's often the only benefit that ultimately matters, it's tricky to convey. "When you're trying to introduce a knowledge management system, it's not just a matter of how you get people into the mode of sharing information," says Bjorkland. "It's how you demonstrate to them that sharing information will make their life better. You have to show people who are holding information that if they begin to share it, it will relieve them so that they can do even grander things."

In order to exhibit those benefits right away, NAVSEA went about its KM program one best practice at a time. "Our main objective was to give immediate value to what our team members were doing right then—immediate value to the business process," Eden says.

"So we had to say, 'We're going to take this one part of what you do and show you value very quickly.'"

For example, members of one group working on total ownership costs concluded that an important monthly report was a good candidate for improvement. "They used the electronic environment we had prepared to request inputs for the report, comment on the data through discussion threads, and edit and issue the report. In the process, all that history was systematically

"Some people were closefisted about their knowledge. But in the end, they had to give it up."

**—TOM EDEN,
DIRECTOR OF
NAVSEA'S
ACQUISITION
LOGISTICS DIVISION**

stored so the next time the report would be even easier to create." Before, the report was created laboriously via e-mails and in-person meetings, and it involved stacks of paper and mail. "What KM had wrought was a vastly improved, easier way of getting the business done. It was a great morale booster and the single greatest factor in marketing KM to employees," says Eden. "Highly paid NAVSEA analysts were able to do what they were paid to do and wanted to do—analyze and think—versus doing secretarial work, running from one meeting to the next, trying to make sense of run-on conversations and constantly answering the same questions over the phone."

For those still reluctant to climb aboard, Eden took a more hard-line approach. "Some people were still very closefisted and guarded about their knowledge. But in the end, they had to give it up because there was going to be no other way of doing business with everyone else," Eden recalls. "We had to say, 'This is the way we're doing things now, and if you want to accomplish what you have to do, you're going to have to give that piece of information up.'"

Expert Analysis

Expert Analysis by Jerry Ash: the freeze on funds now need not stall this initiative.

[Read More](#)

Winning Battles, not the War

So far, NAVSEA has been able to implement about seven of 16 best practices in the acquisition knowledge database. NAVSEA leadership gave Eden and his team money in phases, based on how the project was progressing. But last spring, when then-CIO Jill Garcia made the case for more money to complete and expand the project to the executive steering committee and NAVSEA's commander, Vice Admiral G.P. Nanos, she met with resistance. NAVSEA had spent about \$65,000 on each best practice that went into the database. After spending nearly half a million dollars, executives began to squawk. It's an issue that plagues KM efforts at any organization that doesn't have a bottom line. "It's hard to justify and quantify IT investments in a top-line organization like the Navy where funds are appropriated by Congress," says Bjorkland. "And in the military, you can't necessarily see benefits for months, years, even decades."

Although NAVSEA continues to work on getting the remaining nine best practices into the acquisition knowledge database, the executive committee has frozen any further expansion for now. "It's too bad because it's a great way to do business," says Eden, who has moved on to become director of NAVSEA's acquisition logistics division. Although Eden says the benefits were clear in terms of time saved, e-mail reductions and meetings avoided, they were never quantified. "We were at a point that the savings were evident to the community members and to leadership, and that seemed to suffice," he says. "In hindsight, perhaps we should have methodically captured the savings in the interest of gaining a firmer commitment to doing the things at the corporate level to grow KM."

But Bjorkland thinks the knowledge management movement at NAVSEA and elsewhere in the armed forces will continue to advance, if only little by little. "Even if you start with baby steps, unless you can figure out a way to leverage it at the highest levels of the organization, it will be a slow process," says Bjorkland.

Even though the acquisitions knowledge database hasn't progressed as hoped, Eden is certain that it represents the future

for NAVSEA. "It's the path our business must take, and I think there's a tacit acknowledgement of that by top management," says Eden. "I believe it will be given renewed emphasis eventually, maybe by a new generation who knows that a virtual environment is just as real as a plane trip to see the customer or a packet of papers you can hold in your hand." **CIO**

Expert Analysis

Expert Analysis by Jerry Ash: the freeze on funds now need not stall this initiative.

[Read More](#)

Share your IT war stories with Senior Writer Stephanie Overby at soverby@cio.com. Send your KM story to Senior Editor Megan Santosus at santosus@cio.com.

PHOTO BY KATHERINE LAMBERT

All content copyright CXO Media Inc., 1994-2001. All rights are reserved. No material may be reproduced electronically or in print without written permission from CXO Media, 492 Old Connecticut Path, Framingham, MA 01701.



CIO Magazine - May 1, 2002
[© 2002 CXO Media Inc.](http://www.cio.com)

<http://www.cio.com/archive/050102/battleship.html>

EXPERT ANALYSIS

The Quid Pro Quo of KM

BY JERRY ASH

IT IS FORTUITOUS that the Naval Sea Systems Command (NAVSEA) gravitated toward knowledge management while developing its best practices database because the freeze on funds now need not stall the initiative. On the contrary, it may well allow time to shift the emphasis from database construction to creation of a knowledge-sharing environment that will effectively use it. The key to a successful database is data use.

It appears that NAVSEA recognized human, Navy and bureaucratic culture problems only after it decided at the top what it would do; and then it met with small groups to figure out how to do it. That's a classic KM mistake. Resistance should have been gauged and dealt with long before the executives set sail.

That's because knowledge work is a grassroots activity, even in the Navy. A database can capture 20 percent of what employees know. Any directive to "do it the KM or Navy way" will result in only a fraction of that. It's not so much what's in the desk drawer that's at issue; it's what's in the mind. Hence, in order for KM to be truly effective, employee buy-in has to be considered from the start.

While a goal of the program is to retain knowledge as a hedge against turnover, the stakeholders need to be convinced that they are not giving it away. Rather, they are offering their knowledge in return for a share of others' knowledge. The combination will make them more informed and better candidates for commendation and promotion. To get employees on board, NAVSEA should assure them that use of the database will lead to career development.

Like many organizations, NAVSEA seems to believe that employee turnover is all detrimental. In a true knowledge-sharing environment, the constant turnover in employees can be a gain as well as a loss. New employees will bring new knowledge and innovative ideas to the teams. Old knowledge will blend with the new (in minds as well as computers) before people move on. Organizational knowledge then becomes dynamic and ongoing.

Seen in this way, the project is not incomplete. It has breathing room to grow.

Jerry Ash is founder and chief executive of The Association of Knowledgework (www.kwork.org), a Web-based group composed of people from 90 countries who are engaged in knowledge work. He can be reached at jash@kwork.org.