DOD FINANCIAL MANAGEMENT: FOLLOWING ONE ITEM THROUGH THE MAZE

HEARING

BEFORE THE

SUBCOMMITTEE ON NATIONAL SECURITY, VETERANS AFFAIRS AND INTERNATIONAL RELATIONS

OF THE

COMMITTEE ON GOVERNMENT REFORM

HOUSE OF REPRESENTATIVES

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DOD FINANCIAL MANAGEMENT: FOLLOWING ONE ITEM THROUGH THE MAZE

TUESDAY, JUNE 25, 2002

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON NATIONAL SECURITY, VETERANS AFFAIRS AND INTERNATIONAL RELATIONS,
COMMITTEE ON GOVERNMENT REFORM,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:04 a.m., in room 2154, Rayburn House Office Building, Hon. Christopher Shays (chairman of the subcommittee) presiding.

Present: Representatives Shays, Gilman, Lewis, Kucinich, Schakowsky and Tierney.

Staff present: Lawrence J. Halloran, staff director and counsel; J. Vincent Chase, chief investigator; Thomas Costa, professional staff member; Jason M. Chung, clerk; David Rapallo, minority counsel; and Earley Green, minority assistant clerk.

Mr. SHAYS. I'd like to call this hearing to order and welcome our witnesses and guests. I always feel "got" when we have the military and we don't start promptly on time, but 5 minutes ain't bad, I guess.

Two weeks ago the General Accounting Office, GAO, and the Department of Defense, DOD, gave us a high-altitude view of the Pentagon's tangled antiquated web of more than 1,200 financial management systems. Today we journey deep into the microcosm of DOD accounting to take a much closer and more detailed look. Last year after the Comptroller General again declared DOD financial systems posed a high risk of waste and abuse, our subcommittee ranking member, Congressman Kucinich, suggested it might be both instructive and constructive to follow one item from the initial idea all the way through to procurement and operation, so we asked GAO to track the accounting path of a DOD-unique item, the Joint Lightweight Integrated Suit Technology, referred to as JSLIST, chem/bio protective garments; and a second item, one commercial computer item obtained using a DOD purchase card.

The case studies GAO will discuss today bring some DOD financial and inventory management deficiencies into painful and, frankly, horribly sharp focus. Purchase of the military's newest individual protective equipment is hobbled by needless, complex, repetitive, largely manual, error-prone systems. Despite pledges to this subcommittee 2 years ago to fix scattered inventory controls, DOD still cannot provide a real-time accounting of the location and condition of critical protective equipment.

As a result, some military units have formally declared JSLIST garments surplus, while others cannot get enough suits for training. While DOD is scheduled to procure 2.8 million more JSLIST units for approximately $100 each, GAO found 917 of the 1.2 million already purchased had been auctioned on the Internet for less than $3 each.

This form of waste directly affects readiness. When the chemical alarms again sound in the desert, U.S. forces will need those suits. Transformation of DOD's last-century financial management systems into a 21st century enterprise architecture is a critical element of their ability to survive and prevail against tomorrow's threats.

Joining us today are representatives of the Department of Defense, the GAO, and an expert in business processes, to discuss and evaluate the flow of information through the various systems used to procure, pay for and deploy the joint lightweight integrated technology suit, and a computer hardware item procured from a local vendor using the government purchase card.

We truly thank all of them for being here and for contributing to our continued oversight of DOD financial management and inventory control systems. And let me just say given that it seems so obvious that we have a gigantic challenge, we aren't up here throwing grenades down on our witness table. We understand that everybody wants to get this—a handle on this issue. We need to make sure it is the highest priority of DOD. That is part of the motivation of why Mr. Kucinich and I want this hearing. We realize there are men and women of good faith who are trying to deal with this issue, but we're going to be brutally honest with each other in terms of what the challenges are and how we deal with it. This just simply can't continue and continue and continue.

So at this time I thank my colleague, Mr. Kucinich, for requesting this hearing, and give him the floor.

[The prepared statement of Hon. Christopher Shays follows:]

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Statement of Rep. Christopher Shays
June 25, 2002

Two weeks ago, the General Accounting Office (GAO) and the Department of Defense (DOD) gave us a high altitude view of the Pentagon's tangled, antiquated web of more than twelve hundred financial management systems. Today we journey deep into a microcosm of DOD accounting to take a much closer look.

Last year, after the Comptroller General again declared DOD financial systems pose a high risk of waste and abuse, our Subcommittee Ranking Member, Congressman Kucinich, suggested it might be both instructive and constructive to follow one item "from the initial idea all the way through to procurement and operation." So we asked GAO to track the accounting path of a DOD-unique item – the new Joint Lightweight Integrated Suit Technology (JSLIST) chem/bio protective garments – and one commercial computer item obtained using a DOD purchase card.

The case studies GAO will discuss today bring some DOD financial and inventory management deficiencies into painfully sharp focus. Purchase of the military's newest individual protective equipment is hobbled by needlessly complex, repetitive, largely manual, error-prone systems. Despite pledges to this Subcommittee two years ago to fix scattered inventory controls, DOD still cannot provide a real-time accounting of the location and condition of critical protective equipment.

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We thank them all for their contribution to our continuing oversight of DOD financial management and inventory control systems.

Mr. KUCINICH. Hi. I want to thank the Chair for the opportunity to work with you on this and so many other hearings of importance to this country, and I'm appreciative of the Chair's leadership in that regard.

The point of GAO's investigation, which you and I requested in a bipartisan manner, was a straightforward one, to track a single procurement item through the maze of different accounting, inventory and financial management systems at the Department of Defense. When we first requested this study, I expected the exercise to illustrate in a very simple yet compelling manner the duplication, waste and inefficiency that has plagued the Pentagon's management systems. As a subcommittee, we've heard many, many times about the horror stories at the Pentagon, the lack of coherent inventory control, the proliferation of stovepipe procurement systems, and the absence of any rational visibility over budgetary functions.

We've also heard from experts like David Walker, the Comptroller General of the United States, and the Pentagon's own Inspector General, both of whom highlighted the billions and billions of dollars that are wasted every year as a result of these broken systems.

What I did not expect as a result of our quest was to be surprised again by the severity and the starkness of the Pentagon's inability to be able to understand exactly how their own systems work and to be able to account for the very materiel which the taxpayers of the United States pay for.

As you know, the GAO chose one item, a suit worn by service members to protect themselves in the event of a chemical or a biological attack. Obviously in light of the anthrax attacks and our military's deployment to all parts of the world, these suits are extremely sought-after. The department is spending over $1 billion to buy these suits at $200 apiece. The Pentagon plans to buy 4.4 million of these suits, but to date they've issued only about a quarter of these. According to the official in charge of this program, service members have been clamoring for these suits. Now, despite this intense demand, GAO found that the Pentagon was basically giving them away. They were selling them on the Internet for $3 apiece. That is nearly a 99 percent discount from their actual cost to the U.S. taxpayers.

Now, I want to read that again so, you know, in case anybody missed it, the department spends $1 billion to buy these suits at $200 apiece, plans to buy 4.4 million of the suits. GAO finds the Pentagon is selling them on the Internet for $3 apiece.

Now, the GAO found that some of the military units kept absolutely no records on the number of suits they had. Others used dry-erase boards to maintain their tally. When told of these abuses, the program manager said he had no idea that these resales were occurring. He conceded at this point that he had no visibility over his inventory.

These problems would be very different if they were being aired for the first time, but they are not excusable, given that this subcommittee held a hearing 2 years ago on exactly this issue.

This is how GAO put it, "In essence, DOD is faced with the same predicament today as it had in June 2000 when hearings by this

subcommittee chronicled DOD's inability to identify the location of these protective suits."

In our hearing 2 years ago, we were concerned about the Pentagon's control of these suits for a slightly different reason. The suits were defective. They needed to be recalled and removed from the inventory. But to this day, the Pentagon has not been able to locate about 250,000 of these defective suits. The Pentagon doesn't know if they were used, whether they were thrown away, or whether they are still somewhere in the stocks, defective suits waiting to be used by unsuspecting service members.

For that matter, the Pentagon doesn't know whether any of these suits were sold over the Internet, either.

Of course, we asked the GAO to examine only one relatively inexpensive item, but the dysfunctional systems governing this item are the same systems governing all of the Pentagon's purchases, budgets and inventories. As the GAO concluded in its report, "these shortcomings are consistent with the long-term problems in the DOD's inventory management that we've identified as a high-risk area due to a variety of problems, including ineffective and wasteful management systems and procedures."

Mr. Chairman, we're just scratching the surface of a mammoth problem here today. If we're losing millions of dollars on a small procurement item like the protective suits, imagine how many billions of taxpayer dollars are being wasted on procurement problems associated with our expensive jets, bombers, tanks and ships. This subcommittee isn't able to work on everything. Since we have to choose, we should focus on the items that waste the most taxpayers' dollars. This is a good example today.

As we heard in our previous hearings on this topic, the department has set out a 10-year plan to address their financial management deficiencies. This time line is much, much too long for American taxpayers to continue sending in their hard-earned money, just to have the Pentagon throw it away.

And finally, Mr. Chairman, the thing that becomes compelling here, since this country is contemplating possible military action against a country which is said to have biological and chemical weapons, and since you would think under those circumstances our troops would then be given the kind of materiel which in some cases is considered to be defective, we have a matter here that has to be looked at to protect the men and women who serve this country.

I thank the Chair very much for giving me this opportunity.

Mr. SHAYS. I thank the gentleman for requesting this opportunity.

We would now call on Ron Lewis.

Mr. LEWIS. Nothing.

Mr. SHAYS. Thank you. Thank you for being here. Mr. Lewis has been a very active and valued member of this committee.

And I'll also call on another very active Member. Ms. Schakowsky, if you have any comments you'd like to make before——

Ms. SCHAKOWSKY. Yes, I would.

Mr. SHAYS. Take your time.

Ms. SCHAKOWSKY. Thank you, Mr. Chairman, and Ranking Member Kucinich, for your vigilance on this issue. The Government Affairs—the Government Efficiency Subcommittee, which is chaired by Steve Horn and on which I am the ranking Democrat, has also been looking into the issue of the Department of Defense and its handling of financial matters. The financial abuses that have occurred at the Pentagon and the DOD's lack of initiative and willingness to change its financial management practices is an ongoing problem. Despite the fact that the Defense Department is responsible for half of the total discretionary spending of the Federal Government, nearly $400 billion, the DOD is slow to implement changes in many areas of its operations to better account for taxpayer money.

In 1995 the GAO put the Defense Department's financial management on the high risk list. One of the issues stated by the GAO then was the failure of the department to protect its assets from fraud, waste and abuse. Since then we found that millions of dollars in personal items, trips, and even plastic surgery were charged to government-issued credit cards. In the GAO report on DOD financial management, the GAO tracked the DOD's purchase of joint lightweight integrated suit technology—I guess that is—is it the JSLIST? Is that what you say? Am I right? JSLIST. OK. And a computer hardware item that it purchased from a local vendor with a DOD purchase card. The Pentagon contract for JSLIST, a two-piece lightweight garment, I guess we've got it here, to protect against chemical and biological agents, calls for the production of 4.4 million suits over 14 years, for a total of $1 billion. The GAO found that antiquated systems, manual procurement processes and inventory control and payment is plagued by flaws and weaknesses that cost the DOD millions. GAO found that because of these problems, suits determined to be in excess—we have long since known about the problems with the DOD purchase card system. The DOD still manually enters purchases made with purchase cards instead of electronic transmissions. Inefficient billing procedures and use of nonintegrated data systems result in costly processing.

In example after example, purchase cards supplied at taxpayers' expense to workers who use them to, among other things, purchase items such as clothing and Legos. GAO stated that purchase cards will account for nearly $20 billion in purchases in this fiscal year or the next. If there is 5 percent waste in these purchases, that is $1 billion of waste that we have to eliminate.

The GAO has provided the Pentagon with the foundation on which to build. DOD must make every effort to improve upon these recommendations so that we can ensure that the American taxpayers' hard-earned money is spent defending our country and not paying for golf memberships.

The reasons behind these management problems are—come in several areas, problems with financial and contract management result from inaccurate financial reports and contract overpayment. In fact, for fiscal years 1994 and 1999, over $1.2 billion of overpayments to contractors have been returned to the DOD.

We've also found that DOD's management inventory is flawed. DOD continually stores huge amounts of materiel and equipment that has no use. Additionally, the DOD process for tracking acqui-

sitions and purchases is antiquated and seriously flawed. Oftentimes DOD cannot find records of procurement, accounting, control and payment.

Actually, Mr. Chairman, what this statement sounds like to my own ears is deja vu all over again. I have basically read this opening statement time after time after time. I've only been here a short time, and yet the improvements or lack of are quite astonishing, and here we go again.

Last July we were told that the purchase card issue would be addressed. Instead we got business as usual, fraud, waste and abuse. I do not expect the same today. I hope that the DOD will begin to take the recommendations of the GAO seriously and use the advice to design and implement programs that will improve the DOD's financial management situation.

I thank all the witnesses for their work, and I look forward to hearing how our guests from the DOD plan to make use of the information they receive from the GAO at this hearing and how they plan to clean up the Pentagon's financial mess.

Thank you.

Mr. SHAYS. Thank you, Ms. Schakowsky.

Mr. Tierney, welcome.

Mr. TIERNEY. Thank you, Mr. Chairman. I'm going to waive my opening statement, because I'd really like to get to the witnesses. I think the hearing is worthwhile, and it will be interesting to pursue the matter.

Mr. SHAYS. We'll get right to it. I'm just going to preface my comments by saying that I go back a little beyond Ms. Schakowsky, and I remember we had this problem in the Reagan administration, the Bush administration, the Clinton administration, and now we have it in the Bush administration. And I realize that this has been long-standing, and I think part of the reason why it doesn't happen is that you're not put out of business. We need Defense. So we keep operating. But if we knew that we couldn't function unless we got our act together, I think it would happen more quickly.

Mr. Gilman, I'm delighted to recognize you. I want you to relax a second. You just sat down, but if you have an opening statement——

Mr. GILMAN. Yes, I do, Mr. Chairman. I welcome that opportunity.

Mr. SHAYS. OK. Take a good breath and then read your statement.

Mr. GILMAN. OK. I'm breathing deeply.

Mr. Chairman, I want to thank you for convening today's hearing to examine the status of the Department of Defense financial management system, in particular how it relates to a key item that depends with regard—that is with regard to how we defend against biological and chemical agents. The Defense Department has been the recipient of large increases to its procurement and operations budget in the wake of the events of September 11th and the subsequent pursuit of our war on terrorism.

Given the nature of the fight that we're finding ourselves in, these increases have been entirely appropriate. However, the existence of an ongoing war against terrorists does not absolve Congress of its oversight responsibilities in matters of defense. Rather, re-

cent events mandate greater oversight responsibility from Congress to make certain that taxpayer funds are going to be expended in a wise and expeditious manner.

Given the current military environment in which we find ourselves, it is prudent and appropriate that we work to ensure that the Department of Defense is getting the best value for the money it spends on the new equipment.

This subcommittee held a hearing in March of this year that examined charges from the General Accounting Office that DOD's financial management and procurement process were highly vulnerable to waste, to fraud, and to abuse. Historically whenever the government has sharply increased a department's budget within a short period of time, waste and fraudulent practices and inefficiency invariably follow.

Stories of widespread problems during the major defense buildup in the early 1980's are familiar to all of us. So I look forward, Mr. Chairman, to the testimony from our witnesses today. We're particularly interested to hear from our GAO witnesses to see if any improvements have been made since their initial findings discussed at our March 2001 hearing.

Given the nature of the open-ended conflict in which we now find ourselves involved, it makes sense for Congress to require that the financial management system used by the Pentagon be as streamlined and as efficient as possible.

Once again, we thank you, Mr. Chairman, for convening today's hearing and for pursuing these issues that are extremely important. Thank you, Mr. Chairman.

Mr. SHAYS. Thank you. Per Mr. Tierney's request, we're going to get to our witnesses but first ask unanimous consent that all members of the subcommittee be permitted to place an opening statement in the record and that the record remain open for 3 days for that purpose. Without objection, so ordered.

I ask further unanimous consent that all witnesses be permitted to include their written statement in the record. Without objection, so ordered.

I will announce our witnesses. We have Mr. Gregory Kutz, Director, Financial Management and Assurance Team, GAO; accompanied by David Warren, Director, Defense Capabilities and Management Team; Mr. Darby W. Smith, Assistant Director, Financial Management and Assurance Team; and Mr. John Ryan, Office of Special Investigation. All three are with the GAO.

We also—we're going to swear in Mr. John Coyle. He's on a plane. He's the Department of Business Logistics, Pennsylvania State University, and probably may have to put him with the second panel. We'll see. And if he gets here on time, maybe I'll swear him in and we'll keep him with the first.

So if you gentlemen would stand, I will swear you in. If there's anyone else that might respond to questions, if you'd just allow us to swear you in as well.

[Witnesses sworn.]

Mr. SHAYS. I'll note for the record that all of our witnesses have responded in the affirmative. And so we have one statement by Mr. Kutz and then we'll go to questions if Dr. Coyle isn't here yet. Welcome.

STATEMENTS OF GREGORY KUTZ, DIRECTOR, FINANCIAL MANAGEMENT AND ASSURANCE TEAM, U.S. GENERAL ACCOUNTING OFFICE, ACCOMPANIED BY DAVID WARREN, DIRECTOR, DEFENSE CAPABILITIES AND MANAGEMENT TEAM; DARBY W. SMITH, ASSISTANT DIRECTOR, FINANCIAL MANAGEMENT AND ASSURANCE TEAM; AND JOHN RYAN, OFFICE OF SPECIAL INVESTIGATION

Mr. KUTZ. Mr. Chairman and members of the subcommittee, it's a pleasure to be here to discuss the need for business process reform at the Department of Defense. In our June 4th testimony before this subcommittee, we identified seven key elements necessary for a successful reform. Today I will move from a high-level discussion of reform to case studies demonstrating DOD's current management challenges.

At your request, we used the following two case studies. First, the inventory process for the JSLIST, chemical and biological protective suits, which I'll refer to as chem/bio suits, and second, the purchase of a computer using the government purchase card.

For the two case studies, our objectives were to evaluate the efficiency and the effectiveness of DOD's business processes and to compare certain aspects of DOD's processes to those of two large leading-edge retail companies, Wal-Mart and Sears.

The bottom line of my testimony is that both case studies clearly demonstrate that DOD's business processes are both costly and ineffective. Most significantly, we found that DOD was selling needed chem/bio suits to the public while at the same time buying more.

For the first case study, we found that the chem/bio suit inventory process was characterized by stovepiped, nonintegrated systems with numerous costly, error-prone, manual processes. Of the 128 processing steps that we identified, 100, or about 78 percent, were manual. These manual processes were used to enter and reenter data into the 13 data systems that supported the chem/bio suits. Manual processes include mailing key data, sending e-mails and faxes, and inputting data from hard copy documents into the systems.

As you can imagine, compared to fully automated processes, the cost of manual entry of data and reentry is substantial. One reason for the numerous systems that are unable to communicate with each other is the parochial nature of DOD's system modernization efforts. As you may recall, as of your June 4th hearing, and as you showed earlier from the computer system environment that they have today, DOD has identified 1,127 systems that process financial information. This proliferation of systems has happened because modernization money is spread throughout DOD with everybody, particularly the military services, building their own systems.

With respect to effectiveness, we found that the inventory management process resulted in a lack of asset visibility over the chem/bio suits. Asset visibility means the ability to readily identify the location and key information about the suits at all levels of the department.

The most severe asset visibility problem relates to the 1.2 million suits that have been sent to units of the military services. For the military units that we visited, the methods used to control and maintain visibility over suits range from automated systems to

spreadsheet applications, to pen and paper, to dry-erase boards with handwritten notes, to none.

The data maintained at the units also varied. Some units maintain specific data such as the manufactured date and production lot number, while other units contain little or no data in their systems.

In essence, as you mentioned, Mr. Chairman, DOD is faced with the same visibility problems today as it had in June 2000 when hearings by this subcommittee chronicled DOD's inability to identify the location of defective battle dress overgarments which are the JSLIST predecessor. We later reported that as of April 2001, DOD had not found about 250,000 of the defective BDO suits.

Today, lack of visibility has contributed to DOD excessing packaged unused JSLIST chem/bio suits and selling them to the public or scrapping them. At the same time, DOD is buying hundreds of thousands of new suits annually. We identified 1,934 chem/bio coats and trousers valued at over $200,000 that were excessed primarily after September 11th by Navy, Army and Air Force units. Of these, 429 were sold and 917 were destroyed. The 429 coats and trousers, which had a reported cost of $107 each, were sold by Internet auction for about $3 each.

I have in my hand one of the coats that was excessed and being sold on the Internet in Hawaii. This coat is vacuum sealed and appears to be in good condition. We have another suit here from the same lot that is marked "training only." We found that DOD needs all of the chem/bio suits that were being excessed and sold.

Last Wednesday we informed the JSLIST program manager of this situation. He was not aware that the chem/bio suits were being excessed and sold, and agreed to immediately terminate the sale of these suits.

The inventory management practices we identified and observed at Wal-Mart and Sears differ sharply from those at DOD. For example, for both companies, we found standardization of data, little or no manual processing, and systems that provide a complete asset visibility. Unlike DOD, Wal-Mart requires all components and subsidiaries to operate within its system framework and does not allow stovepipe systems development. For both Sears and Wal-Mart, data moved through their automated systems from the supplier to the distribution centers, to the retail stores.

As shown on the poster board, we found that Wal-Mart and Sears had visibility over inventory at the corporate distribution center and retail store levels. In contrast, as previously discussed, DOD did not have visibility at the DOD military service over unit levels. We found that integrated or interfaced systems and standardized data allowed both Sears and Wal-Mart to specifically identify inventory items.

For example, based on our inquiry, Wal-Mart headquarters staff was able to readily identify the number of 6.4 ounce tubes of a brand name toothpaste that were at their Fairfax, Virginia retail store. Other information was also available, such as daily sales volume.

With regard to our second case study, we found that the purchase card process was somewhat automated and provided the flexibility to acquire goods and services on the day that they are

needed. However, we found for certain transactions processed through DFAS Columbus, monthly credit card statements are received by mail or by fax. For these statements, personnel manually reenter each line of the purchase card statement. This manual entry of data is required, because DFAS does not have the ability to accept the data electronically.

As shown on the poster board from the Navy monthly purchase card statement with 228 transactions, as you can see, there was a $17 processing fee per line that is well in excess of several of the items that were purchased on that monthly statement. DFAS charged the Navy over $3,900 to process this monthly credit card bill.

In contrast, both Wal-Mart and Sears make extensive use of electronic data transmission within their internal systems and with all of their suppliers.

In summary, the chem/bio suit and purchase card case studies clearly demonstrate the high cost of the current DOD business processes. In addition, mission performance is also affected, as shown by DOD's lack of visibility over the chem/bio suits. These case studies are small examples of the broader financial and inventory management and systems modernization challenges facing DOD. The automated processes used by Wal-Mart and Sears offer a glimpse at the cost savings and improved mission performance that DOD could achieve through successful reform. Unlike DOD, market forces and a strong system of accountability drive Wal-Mart and Sears to operate as efficiently and effectively as possible.

We believe that for DOD to succeed in its reform efforts, strong leadership from the Secretary will be necessary to develop a system of accountability and incentives and to cut through the deeply embedded cultural resistance to change. The Secretary has recognized the importance of reform and estimated that DOD could save 5 percent of its budget, or about $15 to $18 billion annually, through successful reform efforts.

Mr. Chairman, this concludes my statement. With me are Dave Warren, John Ryan and Darby Smith. We'd be happy to answer any questions.

[The prepared statement of Mr. Kutz follows:]

United States General Accounting Office

GAO

Testimony

Before the Subcommittee on National Security, Veterans Affairs, and International Relations, Committee on Government Reform, House of Representatives

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DOD MANAGEMENT

Examples of Inefficient and Ineffective Business Processes

Statement of Gregory D. Kutz
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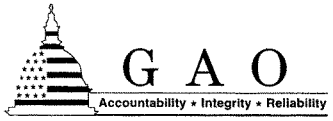


GAO-02-873T

Mr. Chairman and Members of the Subcommittee:

We are pleased to be here today to discuss two case studies that clearly demonstrate the need for the Department of Defense (DOD) to reform its business operations. These two case studies are microcosms of the broad management challenges facing DOD that were highlighted in our June 4, 2002, testimony[1] before this Subcommittee. At that hearing, we provided our views of the underlying or root causes of DOD's long-standing inability to successfully reform its business operations, including a lack of sustained top-level leadership, cultural resistance to change, and military service parochialism. In addition, we identified what we believe are seven key elements necessary for successful reform, including approaching DOD's broad array of management challenges using an integrated, enterprisewide approach.

As discussed in our June 4, 2002, testimony, the failure of past reform efforts has lead to DOD's current business processes and data systems were not designed and implemented in an integrated fashion. These current processes and systems have been in place since the 1960s and 1970s and over time have evolved into an overly complex and error-prone operation including (1) little standardization across DOD components, (2) multiple systems performing the same tasks, (3) the same data stored in multiple systems, (4) manual data entry into multiple systems, and (5) a large number of data translations and interfaces that combine to exacerbate problems with data integrity.

Today, at your request, we will discuss two case studies and the related financial and inventory management and systems modernization[2] challenges facing DOD. These case studies examine in detail the processes and data systems used by DOD to procure, control, and pay for critical items. The two case studies pertain to (1) the Joint Service Lightweight Integrated Suit Technology (JSLIST)[3] chemical and biological protective garments—coat and trousers—procured by contract and (2) computer equipment procured using the government purchase card. You also requested that we evaluate the economy, efficiency, and effectiveness of the processes and compare certain aspects of DOD's processes to those of two large leading-edge retail companies—Sears and Wal-Mart.

Summary

Both of these case studies highlight significant differences between DOD's business operations and those of two benchmark companies. These differences offer stark contrasts in the efficiency and cost of doing business. With regard to our first case study, for the inventory management process related to JSLIST, stovepiped, nonintegrated systems and processes result in DOD, the military services, and the military units not knowing how many items they have and where they

[1]U.S. General Accounting Office, *DOD Financial Management: Important Steps Underway But Reform Will Require a Long-term Commitment*, GAO-02-784T (Washington, D.C.: June 4, 2002).

[2]Financial management, inventory management, and systems modernization are three of the six agency-specific high-risk areas related to DOD. For further details see U.S. General Accounting Office, *Major Management Challenges and Program Risk: Department of Defense*, GAO-01-244, (Washington, D.C.: Jan. 2001).

[3]JSLIST is a universal, lightweight, two-piece garment (coat and trousers) that when combined with footwear, gloves, and protective mask and breathing device, forms the warfighter's protective ensemble. Together, the ensemble is to provide maximum protection to the warfighter against chemical and biological contaminants without negatively impacting the ability to perform mission tasks.

are located. This lack of visibility has resulted in DOD excessing and selling JSLIST while at the same time procuring hundreds of thousands of new garments annually. The lack of system integration[4], meaning the ability to share across business applications, continues to force multiple manual data entry into numerous systems. These manual processes result in errors, add significant administrative cost, and generally exacerbate asset visibility problems. Although the purchase card process was somewhat automated, we identified inefficient duplication of efforts and costly manual entry of data at the Defense Finance and Accounting Service (DFAS)-Columbus which sometimes resulted in processing fees well in excess of the cost of the item purchased.

DOD's business processes for procuring, controlling, and paying for JSLIST rely on manual data transmission and entry into nonintegrated data systems. We identified 128 processing steps performed by 11 DOD components, such as the Defense Logistics Agency (DLA), DFAS, and the military services. Of the 128 steps, 100—or 78 percent—involved manual entry or re-entry of data into one or more of the 13 nonintegrated data systems supporting the JSLIST processes. In addition to the inefficiencies associated with this complex, error-prone process, DOD lacks asset visibility over JSLIST at all levels. According to DOD, by the end of fiscal year 2001, it had procured 1.6 million JSLIST and about 1.2 million of these had been issued to the military services. However, the complex, nonintegrated, error-prone process precludes DOD from being able to quickly and accurately identify the location and condition of these JSLIST.

The DOD Inspector General has reported that the inventory system that DLA uses to control and maintain visibility over JSLIST not yet issued is of questionable accuracy. Further, at the military units that we visited, the methods they used to control and maintain visibility over JSLIST issued to them ranged from automated information systems, to spreadsheet applications, to paper, to dry eraser board, to none. The data maintained also varied. Some units maintained specific data including manufacturer, manufacture date, and production lot number, while other units maintained little or no data.

Lacking an integrated system with standard data, if DOD needed to immediately identify the location and condition of JSLIST, it would have to initiate a labor-intensive, time-consuming data call with no assurance of accurate results. This lack of visibility has also resulted in packaged, unused JSLIST—coat and trousers—being declared excess and sold to the public over the Internet for about $3 each, while at the same time DOD was procuring hundreds of thousands of JSLIST annually at a cost of over $200 per set (coat and trousers).

The business practices we identified at Sears and Wal-Mart, recognized as leading-edge inventory management companies, offer a glimpse of what improvements in the efficiency and effectiveness of DOD's business processes could yield. For example, we found that both companies had automated systems that electronically receive and exchange standard data throughout the entire inventory management process, thereby reducing the need for manual data entry. As a result, for Sears and Wal-Mart, financial and logistical information moved through data systems with automated ordering of inventory from suppliers; receiving and shipping at

[4]An integrated financial system coordinates a number of functions to improve efficiency and control. For example, integrated financial systems are designed to avoid the unnecessary duplication of data entry because transactions are entered only once. Systems can also be interfaced which means they have the ability to share data electronically.

distribution centers; and receiving, selling, and reordering at retail stores. Unlike DOD, with a proliferation of nonintegrated systems using nonstandard data, Sears and Wal-Mart require all components and subsidiaries to operate within a standard systems framework and do not allow individual systems development.

With respect to inventory visibility, we found that the automated systems allowed both Sears and Wal-Mart to quickly identify the location of inventory items at their distribution centers and retail stores. For example, based on our inquiry, Wal-Mart headquarters staff in Bentonville, Arkansas, was able to readily identify for us the number of 6.4 ounce tubes of a specific brand of toothpaste on hand at their Fairfax, Virginia, retail store along with other information such as daily and weekly sales.

Shifting to our second case study, we found that the purchase card process was somewhat automated and provided the flexibility to acquire goods and services on the day that they are needed. However, as we have found in related audit work,[5] purchases of computers with the purchase card were often not recorded in property records. Recording these items in the property records is an important step to ensure accountability and financial control over these assets and, along with periodic inventory, to prevent theft or improper use of government property. Without an automated mechanism to record accountable items acquired with the purchase card in the property records, the individual receiving the computer must manually inform the property management office of the acquisition for it to get properly recorded.

With respect to payment, for certain transactions processed through DFAS-Columbus, monthly credit card statements are mailed or faxed, and DFAS-Columbus personnel manually re-enter each purchase. This manual process occurs because (1) the Navy has chosen not to electronically submit its purchase card statements, (2) the DFAS-Columbus payment system is not capable of accepting electronic purchase card statements from CitiBank, the purchase card contractor, and (3) defense agencies have not yet implemented electronic purchase card processing. According to DFAS-Columbus, defense agencies should have this capability this summer. The charge to DFAS-Columbus customers of processing manually re-entered purchase card statements is over $17 per line rather than nearly $7 per line for electronic transactions. In one example, a Navy activity submitted a monthly purchase card statement with 228 transactions for which DFAS charged over $3,900 to process, with the $17 per line processing fee well in excess of the price of several items purchased. In contrast, both Sears and Wal-Mart make extensive use of electronic data receipt and transmission.

Scope and Methodology

To trace the information flow and document key data systems used to procure, control, and pay for JSLIST, we reviewed and analyzed procedures and system documentation. Further, we discussed business processes with managers and observed processing at key DOD organizations, including the JSLIST Program Office, DLA, DFAS-Columbus, and the Defense Contract

[5]U.S. General Accounting Office, *Purchase Cards: Control Weaknesses Leave Two Navy Units Vulnerable to Fraud and Abuse*, GAO-01-995T, (Washington, D.C.: July 30, 2001) and *Purchase Cards: Continued Control Weaknesses Leave Two Navy Units Vulnerable to Fraud and Abuse*, GAO-02-506T, (Washington, D.C.: Mar 13, 2001).

Management Agency. We discussed and observed JSLIST production with managers at the Southeastern Kentucky Rehabilitation Industries and discussed JSLIST inventory and issue to the warfighter at selected military units. To trace the information flow and identify key data systems related to a computer bought using the government purchase card, we reviewed established procedures and discussed processes with managers of key organizations, including DOD's Purchase Card Program Office, DFAS-Columbus, and two selected military service units.

To compare certain aspects of DOD's JSLIST inventory management and business processes related to a computer bought using the government purchase card, we discussed best business practices used by two leading retailers—Sears and Wal-Mart. We selected Sears and Wal-Mart based on our review of the study *Achieving World-Class Supply Chain Alignment: Benefits, Barriers, and Bridges*, by the Center For Advanced Purchasing Studies, Tempe, Arizona: 2001. We discussed and observed best practices used by these companies to manage their supply chain and compared these practices to the DOD business processes to identify opportunities to improve DOD's business processes. We briefed DOD managers, including officials from DOD's JSLIST Program Office, DLA, and DFAS, on the details of our review, including our objectives, scope, and methodology and our findings and conclusions. DOD officials generally agreed with our findings and conclusions. We relied upon our past work and that of the DOD Inspector General in regard to accuracy and reliability of the information systems DOD uses to support JSLIST processing. Further, we did not audit the financial data provided by DOD or contained in its inventory systems. Details on where we performed our audit work are included in appendix I. We conducted our audit work from July 2001 through June 2002 in accordance with U.S. generally accepted government auditing standards, and we performed our investigative work in accordance with the standards prescribed by the President's Council on Integrity and Efficiency.

Case Study One: Joint Service Lightweight Integrated Suit Technology

We found that DOD's processes for procuring, controlling, and paying for JSLIST rely on manual data transmissions and entry into as many as 13 nonintegrated data systems. Much of the data required to procure and field JSLIST are transmitted using e-mails, faxes, telephones, and hard-copy documents that must be read and manually entered into automated systems. This reliance on manual data results in slow, error-prone business processes.

In addition to these inefficiencies, the use of manual, stovepiped, and nonintegrated processes and systems have limited DOD's ability to know how many JSLIST it has and where they are located. This lack of visibility was due to several factors. First, not all military units maintained the same JSLIST data. For example, some military units tracked key data such as manufacturer, manufacture date, and production lot number, while other units maintained little or no data. Second, military units maintained inventory data in nonstandard, stovepiped systems that did not share data with other DOD systems. The methods used to control and maintain visibility over JSLIST ranged from stand-alone automated systems, to spreadsheet applications, to pen and paper. One military unit we visited did not have any inventory system for tracking JSLIST.

DOD's inability to quickly identify and locate JSLIST has contributed to some military units declaring them excess to their immediate needs, while at the same time DOD had been attempting to expedite the issuance of the JSLIST to military units in response to the events of September 11, 2001.

Discussions with two leading private sector companies identified innovative best practices that offer opportunities for DOD to improve its business processes. Unlike DOD, Sears and Wal-Mart have highly automated inventory management processes and use standard data and systems and electronic data transmission and entry. From the corporate level, these two entities maintain continuous visibility over inventory from their suppliers to the store shelf.

Background

During Operation Desert Shield/Desert Storm, DOD noted that its chemical and biological equipment (1) could cause unacceptable heat stress to the wearer, (2) could limit freedom of movement and impair job performance, (3) was bulky, and (4) was not fully interoperable across the services. Furthermore, most of the existing suits were no longer manufactured and those still in service would expire by 2007, given the 14-year expected life. To address these issues, DOD developed new, lightweight individual protective equipment such as the JSLIST, which DOD began procuring in 1997. An improved, multipurpose overboot is in procurement and new protective gloves are under development to improve manual dexterity and/or reduce heat stress on the wearer. Similarly, since the existing masks may cause some breathing difficulty, DOD is developing a new mask but does not expect to begin procurement until fiscal year 2006.[6]

JSLIST is a universal, lightweight, two-piece garment—coat and trousers—designed to provide maximum protection against chemical and biological contaminants. Figure 1 shows the entire ensemble, which in addition to the coat and trousers includes footwear, gloves, protective mask, and breathing device. Our study did not include these other components.

[6]U.S. General Accounting Office, *Chemical and Biological Defense: Improved Risk Assessment and Inventory Management Are Needed*, GAO-01-667 (Washington, D.C.: Sept. 28, 2001).

Figure 1: The Joint Service Lightweight Integrated Suit Technology (JSLIST) Ensemble

Source: JSLIST Program Office

Together, the ensemble is designed to provide maximum protection to the warfighter against chemical and biological contaminants without negatively affecting the ability to perform mission tasks. The focus of our review was to map the flow of data associated with the procurement, inventory control, and payment for JSLIST.

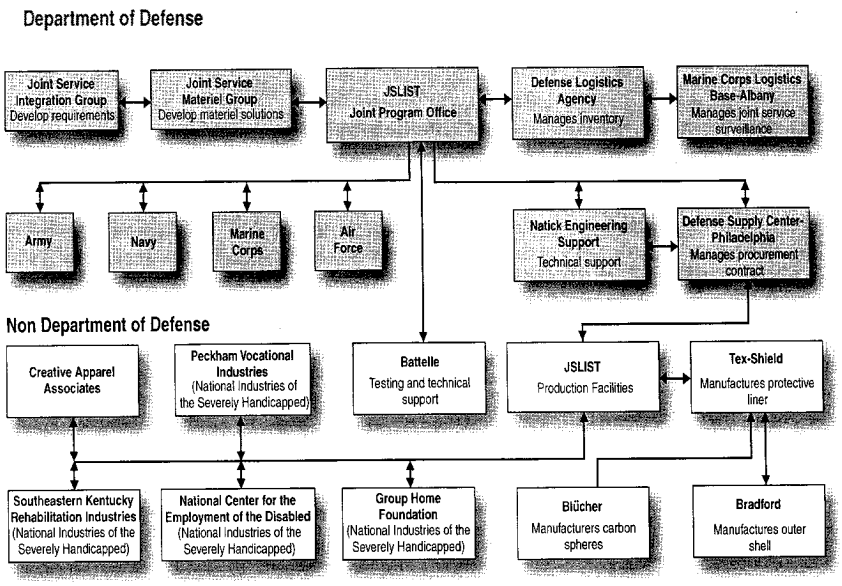
According to DOD, for each JSLIST coat and trousers set they pay approximately $204. DOD began procuring JSLIST in fiscal year 1997 and expects to purchase about 4.4 million garments at a cost of about $1 billion over a 14-year period ending in fiscal year 2011. According to DOD, this amount includes the JSLIST procurement cost and a DLA surcharge for services, such as clarifying requirements, developing contract specifications and negotiating production levels with the contractors, developing and maintaining delivery schedules, and storing JSLIST[7] until issued to the military services. According to the JSLIST Program Office, by the end of fiscal year 2001, DOD had procured approximately 1.6 million JSLIST, and about 1.2 million had been issued to the military services. According to the Joint Service Set-Aside Project office, the JSLIST are expected to last about 14 years. The Joint Service Set-Aside Project office is responsible for testing JSLIST after 5 years in inventory, which represents the manufacturer's

[7]DLA stores JSLIST at its distribution centers in Albany, Georgia; San Joaquin, California; and Yokuska, Japan.

warranty period. Officials indicated that they have started to test JSLIST that were procured in 1997 and to date none have failed.

Figure 2 shows the private and public sector organizations involved in the production of JSLIST and the relationship among the various entities.

Figure 2: Private and Public Sector Organizations Involved in the Production of the JSLIST



Source: JSLIST Program Office

These organizations include 8 private manufacturing companies, 1 private testing and technical support firm, and 11 DOD organizations. Of the 8 private sector companies, 5 actually manufacture the JSLIST garments and the other 3 provide the component parts—the outer shell, carbon spheres, and protective liner. All these organizations play a role in JSLIST production ranging from requirements development to issuance of JSLIST to the warfighter.

At this Subcommittee's June 2000 hearing on individual chemical and biological protective equipment, the DOD Inspector General testified that the DLA had weak inventory controls over

the Battle Dress Overgarment (BDO)—the JSLIST predecessor. DLA had major problems identifying and removing from inventory defective BDO protective suits. As a result, some of the defective suits had been shipped to U.S. forces in high-threat areas. The DOD Inspector General also pointed out that DLA had "materially misstated" the number of protective suits being stored. According to DLA, misplacement of items in the wrong storage areas and incorrect counts when the material was received contributed to the inventory inaccuracy.

Extensive Manual Processes Used to Procure, Control, and Pay for JSLIST

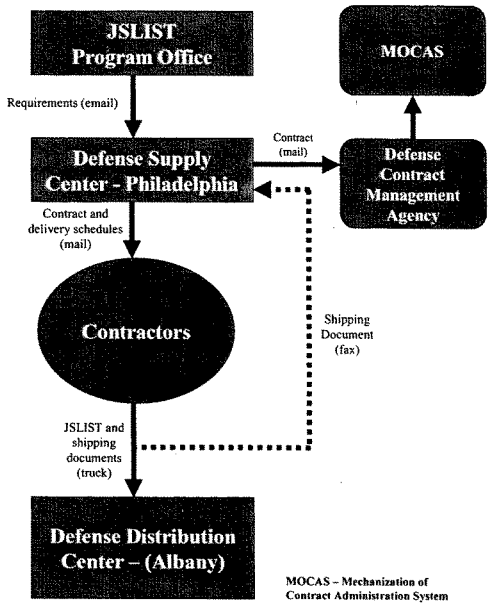
Our analysis of the data flows for the different JSLIST processes documented 128 steps. Of these 100 steps—78 percent—were manual, meaning that much of the data are transmitted using e-mails, faxes, telephones, and paper documents that must be read, interpreted, and entered into the 13 nonintegrated systems. The remaining 28 steps—22 percent—were by automated means. Appendix II provides a brief description of each system and identifies the function performed and the DOD system owner.

With so many manual processes, substantial data entry is required. We also found that even data transmitted electronically are manually verified before being entered into another data system. Such practices are highly inefficient and prone to error. DOD has acknowledged that in today's environment, current processes are slow and susceptible to errors. The following three sections highlight the data flows for the procurement, inventory control, and payment process. They provide a simplified representation of the actual processes and data flows, and the methods used for data transmission.

Procurement

In mapping the data flow for JSLIST, we found the procurement process to be the least automated. Figure 3 demonstrates the extensive use of manual processes between the JSLIST Program Office, the Defense Supply Center-Philadelphia, the contractors, and the Defense Distribution Center. Figure 3 does not include all of the processes that are associated with the procurement process.

Figure 3: Overview of the JSLSIT Procurement Process and the Use of Manual Processes



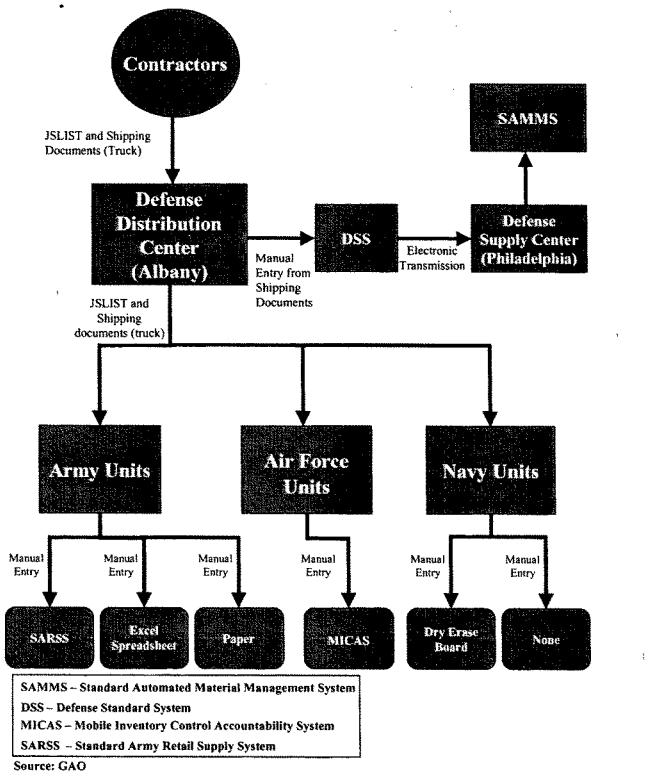
Source: GAO

As shown, most of the data transmissions are manual—e-mail, fax, and regular mail. For example, JSLIST garments requirements data—which show the number and specific sizes that are to be manufactured—are e-mailed from the JSLIST Program Office to DLA's Defense Supply Center, Philadelphia, which is responsible for negotiating the terms of the contract with the five manufacturers. The contractor— via fax—notifies the Defense Supply Center, Philadelphia, that the JSLIST garments have been produced and shipped to the Defense Distribution Center for storage. The contractors also send shipping documents, including the Material Inspection and Receiving Report (DD Form 250), with the JSLIST shipment to the Defense Distribution Center.

Inventory Control

The inventory control process is slightly more automated than the procurement process. This is due to DLA's use of the Distribution Standard System (DSS) and the Standard Automated Material Management System (SAMMS). However, as shown in figure 4, the military service units still use extensive manual data entry in their efforts to control the JSLIST garments that have been distributed to them.

Figure 4: Overview of the Inventory Control Process for the JSLIST



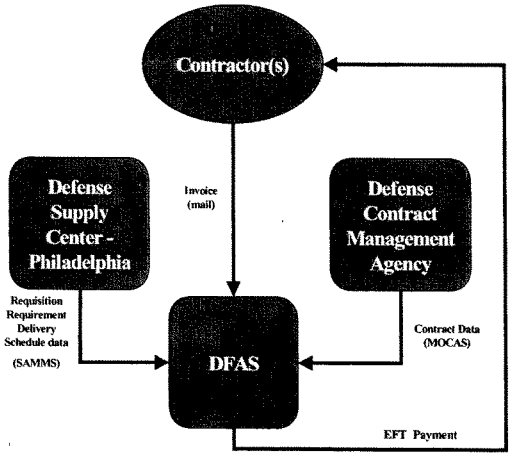
According to DLA personnel, DSS contains data on the number of JSLIST procured, the number in DLA's warehouse facilities, and the number of JSLIST that have been distributed to the military services. The data must be manually entered into DSS from the shipping documents that

are received from the contractors. Once entered into DSS, shipping receipt data are electronically passed from DSS to SAMMS at the Defense Supply Center-Philadelphia. DLA also pointed out, however, that once JSLIST are distributed to the military services, DSS does not maintain any inventory control. At this point, JSLIST data are removed from DSS and DLA loses visibility of JSLIST. As shown in figure 4, military services use various methods to maintain inventory control. Of the three Army units that we visited, one used an automated system—Standard Army Retail Supply Systems (SARSS), one used a spreadsheet application, and one used paper and pen. Of the two Navy units visited, one used a dry eraser board, with handwritten notes and one did not maintain an inventory of JSLIST. Both of the Air Force units visited used the Mobility Inventory Control Accountability System (MICAS) to control their JSLIST inventory. Since MICAS is a stand-alone system that operates independently at each location, data cannot be shared between the various locations, nor does it have the capability to provide data to higher command levels.

Payment Process

The payment process is the most automated. DFAS—the central organization in the payment process—uses more automated processes than any other organization visited. As shown in figure 5, electronic exchange of data was used more often in the payment process than in the procurement and inventory control processes.

Figure 5: Overview of the Payment Process for the JSLIST



EFT – Electronic Funds Transfer
MOCAS – Mechanization of Contract Administration System
SAMMS – Standard Automated Material Management System

Source: GAO

As shown in figure 5, once the invoice is received from the contractor—via the mail—DFAS electronically obtains shipping data from the SAMMS, and contract data from the Mechanization of Contract Administration System (MOCAS). Invoice, contracting, and shipping data are all needed for DFAS to process the payment to the contractor by electronic funds transfer through the Standard Accounting and Budgeting Reporting System (SABRS).

Once the data enters DFAS, the payment process is automated and each DFAS division involved in the payment process has the ability to use the same data. For example, payment data are transmitted to the JSLIST Program Office via the SABRS. However, DFAS still relies on some manual processing. In DFAS' Entitlement Division, individuals manually check to ensure that required invoice data are in the Electronic Document Management system, and then manually enter these data into MOCAS system. This system helps supports the contract administration aspects of the JSLIST program. We have previously reported[8] on long-standing problems in contract pay through MOCAS. For example, for fiscal year 1999, DFAS data showed that

[8]U.S. General Accounting Office, *Canceled DOD Appropriations $615 Million of Illegal or Otherwise Improper Adjustments,* GAO-01-697 (Washington, D.C.: July 26, 2001).

almost $1 of every $3 in contract payment transactions was for adjustments to previously recorded payments—$51 billion of adjustments out of $157 billion in transactions.

We have also reported[9] that the manual entry of data into systems is prone to keypunch errors, errors caused when data entry personnel are required to interpret sometimes illegible documents, and inconsistencies among data in the systems. DOD has acknowledged that the systems used to support its business operations do not provide relevant, reliable, and timely information. As discussed in our June 4 testimony,[10] the department has begun efforts to develop an enterprise architecture that should detail the target or "to be" environment for DOD's business operation systems and show how these systems will interact. Managed properly, an integrated system development effort can clarify and thus help to optimize the interdependencies and interrelationships among an organization's business operations and the underlying data systems supporting these operations.

Lack of Asset Visibility
Affects Mission Readiness

DOD and the military services lack asset visibility and control over JSLIST. There is no DOD-wide system that contains the data needed—number of JSLIST, manufacturer, manufacture date, and production lot number—to locate specific JSLIST garments that are in the possession of the military services. As a result, if the JSLIST garments had to be recalled for any reason, there is no assurance that DOD can readily or accurately locate the 1.2 million JSLIST that have been issued to the military services. In essence, DOD is faced with the same predicament today as it had in June 2000, when hearings by this Subcommittee chronicled DOD's inability to identify the location of the BDOs—the predecessor of JSLIST. BDOs needed to be recalled and removed from the inventory because they were found to be defective, but even after a data call DOD was unable to retrieve all of the BDOs.

Our September 2001 report[11] noted that as of April 2001, DOD had not found about 250,000 of the defective BDO suits. DOD was not certain if the suits had been used, were still in supply, or were sent to disposal. That report also pointed out that DOD could not (1) monitor the status of its protective equipment inventory because the military services and DLA used at least nine different nonintegrated data systems, (2) determine whether all of its older chemical suits would adequately protect service members because some of the inventory systems did not contain essential data needed to determine usability of inventoried chemical suits, and (3) easily identify, track, and locate defective suits because inventory records did not always include contract and lot numbers. These shortcomings are consistent with the long-term problems in DOD's inventory management that we have identified as a high-risk area due to a variety of problems, including ineffective and wasteful management systems and procedures.[12] To improve DOD's control and accountability of chemical and biological equipment, we made

[9]U.S. General Accounting Office, *Financial Management: Seven DOD Initiatives That Affect the Contract Payment Process*, GAO/AIMD-98-40 (Washington, D.C.: Jan. 30, 1998).
[10]GAO-02-784T.
[11]GAO-01-667.
[12]GAO-01-244.

several recommendations, one of which was to implement a fully integrated inventory management system.

Our visits to DLA's Defense Distribution Center, Albany, GA, and selected military service units found that these weaknesses remain today. DOD does not have reliable asset visibility for JSLIST throughout the department. This problem can be attributed to several factors. First, according to the DOD Inspector General in testimony before this Subcommittee in June 2000, DSS—a relatively new and modern system is "chronically inaccurate." The DOD Inspector General pointed out that its physical count of chemical protective suits disclosed that 420,000 suits were not on-hand as recorded in the inventory balance in DSS. Even if DSS were accurate, it only provides visibility and control over JSLIST located in DLA's warehouse facilities. DSS does not contain any data that can be used from a departmentwide perspective to identify the location of the 1.2 million JSLIST garments that have been distributed to the military services.

Second, once JSLIST are issued to the military service units, the lack of standard data and nonintegrated systems hinders asset visibility. Our visits to Army, Navy, and Air Force military units disclosed that all units did not maintain key data such as manufacturer, manufacture date, and production lot number. These data would be essential if JSLIST had to be recalled. Without these data, DOD would have to initiate a worldwide data call, with no assurance of the accuracy of the result. Of the three Army units visited, only one maintained these data, while neither of the two Navy units maintained these key data. Both Air Force units maintained the manufacturer, manufacture date, and production lot number.

In addition, the units we visited used stovepiped, nonintegrated systems to track their JSLIST. As shown in figure 4, the method used varied from an automated system to no tracking of any kind. Of the Army units, one unit used the Standard Army Retail Supply System, another unit used a stand-alone spreadsheet application, and the third unit used paper and pen to control its JSLIST inventories. At the two Navy units visited, one used a marker and dry eraser board and the other Navy unit did not maintain a JSLIST inventory—manual or automated. Both Air Force units used MICAS to control JSLIST. According to Air Force personnel, this is a standard system used to maintain comprehensive control of assets from receipt to disposal. Information must be entered manually into MICAS. Air Force personnel also stated that they are able to identify and locate service personnel that have JSLIST in their possession by using MICAS. The Air Force personnel noted that MICAS was designed for use at the unit level, but the Air Force plans to upgrade the system to provide more visibility over JSLIST to higher command levels.

Personnel at the Army and Navy units were interested in the potential for using MICAS. We provided these personnel with a point of contact in the MICAS program office. As of May 2002, one Army unit decided to try MICAS in a stand-alone mode to test its suitability and one Navy unit decided not to consider the use of MICAS it only used JSLIST for training and therefore it determined that a system was not needed. The other Army and Navy units are considering the use of MICAS.

Because of DOD's weaknesses locating and recalling defective BDOs, we inquired of the Defense Threat Reduction Agency—responsible for funding the JSLIST program—if they had the means to locate all JSLIST departmentwide if a similar situation were to occur. A program

official stated that they could account for the JSLIST up to the point they are distributed to the military services. As noted previously, once suits are distributed, accountability becomes more difficult because each service has a separate logistics, supply, and maintenance management system for tracking items. Further, the official noted that these systems are not connected.

The program official also stated that the requirement to track location, manufacturer, manufacture date, and production lot number of each JSLIST would be the responsibility of DLA's Business System Modernization (BSM) program. BSM is an 8-year (fiscal year 2000 through fiscal year 2007), four-phased program that is intended to modernize DLA's business functions such as materiel management, distribution, and cataloguing by replacing obsolete, nonintegrated data systems with a web/network-based logistics system using commercial, off-the-shelf products. The project is estimated to cost nearly $900 million. As discussed in our June 2001 report,[13] BSM is intended to modernize DLA's current materiel management business function from being a mere provider and manager of physical inventory to becoming primarily a manager of supply chains—linking customers with appropriate suppliers and tracking physical and financial assets.

However, we believe reliance on BSM to provide adequate visibility over JSLIST is ill advised for several reasons. First, as pointed out in our June 2001 report, BSM was being implemented without the benefit of a DLA architecture or a DOD-wide logistics management architecture. Further, we noted that DLA did not have the management controls in place to develop, implement, and maintain an architecture. As discussed in our June 4 testimony,[14] without an architecture to guide and constrain information technology investments, DOD runs the serious risk that its system efforts will perpetuate the existing system environment that suffers from system duplication, limited interoperability, and unnecessarily costly operation and maintenance.

Second, even if DLA successfully implements the inventory control phase of BSM by March 2005, the majority of JSLIST may have already been procured and issued to the military services without asset visibility, including a record of critical tracking data, such as manufacturer, manufacture date, and production lot number. As of the end of fiscal year 2001, about 1.6 million JSLIST had been purchased and about 1.2 million garments had already been issued to the military services. At the expected procurement rate of 330,000 to 350,000 JSLIST annually, DOD will have purchased about 3 million of the 4.4 million of the JSLIST by fiscal year 2005.

Lack of Visibility Contributed to Excessing and Selling JSLIST

DOD's lack of asset visibility over the JSLIST has resulted in poor inventory control. While DOD expedited the issue of the JSLIST garments to the military services in response to the events of September 11, 2001, Army, Navy, and Air Force units have sent JSLIST to the Defense Reutilization Marketing Office (DRMO) as being excess to their immediate needs. From January 2001 through June 2002, 1,934 JSLIST coats and trousers valued at about $207,000[15]

[13]U.S. General Accounting Office, *DLA Should Strengthen Business System Modernization Architecture and Investment Activities*, GAO-01-631 (Washington, D.C.: June 29, 2001).
[14]GAO-02-784T
[15]Reported acquisition price.

were turned into DRMO. Of the 1,934 coats and trousers declared excess, 1,813 were turned-in after September 11, 2001. Table 1 shows the disposition of the 1,934 coats and trousers.

Table 1: Disposition of JSLIST Coats and Trousers Declared Excess

Number of coats and trousers excessed	Acquisition price	Disposition
429	$45,745	Public auction
917	$96,206	Scrapped[a]
275	$30,141	Reutilized[b]
313	$34,891	Pending[c]

a Not usable property

b Reissued to a another DOD component, federal agency or program

c Items still in the property screening phase and eligible for reutilization

As shown in the table 1, 275 of the coats and trousers were reissued to other government entities. One of the purposes of DRMO is to reallocate inventory that is excess to one organization's needs to an organization that has insufficient inventory to meets its needs. We do not have any information regarding the rationale as to why 917 coats and trousers were scrapped and 313 are considered pending, which means they are eligible for reutilization.

According to DLA, the 429 coats and trousers that were sent to a DOD contractor, Government Liquidation,[16] and reportedly sold, at internet auction for approximately $1,100—or less than $3 each. As of June 18, 2002, none of the JSLIST reportedly sold by Government Liquidation had been released and remained at the company's warehouse in Kapolei, Hawaii.

We met with personnel at Hickam Air Force Base, Hawaii, and the Navy Explosives Ordnance Disposal Unit, Barbers Point, Hawaii, to determine why the JSLIST were excessed and sent to DRMO.

- Officials from the Air Force unit stated that JSLIST was sent to DRMO because (1) they did not belong to their unit and had been in their warehouse for at least 3 years, (2) the boxes containing JSLIST were marked "training only," and (3) although still in vacuum-sealed packages, they thought JSLIST had exceeded their expiration date. They also indicated that prior to turning JSLIST in to DRMO, they checked with the Base Supply Office and were informed that no one else on the base needed JSLIST.

[16]Government Liquidation, LLC (GL) is under contract with the Department of Defense for the sale of surplus property. GL operates an online sales channel that allows surplus buyers to purchase available assets over the Web in a "convenient and open environment." GL manages over 2 million square feet of warehouse space and maintains offices on over 150 military bases throughout the continental U.S., Alaska, Hawaii, Puerto Rico, and Guam.

- The Navy unit stated that JSLIST were sent to DRMO because they had more than the 32 required to meet their immediate needs. Prior to turning JSLIST in to DRMO, the Navy unit did not consult with the Supply Office to determine if they could be used elsewhere. They indicated that they thought this was a DRMO responsibility. Believing that the garments were in excellent condition, they coded them "E" upon turning them in to DRMO. However, an item code of "E" signifies that the goods are damaged.

Our physical inspection of the JSLIST garments in the Government Liquidators warehouse found that all but 30 were marked "training only." These 30 were turned in by the Navy unit and appeared to be in good condition. The "training only" JSLIST should not be used in a combat environment because they are considered to be defective for that purpose. However, since they were still in vacuum-sealed packages, they appeared suitable for training purposes. When JSLIST are issued to the warfighter, they generally receive a number of sets—coat and trousers—based upon their assignment. For example, at one of the Air Force units we visited, each member is to have five JSLIST sets—four for operations and one for training. Without a "training only" JSLIST, one that would have otherwise been available for operations must be used for training.

On June 19, 2002, we told the JSLIST Program Manager about this situation. He stated that he was not aware that JSLIST garments were being excessed and sold and acknowledged that DOD does not have visibility over the JSLIST garments. He also stated that military service units were "clamoring" for JSLIST garments for training purposes. Further, he stated that none of these garments should have been turned in to DRMO. We suggested that he take action to terminate the sale of these garments. He indicated that he would initiate immediate action to do so.

Best Business Practices Offer Opportunities
for DOD to Improve Efficiency and
Effectiveness of its Business Operations

Private sector companies, driven by today's globally competitive business environment, have developed innovative best business practices to cut costs and meet customer needs by streamlining their logistics operations. Best business practices refer to the processes, practices, and systems identified in public and private organizations that performed exceptionally well and are widely recognized as improving an organization's performance and efficiency in specific areas. Some of the most successful improvement efforts include a combination of practices that are focused on improving the entire logistics pipeline—an approach known as supply chain management. DOD has acknowledged that best business practices of private industry offer opportunities for making significant improvements to its business operations. As evidenced by the information presented today, implementation of fundamental private sector supply chain management practices by DOD would substantially improve it efficiency and effectiveness.

Our discussions with two leading-edge retail companies—Sears and Wal-Mart—identified business practices that are vastly different than those employed by DOD. Unlike DOD, which has a proliferation of nonintegrated systems, nonstandard data, extensive use of manual processes, and limited visibility over inventory, Sears and Wal-Mart are at the other end of the

spectrum. Sears and Wal-Mart are highly automated, use standard data, and make extensive use of electronic data interchange (EDI).[17] Further, each entity is able to maintain visibility of its inventory throughout the various levels of its organization.

Sears, a leading retailer of apparel, home and automotive products, and services, had reported annual revenue of over $41 billion and net income of approximately $735 million for its fiscal year 2001. Sears operates 867 mall-based retail stores, most with co-located Sears Auto Centers, and an additional 1,318 specialty stores including hardware, outlet, tire and battery stores as well as independently owned stores, primarily in smaller and rural markets. Wal-Mart Stores, Inc., is the world's largest retailer with reported annual net revenue of over $193 billion and net income of almost $6.3 billion for its fiscal year 2001. The company operates 4,189 retail stores in all 50 states and 9 foreign countries. Of these stores, 2,348 are regular stores, 1,294 are supercenters, 528 are Sam's Clubs, and 19 are neighborhood markets.

Wal-Mart and Sears Are Highly Automated

As previously discussed, the processes DOD uses to procure, control, and pay for the JSLIST garments are characterized by numerous manual interventions with support from as many as 13 nonintegrated automated information systems. With 78 percent of the data used to support the JSLIST program involving some form of manual entry, DOD's logistics processes are slow and susceptible to error. As a result, DOD's business processes do not provide relevant, reliable, and timely financial and logistical information. In contrast, Sears and Wal-Mart have systems that provide relevant, reliable, and timely information.

As noted in our June 4 testimony[18] before this Subcommittee, systems have proliferated within DOD. At the time of the hearing, DOD acknowledged that it used at least 1,127 systems in the processing of financial information. For the most part, these systems are not integrated with each other. In the past, DOD's system development efforts have been stovepiped within the department's organizational entities, with system development money spread across DOD and no central control. In addition, standard data were not always used across organization boundaries. These limitations preclude DOD and the Congress from receiving the relevant information that is needed in the decision-making process.

This is clearly demonstrated by the use of 13 nonintegrated systems associated with JSLIST. In our discussions with Wal-Mart officials, they noted that Wal-Mart does not permit its subsidiaries or components to develop their own system solutions. System funding and development is viewed from a corporate perspective. Therefore, stovepiped efforts that exist in DOD would not occur within Wal-Mart. Wal-Mart also noted that when an acquisition is made, the new entity is required to convert to the Wal-Mart system—this brings about the standardization of data. Standardization of data and integration of systems is important because it aids in financial accounting and inventory management, including asset visibility.

[17]Electronic data interchange (EDI) is the automated exchange of predefined and standardized business data among information systems of two or more organizations.
[18]GAO-02-784T.

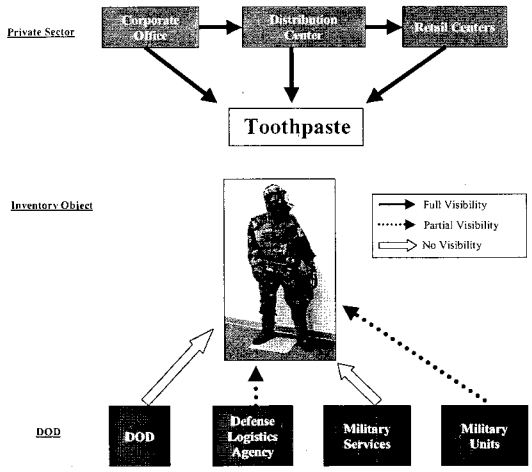
In dealing with suppliers, both Sears and Wal-Mart make extensive use of EDI—which means that data are received and transmitted to and from suppliers electronically. In essence, using EDI virtually eliminates the need for human intervention and thereby helps to reduce the risks of errors being made. Sears and Wal-Mart representatives stated that the more manual intervention in the process, the less likely the information will be relevant, reliable, and timely. Sears' personnel pointed out that over 99 percent of vendors' purchase orders are processed using EDI. According to Sears' representatives, if a supplier does not have EDI capability, they are required to contract with a third party to submit the data to Sears electronically. Similar to Sears, Wal-Mart also makes extensive use of EDI. According to Wal-Mart representatives, about 85 percent of their suppliers use EDI.

Visibility Over Inventory

As previously discussed, DOD cannot readily determine the location of the 1.2 million JSLIST that have been issued to the military services because of nonstandard systems and the lack of standard data across DOD—manufacturer, manufacture date, and production lot number—that would be needed to quickly locate and remove JSLIST from inventory, if recalled. These data should also be maintained to locate the JSLIST and, if necessary move them where needed in the event of a chemical or biological attack. Unlike DOD, Sears and Wal-Mart have integrated systems with standard data across the organizations and as a result have visibility over inventory regardless of location.

For example, at our request, Wal-Mart headquarters staff in Bentonville, Arkansas immediately identified for us the number of 6.4 ounces tubes of a brand-name toothpaste on the shelf at one of their retail stores in Fairfax, Virginia. In addition to identifying 25 tubes of this toothpaste at Fairfax, Virginia, at approximately 1:15 PM, on June 12, 2002, Wal-Mart's system showed daily and weekly product sales and the date of the last shipment and the quantity received. Figure 6 compares Wal-Mart's and DOD's visibility over their respective inventories.

Figure 6: DOD and Wal-Mart Visibility Over Inventory



Source: GAO

According to Wal-Mart representatives, the level of visibility they have over inventory items as shown in figure 6, is critical to quickly remove from the shelf any recalled items. Wal-Mart views the efficient and effective removal of recalled items essential to maintaining credibility with its customers.

Wal-Mart also demonstrated control and visibility over its inventory at the Bentonville, Arkansas Distribution Center. The information in the system showed the specific location and number of a certain brand of 27-inch televisions in the warehouse. We selected 4 of the 202 televisions listed and verified that all 4 were at the specific location indicated in the system.

In addition to using technology to streamline their inventory processes, Sears and Wal-Mart personnel identified several other keys to their success. For example, they stated there needs to be an understanding throughout the organization of what it is trying to achieve. Clearly, all must understand the goals and objectives and it is imperative that all parties work in a cooperative manner. At DOD, as discussed in our June 4 testimony,[19] this has not always been the case. Cultural resistance to change and military service parochialism have played a significant role in impeding past attempts to implement broad-based management reforms at DOD. If the barriers to change are not removed, DOD will continue to be faced with the business-as-usual mentality and its current endeavors to bring about substantive change to the department's current

[19]GAO-02-784T.

flawed business operations will be unsuccessful. If this occurs, as it has in the past, billions of dollars will have been spent without any marked improvement in departmental operations.

Wal-Mart officials also noted that another key element in their success has been the use of individual performance metrics and incentives throughout the organization. Whether it is the manager of a given store or someone working in the warehouse, performance metrics have been established and each person is evaluated against those metrics on a routine basis. If the person's performance exceeds the metrics, he or she is rewarded. For example, hourly workers can receive wage increases for exceeding corporate productivity and inventory accuracy goals. Store managers have metrics such as store profitability and inventory shrinkage and receive bonuses for achieving the metrics. For DOD we previously identified[20] the lack of incentives as one of the major underlying causes for the failure of past reform efforts within the department.

Case Study Two: Government Purchase Cards

Using computers acquired by government purchase cards as a case study, we found that inefficient billing procedures at DFAS-Columbus have increased the costs being incurred by some DOD customers for the payment of monthly purchase card statements. For certain transactions processed through DFAS-Columbus, monthly credit card statements are mailed or faxed and each purchase is manually re-entered because (1) the Navy has chosen not to electronically submit its purchase card statements, (2) the payment system is not capable of accepting electronic purchase card statements from CitiBank, the purchase card contractor, and (3) defense agencies have not implemented electronic purchase card processing. DFAS-Columbus charges customers over $17 per line if the data are manually entered and about $7 per line if the data are transmitted electronically. According to the DFAS-Columbus Commercial Pay Services Business Manager, across all DFAS Centers[21] purchase card statements are processed electronically for about 90 percent of the Air Force's statements, about 80 percent of the Army's statements, and about 50 percent of the Navy's statements.

Background

The purchase card is a governmentwide commercial credit card issued under a government contract to federal agency employees to more efficiently purchase needed goods and services directly from vendors. The purchase card can be used for both micropurchases and payment of other purchases. The Federal Acquisition Regulation, Part 13, "Simplified Acquisition Procedures," establishes criteria for using purchase cards to place orders and make payments. In addition, the Department of the Treasury, DOD and the military services have issued regulations, policy, and guidelines governing the use of the purchase card.

Prior to DOD's implementation of the purchase card program in 1994, buying goods and services was a labor- and paper-intensive process—requisitions were prepared and sent to procurement offices. The procurement offices issued purchase orders, goods and services were delivered, receiving reports were prepared, and payments were then made. The purchase card

[20]GAO-02-784T.
[21]DFAS Centers are located in Columbus, OH; Cleveland, OH; Denver, CO; Indianapolis, IN; and Kansas City, MO.

program was designed to simplify the purchase process by eliminating the need to process purchase requests through procurement offices and avoiding the administrative and documentation requirements of the traditional contracting processes. In mapping the flow of data for the use of the purchase card to procure, control, and pay for a computer item, we identified 19 systems. Appendix III provides a brief description of each system identified, the function performed by the system, and the system owner.

When scanning the purchase card to obtain authorization through the bank network, merchants are to verify the validity of the transactions using a point of sale scanning device. This device can perform up to 50 authorization checks such as verifying the expiration date and account number, ensuring the card has not been reported lost or stolen, and determining that the purchase amount is within the prescribed dollar limits. In fiscal year 2001, DOD reported that it used the purchase card in procuring goods and services valued at over $6.1 billion.

Although we support a well-controlled purchase card program to streamline the government's acquisition process, significant breakdowns in internal controls have contributed to fraudulent, improper, and abusive purchases and theft and misuse of government property. Our March 13, 2002,[22] testimony highlighted the vulnerability of two Navy units to fraudulent, improper, and abusive use of government purchase cards. Currently, we have additional efforts ongoing to review internal controls over purchase card processes used by selected Army, Air Force, and Navy units.

Inefficient Billing Process Increases Costs

At DFAS-Columbus, we observed that much of the purchase card payment process is manual. Certified monthly purchase card statements are manually received from Navy working capital fund activities and defense agencies. Upon receipt of the monthly statements, DFAS-Columbus accounting technicians manually enter line-by-line transaction data into the Computerized Accounts Payable System (CAPS) for payment. The data entered include information such as document number, year, activity and funding code, cost code, and dollar amount for each individual transaction. The manual entry of the data is the result of CAPS not being capable of accepting purchase card statements electronically from CitiBank—the government contractor providing purchase card services to the Navy. Further, DFAS-Columbus personnel informed us that even if CAPS had the capability, Navy working capital fund purchase card transactions would have to be entered manually because the Navy has decided not to electronically submit purchase card statements.

According to DFAS-Columbus officials, DFAS charges $17.13 for each line on the monthly statement that must be manually entered into the payment system. However, the processing fee is reduced to $6.96 per document line, if the monthly statement is electronically processed. Since DFAS is a working capital fund activity, the fee charged should represent the actual cost being incurred in providing the service. We did not audit these fees to determine if they represented actual costs. As noted previously, in our discussions with Sears and Wal-Mart, we were informed that the use of EDI is critical. For example, at Sears, over 99 percent of the

[22]GAO-02-506T.

purchase orders are transmitted via EDI, which greatly reduces the amount of manual entry that is needed and also reduces the risk that errors will be made in the re-entry of data.

The following examples show the cost of manual entry of purchase card transactions.

- On February 13, 2002, DFAS-Columbus received a certified purchase card monthly statement detailing 271 purchases totaling nearly $24 million from the Defense Commissary Agency, Fort Lee, Virginia. At $17.13 per document line, the DFAS fee for manually processing this invoice was over $4,600. If the Defense Commissary Agency could have submitted the invoice electronically, the DFAS fee would have been about $1,890, or less than half the charge of manual processing.

- On January 29, 2002, DFAS-Columbus received a certified purchase card monthly statement detailing 228 lines on the monthly statement for purchases costing nearly $957,000 from the Navy Fleet Material Support Office in Mechanicsburg, Pennsylvania. Since the 228 lines had to be manually entered into CAPS, the Navy incurred a processing fee of $3,900. However, if the monthly statement had been electronically processed, the Navy would have paid DFAS approximately $1,590.

As shown in table 2, we found instances in which the amount of the purchase was less than the amount charged for processing the one line from the monthly statement.

Table 2: Selected Line Items From a Purchase Card Monthly Statement and Related DFAS Processing Fee

Vendor	Amount of purchase	Processing fee
Staples	$4.37	$17.13
Culligan Water Conditioning	$5.50	$17.13
Office Depot	$8.59	$17.13

Source: Certified purchase card monthly statement dated January 21, 2002, from the Fleet Industrial Supply Center, Norfolk, VA, and DFAS-Columbus.

DFAS-Columbus officials informed us that purchase card statements from Navy working capital fund activities that are paid by DFAS-Columbus are manually processed for two reasons. First, the Navy has chosen not to electronically send purchase card statement paid from Navy working capital fund activities. Second, DFAS-Columbus has not yet made the necessary enhancements to the payment system to receive electronic invoices from the Citidirect system—the system used by the contractor providing the Navy purchase cards. Third, defense agencies have not implemented electronic purchase card processing. According to DFAS-Columbus personnel, monthly statements they receive from defense agencies, including the Defense Contract Management Agency, Defense Commissary Agency, and the Defense Information Systems Agency are to be received electronically beginning this summer.

Further, our November 2001 report[23] discussed concerns we had with the failure to record accountable items in the property records. Accountable property includes easily pilferable or sensitive items such as computers and related equipment, digital cameras, and cell phones. Our report pointed out that at two Navy activities we identified instances where computer monitors and laptop computers were not recorded in their property records and could not be found. Recording these items in the property records is an important step to ensure accountability and financial control over these assets. In addition, our also report expressed concern about the use of the government purchase card to procure computers that could be more economically and efficiently procured through bulk purchases. We made recommendations to the Commander of the Naval Supply Systems Command aimed at correcting both of these problems.

Conclusion

The JSLIST and purchase card case studies clearly demonstrate that DOD's current business operations are inefficient and ineffective. Specifically, these case studies are real-time examples of the high cost of nonintegrated systems that require substantial manual intervention in nearly every step of the process. In addition, mission performance is also affected by these processes as shown by DOD's lack of visibility over the JSLIST. These case studies are small examples of the broader financial and inventory management and systems modernization challenges facing DOD that were highlighted in our June 2, 2002 testimony[24] before this Subcommittee.

The integrated, automated processes used by Wal-Mart and Sears offer a glimpse of the cost savings and improved mission performance that DOD could achieve with successful reform. Unlike DOD, market forces and a strong system of accountability drive Sears and Wal-Mart to operate as efficiently and effectively as possible. As we have previously stated, for DOD to succeed in its reform efforts, strong leadership from the Secretary will be necessary to develop a system of accountability and incentives and to cut through the deeply embedded cultural resistance to change and service parochialism. In addition, continued congressional oversight such as the hearing today will be critical to successfully reforming DOD's business operations. The Secretary has recognized the importance of reform and estimated that DOD could save 5 percent of its budget—or about $15 billion to $18 billion annually—by successfully transforming DOD's business processes.

Mr. Chairman, this concludes our statement. We would be pleased to answer any questions you or other members of the Subcommittee may have at this time.

Contacts and Acknowledgments

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[23]U.S. General Accounting Office, *Purchase Card: Control Weaknesses Leave Two Navy Units Vulnerable to Fraud and Waste*, GAO-02-32 (Washington, D.C.: Nov. 2001).
[24]GAO-02-784T

Locations Visited

In mapping the information flow for the procurement, inventory control, and payment of the Joint Service Lightweight Integrated Technology Suit, we visited the following locations.

- JSLIST Program Office, Quantico, Virginia.
- Defense Supply Center, Philadelphia, Pennsylvania.
- Defense Finance and Accounting Service, Columbus, Ohio.
- Defense Contract Management Agency, Cincinnati, Ohio.
- Defense Distribution Center, Albany, Georgia.
- Joint Set-Aside Project, Marine Corps Logistics Base, Albany, Georgia.
- Air Force's 919th Special Operations Wing, Eglin Air Force Base, Florida.
- Air Force's 16th Special Operations Wing/Logistics, Hurlburt Field, Florida.
- Air Force's Chemical Training Unit, Hickam Air Force Base, Hawaii.
- Army's 101st Airborne Division, Fort Campbell, Kentucky.
- Army's 5th Special Operations Forces, Fort Campbell, Kentucky.
- Army's 160th Special Operations Aviation Regiment, Fort Campbell, Kentucky.
- Navy's Disaster Preparedness, Naval Air Station, Pensacola, Florida.
- Navy's Explosive Ordnance Disposal Unit, Eglin Air Force Base, Florida.
- Navy's Explosive Ordnance Disposal Unit, Barbers Point, Hawaii.

In mapping the information flow for the procurement, inventory control, and payment of a computer item using a government purchase card, we visited the following locations.

- DOD Purchase Card Program Office, Falls Church, Virginia.
- Defense Finance and Accounting Service, Columbus, Ohio.
- Air Force Materiel Command, Wright-Patterson Air Force Base, Ohio.
- Army Soldier Biological and Chemical Command, Natick, Massachusetts.

In order to compare DOD business processes with those of leaders in the retail industry we visited:

- Sears, Roebuck, and Company, Hoffman Estates, Illinois.
- Wal-Mart Incorporated, Bentonville, Arkansas.

Key Data Systems Used to Procure, Control, and Pay for JSLIST Protective Garments

This section includes general information describing each of the 13 information systems used to support the procurement, inventory control, and payment processes for the JSLIST protective chemical/biological equipment purchased through contracts.

System owner	System name	Process supported	System description
DLA	Distribution Standard System (DSS)	Inventory control	Supports management of all business processes of the department's warehouse operations, including the processing of material requisition orders, reporting shipping information to customers, and providing visibility of asset quantity, condition, and location.
DLA	Standard Automated Materiel Management System (SAMMS)	Procurement, Inventory control and Payment	Supports wholesale consumable item inventory management processes at defense supply centers, including processing requisitions, forecasting requirements, generating purchase requests, and maintaining stock levels, technical data, item identification, and asset visibility.
DFAS	Electronic Document Access (EDA)	Procurement and Payment	Stores documents such as contracts, contract modifications, government bills of lading, and payment vouchers as electronic images and provides personnel from multiple DOD communities access to these documents.
DFAS	Electronic Document Management (EDM)	Procurement and Payment	Converts and stores paper documents such as contracts, invoices, and receiving reports as electronic images providing document imaging, electronic folders, and workflow processing to DFAS personnel at a single location.
DFAS	Program Budget Accounting System – Funds Distribution (PBAS-FD)	Payment	Records and controls obligation and expenditure authority for all organizational levels except the allotment holder allowing DOD financial managers to electronically receive and issue funds for the Office of the Secretary of Defense, Army, and Navy.
DFAS	Standard Accounting, Budgeting, and Reporting System (SABRS)	Payment	Standardizes all Marine Corps transactions and provides a transaction driven general ledger in compliance with the U.S. Standard General Ledger Charts of Accounts.
DFAS and DCMA	Mechanization of Contract Administration Services (MOCAS)	Procurement and Payment	Supports the administration and payment of supply and service contracts by contract administration offices, payment offices, procurement offices, funding stations, and consignees.
Air Force	Mobility Inventory Control Accountability System (MICAS)	Inventory control	Provides comprehensive asset control and shelf life management, including receiving, accounting, controlling, tracking, issuing, deploying, and reporting of chemical and biological equipment.
Army	Standard Army Retail Supply System (SARSS-O)	Inventory control	Supports retail supply operations and maintains the accountable record of material received, stored and issued.
Army	Standard Property Book System – Redesign (SPBS-R)	Inventory control	Automates overall property accountability and asset visibility functions, including the creating of master hand receipts and the passing of asset data on item shortages and overages to other Army systems.

Navy	Shipboard Non-Tactical Automated Data Processing System (SNAP)	Inventory control	Provides numerous applications for shipboard use, including processing of material requirements, requisitions, and receipts; tracking inventory stock location, balances, demand and usage; providing individual custody records; and reconciling requirements, requisition, inventory, and financial data.
Navy	Standard Automated Logistics Tool Set (SALTS)	Inventory control	Provides means to move logistics and administrative data from a single point of entry to databases and data services world-wide, including DLA's SAMMS, Army's Total Asset Visibility system, and Air Force's Air Force Logistics Information File.
Marine Corps	Defense Equipment Management Program	Inventory control	Maintains total asset visibility over chemical and biological protection equipment held for future testing and tracking results using a spreadsheet application.

Key Data Systems Used to Procure, Account, Control, and Pay for Computer Items Using the Purchase Card

This section includes general information describing each of the 19 information systems used to support the procurement, inventory control, and payment processes for computer equipment purchased using the government purchase card.

System owner	System name	Process supported	System description
DFAS	Central Procurement Accounting System (CPAS)	Procurement and Payment	Provides DFAS and Air Force financial service offices with on-line access to current status information of procurement programs, allotments, initiations, commitments, obligations, and disbursements for central procurement appropriations.
DFAS	Computerized Accounts Payable System (CAPS)	Payment	Provides standard installation center level vendor pay system using a personal computer-based application with interfaces with DOD standard procurement, disbursing and accounting systems.
DFAS	Defense Business Management System (DBMS)	Procurement	Supports the major accounting functions of general ledger accounting, budgetary accounting and funds control, job order and cost accounting, accounts receivable and payable, and accounting and managerial reporting for DFAS, DLA depot and supply centers, Defense Contract Audit Agencies, and the Defense Commissary Agencies.
DFAS	Defense Industrial Financial Management System (DIFMS)	Procurement	Provides about 17 Navy, Marine Corps, and Air Force field-level and headquarters-level activities with transaction-driven funds control, accounting for budget execution, and management information, including cash, labor, other cost, material, cost summary, job order and customer order, billing, general ledger accounts, fixed asset accounting, and cost competition data.
DFAS	Electronic Document Management (EDM)	Payment	Converts and stores paper documents such as contracts, invoices, and receiving reports as electronic images providing document imaging, electronic folders, and workflow processing to DFAS personnel at a single location.
DFAS	Vendor Pay Integrated Accounts Payable System (IAPS)	Payment	Provides rapid and timely vendor payments to Air Force vendors by processing commitment transactions electronically to the GAFS; compares invoice, receiving report and contract data to create a payment vouchers; and concurrently passes electronic funds transfer data to both disbursing and accounting systems.
DFAS	Program Budget Accounting System – Funds Distribution (PBAS-FD)	Procurement and Payment	Records and controls obligation and expenditure authority for all organizational levels except the allotment holder allowing DOD financial managers to electronically receive and issue funds for the Office of the Secretary of Defense, Army, and Navy.
DFAS	Standard Accounting, Budgeting, and Reporting System (SABRS)	Payment	Standardizes all Marine Corps transactions and provides a transaction driven general ledger in compliance with the U.S. Standard General Ledger Charts of Accounts.

DFAS	Standard Finance System Redesign – Subsystem 1 (SRD-1)	Payment	Incorporates military pay, travel, accounts payable, accounting, and disbursing functions into an on-line, interactive menu-driven system for DFAS to produce cash payments, vouchers, and reports.
Navy	Standard Accounting and Reporting System (STARS)	Payment	Consolidates all Department of Navy general fund accounting, contractor and vendor commercial entitlements, transportation payments, and travel payments for the Navy, the Marine Corps, and the Army; and the Navy departmental reporting and funds distribution.
DLA	Defense Property Accountability System (DPAS)	Inventory control	Provides a transaction-driven subsidiary ledger to the general ledger designed to achieve physical and financial control over real and personal property.
Air Force	Automated Business Services System (ABSS)	Procurement	Enables Air Force officials to electronically request assets or services, coordinate approval officials' actions, send electronic documents world-wide, and provide data interface to all standard Air Force accounting and contracting systems.
Air Force	General Accounting and Finance System (GAFS)	Procurement	Provides Air Force a standard accounting system for appropriated funds accommodating the standard appropriation accounting records, such as funding authority, commitments, obligations, and balances of available funds.
Air Force	Information Processing Management System (IPMS)	Inventory control	Provides inventory accountability, configuration management, and life cycle management for Air Force information technology assets, including hardware and software.
Army	Purchase Card Management System (PCMS)	Procurement	Provides Army Materiel Command and Army-Natick users a personal computer web-based system to log and track purchase card requests, obtain required approvals, create timely commitments and obligations, and track and record property and equipment.
Army	Standard Operations and Maintenance, Army Research and Development System (SOMARDS)	Payment	Provides Army a standard accounting and reporting system for reimbursable customer and direct mission funds control data; reporting for labor, reimbursable billings, advances, and general operation expenses; general ledger reporting; and month-end and year-end close and purge processes.
Army	Standard Property Book System – Redesign (SPBS-R)	Inventory control	Automates overall property accountability and asset visibility functions, including the creating of master hand receipts and the passing of asset data on item shortages and overages to other Army systems.
CitiBank	CitiDirect	Payment	Delivers to the Navy and Marine Corp purchase cardholders and approval officials' a web-based reporting and communication tool to log purchases, review and adjust card transactions, and certify account and billing statements.
U.S. Bank	Customer Automation and Reporting Environment (CARE) system	Payment	Delivers to Air Force and Army purchase cardholders' and approval officials' a web-based reporting and communication tool to log card purchases, review and adjust card transactions, and certify account and billing statements.

(192031)

Mr. SHAYS. I'm going to call on Mr. Gilman, but before I do, I told Mr. Kucinich I have one question that is just very—of real interest to the entire committee. Basically because of our investigation and the work you all are doing, we're able to stop the public sale of the JSLIST suits. Do you know who was trying to buy them?

Mr. RYAN. Yes, we do.

Mr. SHAYS. Put your mic on, please.

Mr. RYAN. Yes, we do. We identified the individuals. We've passed the information on to DLA investigators, and we also sent it to the Joint Terrorism Task Force in Honolulu for further investigation.

Mr. SHAYS. So you believe that these weren't just every-day Americans looking to protect themselves, but you believe that some of these suits may in fact have been attempted purchased by those who have evil designs on our country?

Mr. RYAN. I think it's too early to say. At this point I think we have to continue the investigation. We have to gather all the facts, let the Joint Terrorism Task Force do the appropriate followup. We can report back to the committee with the findings.

Mr. SHAYS. Do you have concern that they may be?

Mr. RYAN. I always have concerns. I have concerns that any time that we've given protective equipment to our soldiers and then we put it on public auction that someone can get ahold of it. I have concerns about reverse-engineering these suits. But once we looked into it and we found that you could buy them on the Internet through a public auction and not necessarily provide specific information about yourself, yes, I am concerned about that.

Mr. SHAYS. So——

Mr. KUTZ. Mr. Chairman, the technology for these suits is used around the world. There are 17 countries that have this type of chem/bio suit. So this is not technology that is unique to the Federal Government of the United States.

Mr. SHAYS. Yes. But bottom line is, there's concern that it may have been bought by the wrong people. Fair enough.

Mr. Gilman, you have the floor.

Mr. GILMAN. Thank you, Mr. Chairman. I address this to our panelists. Why can't DOD track and account for the JSLIST on a department-wide basis?

Mr. KUTZ. I think it's a combination—if you look at any of the issues with DOD with financial or inventory management, you've got people, processes and systems, including the information technology. What we've found here was that the lack of the integrated or interfaced systems, it broke down along the way so that the information was not tracked. The information was sent from the warehouses at DLA down to the units. At that point the warehouses no longer track the information. When the information got down to the units, you had inconsistent ways that they were being tracked or, in some cases, they weren't being tracked at all, and when we looked at Wal-Mart and Sears, what we found was from the corporation down to their distribution centers down to the retail stores, you had completely integrated or interfaced systems.

So, for example, when I mentioned the toothpaste before, they were always able to go in—that happened in a matter of minutes

they were able to go in and identify that there were 25 6.4 ounce tubes of toothpaste at the Fairfax store. So it's integrated systems and processes.

Standardized data is the other thing. Back on the military unit level, we found the different units were reporting different information in the systems, and so if everybody doesn't record the same information, it's hard to roll up things like the expiration date or lot number, etc. And, again, that was a common element with Wal-Mart and Sears, that they had standardized data for each one of their inventory items that could roll up and be throughout all their systems.

Mr. GILMAN. So is this going to be corrected now? Is anyone working on correcting this failure?

Mr. KUTZ. We have recommended in the past to the department to implement an integrated inventory management system, and certainly that is something that they have attempted to do before and are currently attempting to do now. There are certainly challenges with that. Again, similar to what we talked about with the proliferation of systems, where they need to have an architecture to see how all of these different systems development efforts fit into that so that at the end of the day we know what we're building today is going to fit into the architecture of tomorrow.

Mr. GILMAN. These suits are a relatively benign item. Does DOD have similar tracking problems with weapons and ammunition?

Mr. WARREN. Yes, they do.

Mr. GILMAN. Would you identify——

Mr. WARREN. Dave Warren. We've noticed in transit items with disposal items, items going into disposal, items being transferred from one Navy base to another, items being transferred from one Army base to another, and what happens is accountability for those items is lost, and most of those problems as we go in and look why does that happen, it's very similar to what you're seeing here today. It's either recordkeeping problems and/or systems that are not talking effectively to one another and not working in an integrated fashion. So this system, or a particular example we have today is, in essence, a systemic problem in terms of the control of inventory across the Department of Defense, and that is one of the reasons that we have identified inventory management as a high risk area since 1990 within DOD.

Mr. GILMAN. Well, David, is this all being corrected now?

Mr. WARREN. The short answer is no. It has not been corrected. There have been a number of initiatives and recognition of this problem over a 10- to 12-year period, I would say. The difficulty has been that there have been many fits and starts, so to speak, to get at this, but there has not been a continuity of effort that——

Mr. GILMAN. What is it going to need to get this corrected?

Mr. WARREN. A continuity of effort, a single focal point with responsibility and accountability for achieving even this broader—you mentioned Mr. Walker's testimony. What he proposed there is that there needs to be an overall business process transformation effort that includes the incorporation of not only financial, procurement, logistic systems that is placed in one central, focal point that understands the entire lay-down and architecture that is going to

occur, they are accountable for making that happen, and that can be driven through the department.

This committee, for example, then could call that person up and say, this is where we were yesterday, where are we now——

Mr. GILMAN. Let me interrupt. Is DOD undertaking such an effort now?

Mr. WARREN. They have some portions of that. I would let Greg speak to the financial portion which is kind of the centerpiece of that which we——

Mr. SHAYS. Let me do this. I'm going to have the Members do 5 minutes the first round, and we're going to do 10 the second. I always prefer the 10, but one or two Members may need to get on their way. So I just want to do that. We'll defer that part. Remember to make sure it's——

Mr. GILMAN. Thank you, Mr. Chairman.

Mr. SHAYS. Mr. Kucinich, and then we'll go the second round 10 minutes.

Mr. KUCINICH. I want to thank all of the gentlemen who have worked on this, and your staffs as well.

Mr. Kutz, I'm going to ask some questions and, you know, try to move along through this.

Has there ever been a complete recall of the defective suits that were identified 2 years ago?

Mr. KUTZ. I believe they attempted to recall them, but I don't believe that they were ultimately successful in identifying all of the suits.

Mr. KUCINICH. Why?

Mr. KUTZ. Because of the system we just talked about here.

Mr. KUCINICH. Let me ask you this now. Could you estimate how many defective suits are out there right now?

Mr. WARREN. The latest estimate was at 250,000 that were unidentified.

Mr. KUCINICH. So I want to get this straight. The administration has been talking about an invasion of Iraq, which is known to have biological and chemical weapons, some of which they use against their own people, and we have 250,000 defective suits that would otherwise protect our men and women who we're going to ask to go into battle, and they are not going to know if those suits would provide them protection or not? Isn't it possible that since these suits are defective that any men and women who would be wearing them in a combat situation under biological and chemical weapon attack could be in risk of their lives?

Mr. KUTZ. If they did get those, they would be. These are the old suits now. So they should not be necessarily used on the battlefield, but it is possible that they are out there and could be used.

Mr. KUCINICH. You know, I think all of us remember the situation in Vietnam years ago where people were given automatic weapons. Their weapons didn't work, and men and women died in battle. I mean, this is a—this is a very serious matter, because it relates to protecting those we ask to serve this country, and you're saying that even though 2 years ago this was brought up, they haven't straightened it out, that these suits are still out there. And furthermore, we're now finding that other suits, maybe the ones that are not defective, are being sold on the Internet that cost the

taxpayers $200 each, and they are being sold on the Internet for $3 each, and we really don't know who is buying them. You say that you referred it to the terror task force. Is that right?

Mr. RYAN. Yes, we have.

Mr. KUCINICH. Whoever it was, you felt that there was enough information, Mr. Ryan, to refer it to the terror task force, because these people may not have had the best intentions?

Mr. RYAN. I think at this stage of the game what we decided to do was, based on the information that we were able to determine on the bidder of those items. I might add also that these items were never released to these people, because GAO stepped in, along with the program people, and we stopped the pickup of these items. But based on the bidding information that we saw and the lack of background information, yes, we truly believe that these needed to be referred and they needed to be checked out.

Mr. KUCINICH. When were these being auctioned? How recently were they being auctioned?

Mr. RYAN. Just 2 weeks ago.

Mr. KUCINICH. Whoa. Is it possible also, in addition to those that might not have the best intentions for the use of this equipment, that people who might represent individuals who want to sell them back to the government at 200 bucks a piece may be buying them? I mean, think about it. Is that possible?

Mr. RYAN. We had some concern about that. Preliminarily we looked at that in regards to selling them back.

Mr. KUCINICH. Would the government buy—let me ask you this. I mean, if the government needed them, would the government buy them back? Anyone?

Mr. WARREN. I know there have been instances where that has occurred with other types of inventory items.

Mr. KUCINICH. So that the government—the taxpayers could pay $200 for a suit, it be sold at $3 on the Internet, suddenly they discovered it was needed again and they may pay $200 again for the same suit? That is possible?

Mr. WARREN. It is possible, yes, sir.

Mr. KUCINICH. Who sells these suits? You know, once somebody makes a determination they are sold, who is it that actually sells it? Is it a military unit? Is it the Department of Defense? Is there, like, a bureau of auctions in the Department of Defense?

Mr. WARREN. The defense disposal system handles that, and that's part of the Defense Logistics Agency, and they have a marketing service, in essence, that handles that. In this particular interest—instance, they had contracted the end point of sale out—had been outsourced as a function, but it is DOD's responsibility which was delegated from GSA under this Disposal Act of 1949 to handle the disposal of all items within the Department of Defense.

Mr. KUCINICH. One other question, and my time is expired on this round. What kind of auction do they have? I mean, is this at Sotheby's? Or where do they auction these protective suits? EBay? You know, hello, whatever. Where do they auction these things?

Mr. RYAN. The auction basically takes place over the Internet. You go online, you register. There's a minimum bid. In this particular case the minimum bid was $35 for the lot. And you bid until you win.

Mr. KUCINICH. How many in a lot?

Mr. RYAN. I don't know how many were in this particular lot. We participated, and that was the price.

Mr. KUTZ. We did attempt to buy one of the lots.

Mr. RYAN. We bid on the—when it came up for sale, with the permission of the committee, we attempted to purchase, and we lost out on the bid at the final end.

Mr. KUTZ. We drove the price up to $3.

Mr. KUCINICH. You drove the price up?

Mr. RYAN. We had an automatic—we were bidding against an automatic system, that every time we bid, they bid higher.

Mr. KUTZ. Some of the earlier lots had sold for less than $3 apiece.

Mr. KUCINICH. Well, gee, thank you for saving the government that extra money.

Mr. SHAYS. Let me do this. We have Mr. Coyle. Come on in. Dr. Coyle. I'm sorry. I'm going to have you sit in that chair there. You're probably saying who am I and where am I going. I understand you just got off a plane. And I'm going to ask you to stay standing, because I'm going to ask you to put your books down. I'm going to swear you in. And then we'll proceed from there. If you'd raise your right hand, Mr. Coyle.

[Witness sworn.]

Mr. SHAYS. Thank you. Mr. Coyle, please be seated. You're going to get a chance to catch your breath a second. I'm going to go through with Mr. Lewis and Ms. Schakowsky. They're going to ask some questions, so you can get a little oriented. Then I'm going to have you give your statement before GAO leaves and then we'll do 10 minutes of questioning with each.

Mr. Lewis, you have the floor. I keep saying Mister. You are a doctor, and you have earned that. I apologize. Dr. Coyle.

Mr. LEWIS. Thank you, Mr. Chairman. Do you have any specific recommendations for fixing this problem, and if you do, how quickly could this be put in place to turn this around?

Mr. KUTZ. From a narrow perspective, we've recommended they implement integrated inventory management systems, and with respect to these specific items, our previous recommendation was to standardize the data. And that was really based on the inability to recall—to do a proper recall, certain information has to be in the system in a standardized basis to locate where it is. And that is one of the things—we talked to Wal-Mart, for example. You may recall the Tylenol recall with Johnson & Johnson back maybe 10 years ago or so. That is one of the important pieces of information that they had in their system. Because of customer service, they believe it's imperative that they're able to go back and immediately recall any defective products from their shelves.

Mr. LEWIS. So it could be as simple as DOD taking some lessons from Wal-Mart or Sears, then?

Mr. KUTZ. I wouldn't say it would be simple, but it would be something that is achievable. Certainly supply chain management at the Department of Defense is possible here. Inventory systems that would be either integrated or interfaced should be possible, yes.

Mr. LEWIS. Thank you. That is all I needed to know.

Mr. SHAYS. Thank you, Mr. Lewis.

Ms. Schakowsky.

Ms. SCHAKOWSKY. Thank you, Mr. Chairman. Mr. Kutz, I'd like to say it's nice to see you again, but it seems like you're always here and I'm always here and we're talking about financial mismanagement that is never ending, it seems, anywhere you look in the Department of Defense.

Two years ago the same thing was brought up. What, in your—to your knowledge has been done in the last 2 years, if anything, to address this problem?

Mr. KUTZ. They have a longer term systems development effort that we're aware of called the BSM, business system modernization, I believe, but that is not scheduled to be completed for several more years.

With respect to shorter term initiatives, the Air Force has implemented—if you look at the poster board up there, the Air Force has a system that they use that is standardized across the Air Force that does have all the information, each of the units in it, including manufacture, date lot number, etc. And based on our work we've seen that they have talked about sharing that with the Army and the Navy, so there is some hope for that. But the bigger systems development effort they have is still years away, and by the time all of these new suits are deployed, the system will probably come online at or near the end of that period, which means you'd have to do a complete physical inventory to get them into the new system.

Ms. SCHAKOWSKY. Are we paying too much to start with? If it's sold at auction for $3 and we're paying 200 to start, is that too much money?

Mr. KUTZ. For the cost of the actual new suits? We didn't look at that. The old battle dress overgarments, I believe, cost about $80, and this is a new and improved technology. So $200 or $207 for the coat and the trousers, we didn't evaluate whether that was a good price or not, if that is your question.

Ms. SCHAKOWSKY. That is my question. When you compare it to—you said you boosted the price to $3 a suit on the Internet. It makes me wonder if we weren't suckers to begin with by paying $200 a suit. But as you say, that isn't even part of the inquiry. That is a whole other question, whether we're overpaying.

I can't help but stress how this lack of accountability in the Department of Defense, which seems to be sloughed over in every budget cycle, it's so frustrating to me. If it were the Department of Education or Housing and Urban Development, I'm sure we'd have all of these investigations, and we'd practically shut it down and things would be defunded, and yet here we are with a $48 billion increase in the defense budget with these ongoing problems.

Let me ask you this. Do any of you have any doubt whatsoever that these two inquiries are only a small example of what is happening on a much wider scale throughout the Department of Defense?

Mr. KUTZ. What we would believe, and others can add on, that this would be indicative of other broader problems. As was mentioned earlier, the total purchase amount for the JSLIST at the end of the day will be about $1 billion. Right now, according to DOD's

records, which, you know, cannot pass the financial audit standards right now, there is about $200 billion of items that are in the various inventories at DOD. So you can see that this is a very, very small example of what is a broader issue. So we would say that this could be indicative of various other things.

Mr. Warren has seen a lot of other examples of the inventory——

Ms. SCHAKOWSKY. Let me just underscore what you said, that they cannot pass an audit.

Mr. KUTZ. Right. I think what we're talking about today would give you some idea of why with respect to the financial information that would be necessary to pull this into a set of financial statements just for this one item.

Ms. SCHAKOWSKY. And let me also get in the record other findings that you have mentioned, that have been mentioned, that $1.2 trillion in transactions cannot be accurately accounted for through the Department of Defense. Is that not true?

Mr. KUTZ. That's based on an inspector general report, correct.

Ms. SCHAKOWSKY. Mr. Warren, did you want to further comment?

Mr. WARREN. It is really a business process transformation problem. Again, the systems and the business processes within the Department of Defense largely we developed as it relates into the logistics area in the 1960's and 1970's, and at that time they were quite good systems and based on modern business and practice at that time.

However, over time they have evolved and have not modernized. So what you're faced with is what is often referred to as a brute force system. It gets the job done, but in many respects, it's very inefficient. The department is struggling at this point and really has over the last 6 to 7 years to come up with a transformation process to bring their logistics systems into a modern supply chain-oriented logistics process. But the progress has been very slow, and they're not there yet. And so as a consequence, you continue to see many of these inefficiencies, overbuying, in order to ensure that you have what you need when you need it so——

Ms. SCHAKOWSKY. I would agree with everything you said except that they get the job done because ultimately when the taxpayer overpays and defective suits are out in the field, as Mr. Kucinich pointed out, this is not really getting the job done.

Thank you, Mr. Chairman.

Mr. SHAYS. Thank you. Mr. Coyle, before having your testimony, I'm just going to ask a few questions of our witnesses here.

Now, we've had a number of hearings over a number of years and we have looked at just the poor inventory control in general, and now we have a very specific kind of case. What's on the record now is that in some cases we had a surplus, in some cases we didn't, as perceived by military personnel in different parts of the world, frankly. And so in some cases, not in some cases, we're purchasing more of these suits but yet we were selling some. That's correct, right? And there is a concern that some of the people who may have been buying them may in fact have bad intentions on the United States to be further looked at. But in other words, there's enough of a concern that the GAO made referrals to proper legal authorities, correct?

Mr. RYAN. That's correct.

Mr. SHAYS. Now, then there's also the old suits of which we think 250,000 are defective. Do we use the old suits as well? Tell me the status of old suits. When I say old suits, I don't mean these suits old, right? These are a different suit. Tell me, the defective suits, are they these suits?

Mr. SMITH. No, the defective suits are what they used to call the battle dress overgarment. It's a completely different suit than the JLIST. So the ones that we're talking about that we could not find, or we reported they couldn't find 250,000 of, were the older suits, not the JLIST. The older suits was the subject of the hearing 2 years ago by this subcommittee.

Mr. SHAYS. Right. No, I remember it because what's so horrific about it is those suits were still being used but they were put into the lot of good suits, so we had a mixture of good and old, bad, and yet we didn't have any way to track them, correct?

Mr. SMITH. That's correct. The issue we have today is the tracking is the same. They couldn't find the old suits. Today they're not able to track the new suits. So the issue about the tracking——

Mr. SHAYS. We don't even know where the new suits are, I mean, technically. We can't say they're here, here, here, and here.

Mr. SMITH. The only ones that they actually could account for would be the ones that are in the DLA warehouse when they come from the manufacturer. Once they are issued out to the individual units, then, as shown on the chart, it becomes very difficult to be able to track and account for those suits down to the military units.

Mr. KUTZ. And as of September 30, 2001, that was 1.2 million of the new suits that had been distributed out to the units. And we would have the concern that they would have the very same problems with tracking those that they had with the BDL. Again, it's because everybody is doing something different, particularly in the Army and the Navy, where some units that we visited weren't tracking them at all; other ones had, you know, the dry erase board, handwritten notes, some had pen and paper, etc. So if you really had to find out where these things were on a moment's notice, either on a recall on some emergency happened somewhere, these 1.2 million would be very, very hard to find and it would be highly unlikely you would get an accurate count of them at any point in time.

Mr. SHAYS. It's clear a system like this invites extraordinary waste, of course, you've illustrated that. It's wasteful to sell when you're already buying, and it's alarming that you would be selling a suit that could be used for—by our potential enemies. But it also just invites fraud, doesn't it?

Mr. RYAN. [nods in the affirmative.]

Mr. SHAYS. A nod of the head is hard to transcribe.

Mr. RYAN. Yes, I think it can, because they lose visibility of it at the service units. If there's no accountability at that point, as Mr. Kutz and Mr. Warren have pointed out, you don't know where they're at.

Mr. SHAYS. So someone could literally sell a lot of it—this is—by the way, we're focused on the suits, but this is to illustrate the whole system. And what—we all bring to the table different experiences, but when I was going—was in the Peace Corps, I spent 3

months in Molokai and a wonderful family invited me for a Christmas dinner, seven-course meal. She was Chinese, he was Hawaiian. And I remarked about the quality of the food, and they opened up one of these chest freezers, and in it was U.S. Government-stamped food, meats. And at the time I just made an assumption that they had bought them. Maybe they bought them. They didn't buy them over the Internet. So I probably shouldn't assume they bought them illegally, and I didn't at the time, but it was clear to me that they shouldn't have it.

Mr. KUTZ. Mr. Chair, one thing that's happening now is the units out in Hawaii we talked to, there's some confusion about the manufacturer's warranty versus the useful life of the suits. The people that excess these were, it appeared, under the mistaken impression that once 5 years is up with the manufacturer's warranty, that the suits are no longer good. That is not correct. We understand these have been designed to last at least 14 years.

So given the first group of these that was manufactured was in 1997, these are starting to reach their 5-year warranty. There is a risk unless the Department gets the word out that other people will have boxes of these in a corner, that aren't in any records, that will look at the manufacturer's warranty and say 5 years are up, it's time to excess these. That appears to be in this part with the Hickam Air Force Base and the Naval Ordnance Disposal Unit in Hawaii that excessed some of the suits that we have here at the table.

Mr. SHAYS. OK, let me do this. Let me call on you, Dr. Coyle, to make your statement, and then we'll go 10-minute rounds and we'll ask Mr. Kucinich to start us off.

STATEMENT OF JOHN J. COYLE, DEPARTMENT OF BUSINESS LOGISTICS, PENNSYLVANIA STATE UNIVERSITY

Mr. COYLE. Good morning, Mr. Chairman.

Mr. SHAYS. Is your mic on?

Mr. COYLE. Good morning, Mr. Chairman and members of the committee.

Mr. SHAYS. I'm sorry, I was going to just—given that you walked in kind of looking like you didn't know who you were and where you were, I want to set the record here. You are Professor Emeritus and the Business Administration Director of Corporate Relations for the Center for Supply Chain Research, and you have written over 100 publications in the area of transportation and logistics, presented papers on these same topics at professional meetings, including the Council of Logistic Management, the American Marketing Association, and National Academy of Sciences. And you're a coauthor of two best-selling books, the Management of Business Logistics and Transportation, and you edited the Journal of Business Logistics from 1990 to 1996, and you're on the editorial review board of the Journal of Business Logistics of Supply Chain Review and the International Journal of Physical Distribution Logistics. You are highly qualified to come before this committee. It's an honor to have you, and the floor is yours.

Mr. COYLE. Thank you very much for that kind introduction. Good morning again to you, Mr. Chairman, and to members of the committee. I apologize for being late this morning. I sat on the

tarmac in State College, Pennsylvania this morning for about 2 hours in a ground fog, so we were obviously late.

Mr. SHAYS. We're going to have some votes. You have 5 minutes—let me see we have one vote or two. We have—it's a recess. We're cool. Go for it. I've interrupted you twice. Three times, and I'll give up the chair.

Mr. COYLE. No problem. And I also apologize because I did not hear the earlier testimony, and I don't know whether my comments will be somewhat redundant with the other testifiers. So let me just be very brief and then you can ask me questions.

As you all well know, the landscape for business organizations changed dramatically during the 1990's. We feel in our Center for Supply Chain Research that was the result of five or six major external forces, including a new and very empowered consumer, more highly educated, better income, but more importantly, much more information at their disposal:

Second, a tremendous amount of consolidation at the end of the supply chain in the hands of the retailer. So as you probably know, last year, for example, Wal-Mart became the largest corporation in the United States in terms of sales, exceeding not only Ford and General Motors but also Exon/Mobil.

Third, a change in government policy over a decade and a half, with deregulation of major sectors that support business and liberalization of trade.

Fourth, a tremendous growth in globalization and global competitive forces impacting businesses.

And, finally, technology changed dramatically, really changing the way businesses interacted with each other and also changing the way they could interact theoretically with the consumer.

Supply chain management, as my co-testifiers probably said, arose as a strategy, if you will, or an approach, a set of concepts to try to help organizations be more competitive during the 1990's. As we enter into the 21st century that continues to be the case.

This concept of supply chain management encompasses product flow, information flow, and financials from a corporate specter, and it's important also to recognize that it covers, you know, extended enterprises.

Now, as we look at the supply chain in organizations, we see a couple of key things that are happening. One is really trying to understand demand, and aligning demand and supply are some of the comments here, and it seems like that's one of the problems. Creating value for the end user. Developing a supply chain network strategy, collaborating information sharing and redesigning your processes.

There are a lot of examples, and you probably heard of already of successful corporations in this area that have driven costs out of their system, and at the same time become more effective. They are not, however, without their challenges, particularly in the more complex types of organizations.

While I don't have the expertise that some of my fellow testifiers have here today with respect to the Department of Defense, we have had the opportunity to work with a number of DOD organizations including DLA, particularly in Columbus, Ohio, the Defense Supply Center, and also have been actively involved with the U.S.

Marine Corps for 4 years in a series of educational programs and some other types of research, and also with the Army during the course of the last year and a half.

And as I look at those organizations, I have been impressed, I must say, with the people that have I been involved with in their trying to understand what makes business organizations successful, in terms of their ability to implement approaches that will allow them to take cost out of their supply chains and also to make them more effective.

So at least at the level I've been dealing with, the personnel are very much interested in achieving the objectives that I'm sure you are. They obviously have a complex organization. It's much more complex than most of the business organizations that I've worked with over the years, and so the complexity is a challenge. They also have, I think, some challenges in terms of the way budgets are written for Department of Defense groups, and then also with some of the regulations that they have, policy they have with respect to procurement. But that's not to say that improvement is not possible, as I'm sure other members have suggested here today with their testimony earlier.

It seems to me that, you know, the biggest challenge is for horizontal and vertical exchange of information. Information is power. Information really is the thing that allows corporations to achieve the things that they have. And that exchange across—horizontal exchange with the using unit and with internal organizations and vertical interchange, is challenged, as was suggested here earlier by somebody sitting here at the table with me, by technology that they don't have at their disposal and by, I think, the fact that the processes have not been redesigned.

So, while there has been success, I really think there's a lot more that can be done to attain the kind of things you seem to be driving toward. And one of the key objectives of a lot of organizations today is to achieve what they call inventory visibility. The key to success in a company like Dell or Wal-Mart is they do have inventory visibility. They know where the inventory is, up and down their supply chain. While they may from time to time lose track of an individual item, it's really surprising how closely they control that.

So let me just stop there and try to answer any questions you have. And again let me apologize, because I may have been redundant.

[The prepared statement of Mr. Coyle follows:]

Statement by
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Before

THE SUBCOMMITTEE ON NATIONAL SECURITY, VETERANS AFFAIRS AND INTERNATIONAL RELATIONS

COMMITTEE ON GOVERNMENT REFORM
UNITED STATES HOUSE OF REPRESENTATIVES

June 25, 2002

Mr. Chairman and Members of the Committee:

Thank you for the opportunity to provide the Committee with my views on innovative best practices in supply chain management that could offer opportunities for DoD to improve their efficiency and effectiveness.

During the 1990s, supply chain management became a part of the CEO, CFO, COO and CIO vocabularies. The dynamics of the global market place had changed dramatically. The lexicon of many private and public organizations expanded to include supply chain management and related concepts and strategies such as continuous replenishment, pull distribution systems, reduced cycle times, etc. The *Wall Street Journal, Business Week, Forbes, Fortune* and other major business periodicals and publications featured articles related to supply chain management and logistics.

The 1990s was obviously a decade of great* change from a global perspective as well as for the U.S. economy. The dim, dire outlook that was envisioned for the U.S. economy in the late 1970s and early 1980s changed as the 1990s turned out to be a decade of great growth and overall economic well being. Employment reached levels never envisioned by macro economists in the 1960s and 1970s as unemployment was reduced below five percent in many areas of the United States economy. The doom and gloom of the early 1980s was replaced to a large extent by perpetual optimism and boundless expectations.

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* This paper is based in part upon *The Management of Business Logistics: A Supply Chain Prospective*, by John J. Coyle, Edward J. Bardi and C. John Langley, Thomson/Southwestern, 7th Edition, 2002.

The Changing Business Landscape: Driving Forces

The rate of change has accelerated both in the U.S. economy and globally. Businesses and public organizations have had to respond to the changes and the inherent dynamics of their environment. A key to understanding how to respond, is to have some perspective and understanding of the forces of change.

The Empowered Consumer

Understanding consumer behavior has been a focus of marketing analysis and strategy development for many years. Typically such analyses examine consumers in total and/or major groupings or segments to understand their needs and to respond to them with products and services. Such analyses have some implications for logistics and supply chain management, but they have been viewed at times in the past as being somewhat indirect impacts. Today, the impact of the consumer is much more direct for supply chain and logistics managers.

The consumers in today's marketplace are enlightened and empowered by the information that they have at their disposal from the internet and from many other sources. Their access to supply sources has expanded dramatically beyond their immediate locale by virtue of catalogs, the internet and other media. They have the opportunity to compare prices, quality and service. In turn they demand competitive prices, high quality, tailored/customized products, convenience, flexibility and responsiveness. They tend to have a low tolerance level for poor quality in products and/or services.

The demographics of our society with the increase in two career families and single parent households have made "time" a critical dimension for many consumers. They want and demand quicker response times and more convenient offerings according to their schedules. The five day week with 9 AM to 6 PM service for customers is no longer acceptable or tolerated. Seven days/24 hours is frequently the expectation with a minimum of wait time. The age old axiom of "let the buyer beware" should probably be changed to "let the seller beware". Today's consumers do not have the loyalty of previous periods or much patience with inferior quality in any area.

Why is this consumer revolution so important in a supply chain/logistics content? The reason is that the supply chain/logistics requirements have dramatically increased, to serve the consumers of today. If retail establishments have to be open 24 hours/7 days per week, this places greater demands upon the supply chains that serve them. Also, the pressure from consumers related to price put pressure in turn upon the supply chain to operate as efficiently as possible.

Power Shift in the Supply Chain

Traditionally, manufacturers were the dominant force in supply chains or distribution channels. This was particularly true for consumer products. The manufacturers

designed, produced, promoted and distributed their products. Vendors/suppliers and wholesalers, distributors and retailers were usually smaller in size and depended upon the leadership of the large manufacturers. During the post World War II era with the introduction of TV advertising, manufacturer's brands took on increased significance. Distribution and logistics systems were not accorded as much attention as product development, promotion and/or brand management.

During the 1980s and 1990s, a significant change occurred in the relative economic power in a number of supply chains with the trend toward retail consolidation and the emergence of giant retailers such as Walmart, K-mart, Toys-r-Us, Home Depot, etc. For example, in 2001 Walmart was the largest company on the *Fortune 500* list in terms of sales with annual sales of over $200 billion. A comparison of the *Fortune* 500 list during the 1990s shows many retailers of products and/or services have moved up on the list.

What is the significance of this shift in power to the supply chain? The consolidation of economic power at the retail end of the supply chain led to very large retailers whose basic competitive strategy is usually based upon lower prices. This strategy focused attention upon the distribution systems of manufacturers which tended to treat their customers similarly and not pay attention to how their order fulfillment strategies affected the efficiency of the retailers. Such an approach tended to increase operating cost for retailers.

The large retailers were able to exert pressure back in the supply chain to force manufacturers to change their logistics and supply chain strategies to include tailored pallet packs, scheduled deliveries, continuous replenishment systems, etc. Manufacturers found that a small number (15% to 20%) of their customers accounted for a substantial (75% to 85%) of their sales. Such important customers had to be accorded special treatment and that treatment frequently translated into improved logistics systems which had an important and positive impact upon the retailer's efficiency. In other words, the consolidation of economic power at the retail level probably caused more change and focus upon improved logistics systems during the 1990s than manufacturers implemented during the previous three decades.

Deregulation

The infrastructure of many businesses is based upon transportation, communications, energy and financial systems. These four 'legs' of business operations have undergone fundamental change during the 1980s and 1990s because of government deregulation. All four had for many years been subjected to comprehensive regulation which developed in an era when it was felt that businesses needed to be protected from the supposed monopoly power that these industries possessed. The regulations were probably philosophically sound in an earlier era in U.S. industry, but much had changed during the 1960s and 1970s; not only among domestic organizations but also globally. The net effect of the comprehensive and complex regulations affecting these four industries was a

system that tended to stymie innovation and result in relatively high prices being charged in these four important sectors of our economy.

Beginning in the late 1970s and into the 1980s, the transportation was deregulated in terms of economic controls such as rates and areas of service. The net effect was that it became possible for transportation services to be purchased and sold in a much more competitive environment. The result was frequently lower prices to users and better service. It became possible for carriers and shippers to negotiate and to make changes in their respective operations to allow carriers to operate more efficiently and lower their prices.

The financial industry was also deregulated and the distinction between commercial banks, savings and loan associations, credit unions, for example, has blurred as these institutions have been allowed to broaden their array of services and make the financial market more competitive; and like the transportation industry, more responsive to customer needs in the new environment for consumers and retailers described in the previous two sections.

The changes have fostered many changes in the ways that businesses can operate. For example, the opportunity to invest cash at the end of the day in the global overnight money market in periods of six to ten hours. This opportunity made many companies more cognizant of the value of asset liquidity and asset reduction, especially inventory. Payment transactions for buyers and sellers have also changed dramatically with the alternatives in financial practices made possible and fostered by deregulation. The purchase cards used by many procurement departments for MRO items are just one example of the efficiencies that were made possible by the deregulation.

The communication industry was also made more competitive but the scenario was different since the major cause of change was a Supreme Court decision that split up the AT&T/Bell telephone system into regional companies and separated the 'long lines system' of AT&T and made it accessible to other companies, such as MCI, who wanted to sell telephone services. Like the other two industries discussed, the communication industry has undergone much change and more is coming with the possible integration related services such as cable, telephone, computers, wireless access. Businesses and the general consumer population are all being impacted by the many changes in this industry from cell phones and pagers to email, EDI and the Internet. Communication efficiency and effectiveness has lead to dramatic improvements and opportunities in logistics and supply chain, e.g., inventory visibility, quick response replenishment, improved transportation scheduling, order entry, etc. Supply chain practices have been improved dramatically leading to lower cost and better customer service. Some people argue that the best is yet to come.

The final industry segment is the energy industry, specifically, electric power, which is being deregulated on a state-by-state basis. In the states where deregulation has occurred, businesses and households are able to choose their electricity provider. In other words, there are competitive alternatives which has resulted in lower prices to users. It is likely

that as deregulation becomes more widespread there will be more profound effects upon the industry similar to what has occurred in transportation, finance/banking and communication. However, initially the changes appear chaotic or negative as the industry adjusts to deregulation. Such adjustments occurred among transportation companies, financial institutions and in communications, e.g., bankruptcy, scandals, etc. The long run impact will probably be more positive with lower prices and new services for users. It is also likely that the structure of the energy industry will change.

Globalization

It is difficult to single out one of the five change drivers and point to it as having the biggest impact. However, if one were to be selected as being most important, many individuals would argue that it is probably globalization. In the eyes of some individuals, globalization has replaced the so-called 'cold war' of the post World War II era as the dominant driving force for world economics. The concept of the "Global Marketplace" has taken on new meaning for all enterprises (small, medium and large) and to individual consumers. Changes in government policy and the 'new' technologies have made the global economy concept a fact of life.

In the U.S., globalization has evolved from the 1970s when U.S. companies began to practice more aggressive global sourcing or procurement of materials, parts and supplies; to the 1980s when aggressive marketing in international markets became more commonplace among larger companies; to the 1990s when a true global perspective began to be taken and companies sought to rationalize global networks by asking:

- where in the world should they source?
- where in the world should they manufacture?
- Where in the world should they market their products?
- Where in the world should they warehouse and distribute from?
- What global transportation strategies should they utilize?

The liberalization of international trade has been aggressively pursued by a number of countries which has opened up new markets and sources of supplies for most companies. Not only large businesses but also small and medium size companies have been able to participate in the globalization. The opportunities have been enhanced by the technology revolution that will be discussed in the next section. The consumer has benefited from the many alternative sources of supply for wholesalers and retailers which has lowered prices, raised product quality and dramatically increased choice alternatives to the consumer.

With the changes occurring from internet and other related technologies, some individuals are arguing that there is "no geography" any more. Products and services can be bought and sold anywhere in the world no matter how large or small the enterprise. Product and service information is available on a real time basis and comparisons can quickly be made. Such openness of markets and sources is both a threat and an

opportunity and has profoundly impacted how businesses operate and consumers view their purchase opportunities.

Supply chain management, therefore, usually has to be labeled global supply chain management in today's environment. Globalization presents some special challenges and issues for business organizations. The distance factor alone becomes significant with shipments moving thousands of miles from vendors and/or to customers. In an environment of reduced cycle times, expected higher levels of reliability and emphasis is upon efficiency, the distance factor presents some special challenges to logistics and supply chain managers.

The discussion of globalization provides a convenient segue for the discussion of the fifth change driver, namely, technology.

Technology

Technology can be viewed legitimately as a facilitator of change on a micro basis since it allows companies to implement many of the strategies to be discussed later in this paper. However, technology can also be classified as a change driver on a macro or external basis. The revolution which has occurred in technology, hardware and software, has forced many companies to change the way they "do business".

We live in an era that has been described by some individuals as the "Information Age", but this description does not do our present environment justice. There is no question that businesses and consumers have much more information available today which influences how they buy and sell goods and services. But technology has also changed the modus operandi in the market place. It was traditional for consumers/customers to buy at the business 'place' in accordance with the business time schedule. The time aspect has changed, as previously noted, since it has became more customary for many businesses to be accessible 24 hours a day, 7 days a week. Now, the internet and related technology is changing the place aspect.

Buyers no longer have to go to the seller's place or a 'space' to view and buy products. It can be argued that this is not new but rather an extension of catalog sales, but the internet is so much more dynamic and accessible. It would be analogous to comparing the Model T Ford with a brand new Lincoln or Cadillac. Technology has sparked and enhanced the so-called consumer revolution but it is much more impactful than consumer purchasing practices.

Technology changed how buyers and sellers interact in the market place, both business-to-business (B2B) and business-to- consumer (B2C) and how business operates. Asset visibility, precision logistics, tailored/customized services, etc. are concepts based upon the technology currently available. While not a panacea for success, technology certainly provides the opportunity to improve efficiency and customer service.

The rate of change has accelerated, as previously noted, with consequent negative impacts if organizations do not change also. But such change can also have positive impacts if appropriate actions are taken. For example, deregulation of transportation lead to the demise of some very large, financially successful transportation companies who prospered in an era of regulation but could not cope in the deregulated, competitive market place of the 1980s. On the other hand, some other companies emerged in this more competitive environment, for example, Federal Express, Schneider National and J.B. Hunt, as large and economically viable organizations. They changed in response to the new environment.

The Supply Chain Concept

While reference to supply chain management can be traced to the 1980s, it is safe to say that it was not until the 1990s that the term, supply chain management, captured the attention of senior level management in numerous organizations who recognized the power and potential impact of a supply chain approach to making organizations more globally competitive and helping to increase their market share with consequent improvements in shareholder value.

As stated, supply chain management came into vogue during the 1990s and continues to be a focal point for making organizations more competitive in the global marketplace. Supply chain management can be viewed as a pipeline or conduit for the efficient and effective flow of products/materials, services, information and financials from the supplier's suppliers through the various intermediate organizations/companies out to the customer's customers or the system of connected logistics networks between the original vendors and the ultimate final consumer.

A supply chain is an extended enterprise that crosses over the boundaries of individual firms to span the logistical related activities of all the companies involved in the supply chain. This extended enterprise attempts to execute or implement a coordinated, two way flow of goods/services, information and financials (especially cash). Those three flows are very important to the understanding of supply chain management. The integration across the boundaries of several organizations in essence means that the supply chain needs to function like one organization in satisfying the ultimate customer.

The flow of products and related services, has traditionally been an important focus of logisticians and is still an important element in supply chain management. Customers expect their orders will be delivered in a timely, reliable and damage free manner and transportation is critical to this outcome. Product flow is a two way flow in today's environment because of the growing importance of reverse logistics systems for returning products that are unacceptable to the buyer, damaged, obsolete or worn out. There are numerous reasons for this growth in reverse systems. It is also important to note that networks for reverse systems usually have to be designed differently than forward systems. The location, size, layout of facilities is frequently different and the transportation carriers need to be utilized differently.

The second flow is the information flow which has become an extremely important factor for success in supply chain management. Traditionally, we have viewed information as flowing in the opposite direction of products, i.e., from the market/customer back to the wholesalers, manufacturers and vendors. The information was primarily demand or sales data which was the trigger for replenishment and the basis for forecasting. It is important to note that other than the retailer or final seller, that the other members of the supply chain reacted to replenishment orders. If there were long time intervals between orders, the members of the supply chain were faced with much uncertainty about the level and pattern of the demand which results in a "bull whip effect" in the supply chain.

One of the realizable outcomes of supply chain management is the sharing of sales information on a more "real time" basis which leads to less uncertainty, and therefore, less safety stock. In a sense, the supply chain is being compressed or shortened in the form of time/information flow back from the market place which leads to a type of supply chain compression – inventory compression. In other words, inventory can be eliminated from the supply chain by timely, accurate information about demand. If point-of-sale (p.o.s.) data were available from the retail level on a real time basis, it would help eliminate the bull whip effect associated with supply chain inventories and significantly reduce cost.

It should be noted that there should be a two way flow for information. In a supply chain environment, information flowing forward in the supply chain has taken on increased significance and importance. Forward information flow can take many forms such as advance shipment notices (ASN's), order status information, inventory availability information, etc. The overall impact has been to reduce uncertainty with respect to order replenishment which also contributes to lowering inventory and improving replenishment time. A related aspect of forward information flow has been the increased utilization of bar codes and RF tags which dramatically increase inventory visibility which again helps reduce uncertainty and safety stock. But also, the vastly improved visibility of pipeline inventory makes possible many opportunities for improved efficiency such as transportation consolidation and merge-in-transit strategies. The combined two way flow of timely, accurate information has lowered supply chain related costs while also improving effectiveness/customer service. But, there is more improvement that can be made.

The third and final flow is financials, or more specifically cash. Traditionally, financial flow has been viewed as one directional – backward in the supply chain. In other words, payment for goods, services and orders received. A major impact of supply chain compression and faster order cycle times has been faster cash flow. Customers receive orders faster, they are billed sooner and companies collect sooner. The faster cash-to-cash cycle or order-to-cash cycle has been a financial bonanza for many companies because of the impact on profitability. Dell Computer which has been the focus on much attention compared to other computer companies, especially Compaq, has been a major beneficiary of a compressed supply chain and the related faster cash flows. Dell is turning their inventory 75 times per year compared to ten to twelve turns other computer

manufacturers. More importantly for this discussion, since they fulfill their orders in 5-7 days, they often receive payment 15 to 20 days before they pay their vendors. In essence, they have a negative cash flow.

The supply chain perspective is very dynamic and provides an opportunity to reduce the cost of doing business and improve customer service for many companies. However, it is not easy to implement. To gain an understanding of the challenges, we will examine the major characteristics of supply chain management.

Characteristics of Supply Chain Management

The definition of supply chain management presented previously suggested a number of important factors and related characteristics that are key to successful implementation. The key factors are inventory, cost, information, customer service, collaborative relationships. Each of these deserve some special consideration.

Inventory. Managing the flow and level of inventory is a central focus of supply chain management and a major performance metric to gauge success. In simplistic terms, the level of inventory must be sufficient to provide acceptable customer service but low enough to minimize supply chain costs. To maintain the balance between supply of and demand for inventory stock, the supply chain requires integrated management to avoid duplication among members of the supply chain. Visibility of inventory as it moves through the supply chain is important to reduce or eliminate uncertainty which decreases safety stock. This includes visibility of inventory being held in warehouses and other storage facilities as well as inventory in transit. The use of bar coding, RF tags, and other related technology provides the opportunity to reduce safety stock or buffer stock which usually is accumulated at the interface between organizations in the supply chain and frequently duplicated by both organizations which is illustrated in Figure 4 by the bulges in the pipeline.

Another important characteristic of effective inventory management is to attempt to pull it through the supply chain in response to demand as opposed to pushing out inventory in advance of demand which tends to inflate inventory levels and lead to obsolete inventory and lower inventory turnover. A number of companies, such as Dell Computer Company, have been successful in implementing pull systems which has had a dramatic impact upon their inventory turnover. Essentially personal computers which are ordered via telephone, fax or the internet are assembled/produced after the order is received. Dell can frequently produce the customized computer in 48 hours or less and ship it to their customers. Such a strategy has a dramatic impact on finished goods inventory. In conjunction with the outbound strategy, there is a complimentary JIT arrangement with vendors on the inbound side.

While it is not possible for all companies to produce products after they are ordered,(build to order) e.g., consumer food product companies, there are related strategies, such as postponement, that contribute to the same objective, i.e., lower pipeline/supply chain inventories.

Cost. As indicated previously, efficiency or lowering cost is an important objective of supply chain management. However, it is very important to note that the focus has to be upon the cost at the end of the supply chain which is in essence the total cost or what is sometimes called the landed cost at the end of the pipeline. This means the companies that are part of a supply chain need to be cognizant of what impact their approach and activities have upon their vendors and/or customers. Far too often, companies attempt to optimize their own cost which may have a negative impact on their venders or customers. In some instances, companies are just not aware of the impact of their strategies and/or tactics. In today's environment, as indicated previously, it is global supply chains competing against global supply chains. Companies have to coordinate their supply chain activities by sharing information and joint planning to accomplish this objective. In essence, this builds upon systems theory and total cost analysis that was discussed earlier in this chapter. Such an outcome is far more difficult to achieve when you are dealing with several companies rather than one.

Information. Managing the flow of information is a key factor for both efficiency and effectiveness in the supply chain. As previously indicated, it must be a two directional flow to really maximize the potential of supply chain management. A key characteristic is sharing information up and down the supply chain related to the flow and demand requirements. If information is shared, it can potentially be available on a real time basis. If the information also has a high level of integrity and accuracy, then it will significantly reduce uncertainty which in turn will reduce safety stock and obviously lower inventory.

As important as sharing real time information is to the successful management of supply chains, there is some reluctance in companies to share. This reluctance is usually based upon a fear that companies will lose competitive advantage if, for example, demand information or production information will inform competitors of what to expect and perhaps lead to lost sales often, such fears are not founded upon logistical analysis. Even if there is some disadvantage to sharing information, the advantages may far outweigh the disadvantages.

The other barrier to sharing information is the complexity issue. Frequently, there is an abundance of data collected by the technology of optical scanners, bar codes, computers, etc. but turning this plethora of data into useful information for decision making can be a challenge. Consider the amount of data being collected every day at all of the scanners at retail outlets. The amount of data collected is so overwhelming that it is very difficult to summarize, synthesize and manipulate it into useful form in a timely manner.

Nevertheless, much progress has been made with information sharing and more is likely to come in the future as we demonstrate the positive outcomes of such an approach. Shared information of high integrity on a real time basis is an important key to supply chain success.

Customer Services. As indicated previously, the decade of the 1990s has been described in some quarters as the information decade because of the impact that information

technology has had on how businesses can operate in terms of efficiency and effectiveness. Some individuals argue that the 1990s was the decade of Customer Service. Actually, a good argument can be made for either descriptor for the 1990s, but we should recognize that there is a synergy between the information and customer service. Timely information of high quality makes possible improved customer service and also lower cost which can mean lower prices to customers.

In the context of the discussion of supply chain characteristics, customer service is a very important attribute of successful supply chains. In the final analysis, the success of today's global supply chains is the value that they add for their ultimate customers in terms of the supply chain's landed cost/price and the related services which are provided. Information technology can play a significant role in facilitating customer service that provides the opportunity for a global supply chain to remain competitive and hopefully, gain market share.

Customer service has three recognized levels from a supply chain and logistics perspective. The minimum level is reliable, on time delivery and accurately filled orders. In today's environment, this basic level of service is necessary to retain customers. To increase sales with customers (especially large customers), it is necessary to be responsive to their special needs and requests. This second level may entail scheduled deliveries, advanced shipment notices, tailored pallet packs, etc., for example.

To sustain and grow market share, the third and highest level of customer service is required, namely, adding value for their important customers. Examples of value adding services may include vendor managed inventory, collaborative planning and forecasting, supply chain visibility of inventory, etc.

The importance of existing and potential customers have to be evaluated to develop priorities for extending the highest two levels of customer service. Many companies find that a relatively small percentage of their customers generate a significant share of their sales. These "A" customers require priority type service which an effective supply chain partner should be able to provide.

Relationships. Collaboration among supply chain "partners" is another important ingredient to supply chain success and to the ultimate goal of integration, i.e., operating the whole supply chain as if it were a single organization. Concepts such as partnerships and alliances have become a part of the vocabulary of logistics and supply chain managers and indicate that the more traditional adversarial basis to business interactions has been changing. The cooperative, collaborative approach is a recognition to some extent of the characteristics discussed above. However, supply chain relationships also need to incorporate more than shared information and a focus upon total supply chain cost. There also needs to be collaboration in planning strategy and tactics among supply chain partners. The collaborative planning utilized, for example, by Chrysler in working with their vendors has lead to significant cost reduction in producing their cars. The cooperative planning for a supply chain approach needs to include an internal, cross function team and external efforts with vendors, carriers, distributors, etc. The reported

successes of Collaborative Planning Forecasting Requirements (CPFR) among supply chain members is another example of the power of collaborative planning and information sharing among supply chain members.

In addition to the collaborative planning, there is a need to share risks and rewards. Most organizations have functioned in an environment where they attempt to minimize their own risk and maximize their own rewards which may mean that these outcomes are achieved at the expense of other companies. The more cooperative, collaborative approach defined by a supply chain approach, or the "win-win" outcome is the objective of collaboration strategies.

An underlying dimension of collaboration and partnering is a recognition that in the cast changing environment of today's global marketplace, successful organizations need to focus upon their core competencies and outsource other activities to supply chain partners. Such an approach allows more flexible, responsive, and agile responses to the changing business environment.

The next section provides details concerning four areas in which it is important to develop effective logistics and supply chain strategies. Included are time-based, asset productivity, technology, and relationship strategies.

Time-Based Strategies

Most people have heard the old adage "Time is money". The value of time can be measured in a number of different ways. For example, the earlier discussion of using the adapted EOQ model to make transportation modal choice decisions demonstrated that a choice of transportation with faster, more consistent transit times could help to reduce inventory and warehousing costs. Even though the faster mode of transportation may be more expensive, the net impact of savings in inventory and warehousing costs would be a reduction of total costs. This is an example of an effective strategy that is based on the trade-offs between transportation, inventory, and warehousing costs.

When logistics improvements require a level of investment (e.g., facilities, technology, equipment, etc.), it is important not only that the net savings exist and be positive but also that they represent an acceptable return on use of the firm's investment resources. This means that company measures such as ROI, RAO and economic profit should meet or exceed corporate standards and yardsticks to justify improving investment ideas.

One aspect of time-based strategies that will receive additional attention in the future is the impact of logistics and supply chain improvements on cash flow. As transportation times continue to become shorter and more consistent, for example, there are significant savings in working capital that is tied up in inventories that are moving through the supply chain. Time-based improvements literally "free up" investment and the associated costs of carrying inventory throughout the supply chain. When viewing this from a total supply chain perspective, the objective has evolved to managing what is known as the "cash-to-cash cycle," defined as the time it takes to convert a dollar worth of raw

materials into a dollar worth of sales in the marketplace. This metric is becoming one of the more sought after measures of overall supply chain performance. In addition to reduced investment in working capital, shorter, more consistent supply chain performance typically means that participating firms receive payments more quickly than otherwise. This, too, can be a major type of time-based benefit that may result.

Reducing Cycle Time

Reductions in cycle time are based upon three factors: processes, information and decision. The previous discussion mentioned performing logistics-related processes faster and more consistently. If logistics is viewed as a series of *processes*, then those processes being performed faster will reduce cycle time, with the associated benefits already mentioned.

Another important source of reductions in cycle time has been provided by faster provision of *information*. The utilization of faster, more efficient forms of order transmission – EDI or the Internet, for example – can significantly reduce the time needed to complete the transaction. Also, the use of contemporary information technologies is becoming increasingly attractive as the costs of computer hardware and software, as well as overall connectivity, have been declining significantly. Timely, accurate information about sales, orders, inventory levels, transportation service, and so on leads to shorter cycle times and also reduces uncertainty about what is happening, which leads to lower inventory levels by reducing the need for safety stock. Thus, information has become a source of significant savings to many companies.

The final factor in reducing cycle time is *decision making*. In some organizations, this is the most important of the three factors. The critical issue is to empower individuals to make decisions relevant to their areas of expertise and responsibility. All too frequently, multiple levels of approval must be gone through before a decision can be made. One may refer to this as the *approval process* or, perhaps more realistically, as "*red tape*". The important point is that preexisting levels of needed approval slow down the decision-making process, which can in turn lengthen the order cycle. The flat, lean organizations that are becoming more important in today's environment are frequently characterized by delegated decision making, which emphasizes decision making at the so-called "action" level, such as that of the customer service representative. While decision making at the lowest possible level in the company can lead to the making of some mistakes, the experience of companies like Procter & Gamble and others suggests that the risk is justified in terms of the time that is saved and the improvement that often takes place with respect to customer responsiveness.

The combination of improved (faster) logistics processes; faster and more accurate flow of information; and quicker, more responsive decision making can lead to dramatic reductions in lead time or cycle time.

Time-Reduction Logistics Initiatives

Logistics processionals have used a number of important time-reduction initiatives. Among the more popular of these approaches is *cross-docking,* a concept that emphasizes flow of products through logistics facilities, rather than the use of storage. The relevance of cross-docking in today's logistics environment is clear; the concept typifies the types of initiatives that should be receiving attention today.

In addition, other approaches such as *just in time* (JIT), *vendor-managed inventory* (VMI) and *continuous replenishment* (CRP) are all characteristic of contemporary approaches that help our logistics practices more from "push" to "pull". While these techniques are frequently discussed in the context of inventory strategies, they also have important implications for time reduction of the order cycle because they shorten the total time from vendor to delivery to customers.

Also, contemporary concern for visibility of product throughout the supply chain has renewed our emphasis on the utilization of information technologies for product tracking and tracing, optical scanning and bar coding, stock location, and so forth. In short, the imperative is for firms to develop the ability to know where all products may happen to be at any point in time. This information is needed not for its own sake but, more importantly, to know when shipments may be late, need expediting, and so forth. Approaches like *efficient consumer response* (ECR), discussed earlier in the text, are also examples of effective time-reduction strategies or initiatives. The basic plan, as you will recall from earlier reading, is to reduce the length of time that grocery inventory spends in the pipeline, between the time it comes off the assembly line and when the final customer purchases the product. For a grocery chain, the average pipeline time was 104 days, and the goal was to reduce it to 61 days, which was quite an important. This initiative is obviously different from the others we have discussed in that it involves a whole group of companies that operate in the same supply chain. In today's business environment, groups of firms in various industries have formed their own, industry-specific organizations to accomplish a number of objective such as these. Examples include Covisint (automotive), Transora (consumer packaged goods), and Converge (high tech).

Finally, there has been considerable recent interest in leveraging the power of effective demand planning and forecasting to more meaningfully move from "push" to "pull". Improved ability to diagnose and even anticipate customers' needs enables the logistics and supply chain processes to make a much more valuable contribution to the achievement of corporate goals and objectives. Recent interest in *collaborative planning, forecasting, and replenishment* (CPFR) also serves as an example of a highly useful, contemporary technology.

Increasingly, companies are changing from the traditional push approach to a pull approach, which is a demand-responsive system. The switch requires a major change in corporate culture that is frequently difficult to achieve. Not only does the change require a switch to a flexible, quick-change manufacturing environment, necessitating retraining of the manufacturing employees, it also requires that manufacturing operate at a less-than-optimal cost from time to time.

In its purest form, the *pull approach* requires that products be manufactured only when an order is received. Obviously, this requires a fast manufacturing system. The ability to accomplish this feat essentially eliminates finished foods inventory, which can result in significant savings. Some very large companies are moving in this direction. Chrysler, for example, states that it can manufacture a car to order in fifteen days, which means that it fills a customer's order reasonably quickly. It is hoping to reduce that time to seven days within the near future. Chrysler's intent is to reduce dealer inventories. One of the Japanese auto manufacturers has a goal of being able to produce a car to order in three days. The achievement of these goals will significantly reduce the inventory of new cars.

Sears is moving to reduce the size of its retail furniture stores, which tend to be very large in terms of floor space. It will compensate by being able to produce furniture to order and deliver it within seven days after the order is received. Even some manufacturers of farm equipment, which is a seasonal product, are considering a change to a more demand-oriented manufacturing system. Pull systems are more challenging in such an environment because of the peak demand. These are just some of the many types of companies that have changed or are changing to a demand-responsive manufacturing and logistics systems. Also note that a pull system is consistent with the time-compression strategies discussed previously.

An additional aspect of pull systems is that some companies use the concept of postponement to achieve a system that is close to a pure pull system. As was indicated, postponement involves not completely finishing products until an order is received. An example of this would be the food processor that adds labels to the "brights", or unlabeled canned goods, after the orders are received, enabling it to reduce inventory levels significantly. Even the auto industry is using a form of postponement by assembling basic component packages – for example, the wiring harnesses – in advance of orders and then assembling the auto to final specification. Considering the fast pace of technological change, the practice of postponement is essential to the success of the many businesses in the compute and high-tech business.

Overall, leading-edge companies have used a number of initiatives to improve their competitive position by reducing cycle time, producing significant benefits in terms of efficiency and effectiveness. Time-reduction strategies, because of the potential to reduce costs, improve cash flow, and enhance customer service, have been the focus of much attention and have enabled companies to gain a competitive advantage.

Asset Productivity Strategies

As indicated, companies are deeply concerned about making optimum use of logistics and supply chain resources. Thus, there has been a focusing of attention on return on assets (ROA) as one of the primary metrics that help to evaluate the success of logistics and supply chain capabilities. Companies can improve return on assets by increasing revenue earned or by earning the same level of revenue with a reduced investment in assets. Consequently, companies have been investigating approaches to improving asset

productivity, or "doing more with less". Logistics is one of the important areas for improving asset productivity, and during the last ten to fifteen years many companies have been able to reduce logistics-related assets.

Inventory Reduction

One of the first assets to receive attention has been inventory, and there is much evidence to indicate that companies have been successful in reducing inventory levels or investment. Some of the proven initiatives that focus on time reduction have the synergistic benefit of reducing investment in inventory. While HIT, QR, and ECR certainly would be among these, there are others that are also very valuable. One strategy that has been utilized in tandem with ECR is vendor-managed inventory (VMI); and the Procter & Game and Wal-Mart relationships provide a useful look at how this works. Essentially, P&G manages the level of inventory of its products in Wal-Mart's stores and monitors their movement through Wal-Mart's distribution cross-docking facilities. For each product stock-keeping unit (SKU), P&G decides when to ship and how much to ship to Wal-Mart. Other companies such as Kraft, have developed similar relations with some of their best customers. One of the major reasons for VMI is reduction in inventory.

Facility Utilization

There are a number of ways to describe logistics systems. For example, the logistics network can be viewed as being composed of a set of fixed facilities connected by links represented by transportation. The fixed facilities are supplier locations, plants, warehouses, distribution centers, and customer locations. Looking throughout the logistics network, it has become apparent that a high priority has been attached to the effective utilization of all of these types of facilities. Regardless of where a product may be in logistics network, the objective is the same: "keep it moving." Only when product is at rest do the major kinds of waste and inefficiency begin to accrue. Along with the priority, all types of firms have subscribed to one way of characterizing the move to lean enterprises: "doing more with less." Many techniques and approaches we have been discussing do exactly that.

In addition, there have been other initiatives that have improved facility utilization or, more importantly, eliminated storage facilities altogether. One such initiative is the movement of shipments direct from manufacturers to retail stores, thus bypassing the traditional shop at or moves through the distribution center. This strategy not only contributes to improved facility utilization but does so by reducing or eliminating the need for certain types of facilities. Many distribution centers, ones that previously were an important link between the manufacturers and retailers, are being bypassed in the interest of improving logistics and supply chain efficiency. When there no longer is a need for such facilities, it is said that "disintermediation" has occurred. While this usually is not good news for those involved in operating the distribution center, it does help to reduce cost and improve service to the customers, the combined effect being improved positioning in the marketplace for the manufacturer. The Amdahl Corporation is a good example of a large, Fortune 100 company that has achieved significant savings and asset productivity through direct shipments to retailers from manufacturer.

Equipment Utilization Strategies

Another area of asset investment for companies is logistics-related equipment such as materials-handling equipment used in warehouses and transportation equipment that is leased or owned by a company. Some reduction in the amount of this equipment has occurred because of the reduction in the number of distribution centers, discussed in the previous section. Companies have rationalized their facilities and improved their throughput, utilizing the initiatives discussed previously. In other words, as companies have reduced the number of warehouse facilities that they operate, there has been a natural reduction in the materials-handling equipment that is necessary. Also, the use of technology-based devices such as handheld computers, bar code scanning devices, and radio-frequency communications in logistics facilities has caused a general reduction in the need for additional assets to move and store product.

In addition, transportation equipment is an important area in terms of asset investment. This has been an area of improvement for many companies. Since deregulation, many companies have reevaluated their position with respect to equipment ownership. Contract rates with railroads and motor carriers, more specialized service and equipment, lower rates, and so on have led companies to turn increasingly to the commercial sector for needed transportation services. As was explained earlier, transportation companies, particularly motor carriers, have become much more service oriented. Motor carriers frequently provide tailored service to shippers in the current, highly competitive environment. With lower rates and better service, for-hire transportation service has become a much more attractive alternative for many shippers. These cost and/or service benefits, combined with a strategy to lower asset investment for increased productivity, can have a synergistic impact that can result in an increased reliance upon for-hire carrier system to provide high-quality transportation service.

In addition to the improvements in productivity and efficiency made possible by the increased use of for-hire carriers, the companies that have continued to use private carriage in whole or in part to connect their nodes or fixed points have become more efficient in the utilization of their equipment. Many of them have duplicated the capabilities of commercial carriers, using software packages to schedule and dispatch their equipment more efficiently; installing direct communication links to drivers, consolidating shipments more effectively through load-planning software, and taking advantage of intermodal rail service for the line hauls parts of their service needs. The net effect is similar to the observation that was made regarding warehouse facilities-companies have been able to do more with less. In summary, there has been significant improvement in asset productivity with respect to transportation equipment. The improvement has been made possible by increased reliance upon for-hire carriers and better utilization of companies' own equipment through the use of technology, computer software, and better management planning.

Third-Party/Contract Logistics Services

Another key area of decision making that has had a dramatic impact on asset productivity is the use of third-party logistics (3PL) services. This increasingly popular alternative has led many firms such as DuPont, Nabisco, Procter & Gamble, General Electric, General Motors, and others to use the services capable 3PLs. The decision to utilize third-party or contract logistics companies has been fostered in part by the interest in reducing asset investment to improve asset productivity. An interesting aspect of 3PL use is that, while a customer may use a 3PL to help reduce commitment to its assets, the 3PL may focus its activity on "managing" the provision of logistics services and actually procure the "asset-based" services from selected contractors. While it is true that there must be some firms that actually provide the asset-based services, the response to this matter is more of a strategic and financial matter than one related to logistics operations,

The move to utilize a 3PL may be even broader than the reasoning discussed heretofore. Another rationale is the trend mentioned earlier of focusing upon core competencies as a strategy to operate more effectively and efficiently. Essentially, a company may feel that its expertise or core competency may, for example, be producing and marketing cookies and crackers. While it may be very capable of producing necessary inbound and outbound logistics services to support its products, the company may be even more effective if it focuses upon its two core competencies. While the rationale is commonly used to support decision to use a 3PL, the move can be even more attractive if it can be demonstrated that, additionally, there will be a cost savings and or improved asset productivity.

A good example of a large company that has used a third-party logistics to its advantage is Frito-Lay, a subsidiary of Pepsico. Frito-Lay is a producer of snack foods, and it had traditionally relied upon its own fleet of trucks to ship products from its thirty-eight plants to its twenty-seven distribution centers. As the company expanded, the management decided that is was not economical to produce every product at every plant, and so the company started to specialize production at plants. However, it did not fully understand the impact of the new strategy upon the logistics system. Shipping distances grew increasingly longer from the specialized production facilities to warehouses, and the company's private trucks usually had to return to their origin empty. Subsequently, Frito-Lay began to utilize an increasing number of common carriers to distribute its products to its distribution centers, but this did not go smoothly. Therefore, Frito-Lay decided to outsource the responsibility for managing its transportation operations to Menlo Logistics. Menlo has been able to reduce the carrier base by 50 percent and to negotiate discount rates for the remainder of the carriers on a national basis. The routing of trucks is handled by Menlo Logistics, which has a staff member on site at Frito-Lay's headquarters in Plano, Texas. Frito-Lay's transportation savings exceeded 10 percent the first year, which was significant in this highly competitive market arena.

As a concluding comment regarding the use of 3PL providers, there is a current trend toward the involvement of 4PL providers, to help manage a number of 3PLs that may be involved with a company's operations, a 4PL is looked to for provision of competencies

relating to knowledge availability, information technology, and skills in forming and sustaining successful supply chain relationships.

Technology-Based Strategies

It has been evident for some time that the realization of future logistics and supply chain goals will depend significantly on the further development and utilization of information technologies. Whether is be in the form of hardware, software, or connectivity, these technologies will be the springboard for progress and innovation.

A notable trend in the technology area is the increased utilization of e-commerce and the further development and refinement of synergies between e-procurement and strategic sourcing.

There are already significant shifts underway in terms of on-line capabilities to facilitate direct materials purchasing, For example, there are significant shifts from capabilities such as phone/fax and EDI to more contemporary technologies such as E-mail, Extranets, and E-marketplaces.

Strategic sourcing helps to simplify and streamline E-procurement activities. Alternatively, E-procurement assists strategic sourcing by fostering a more rational buying environment and by making more efficient and effective use of procurement-related resources.

Last, the movement toward electronic marketplaces will help to better distinguish between and enhance the capabilities of transactional versus collaborative capabilities. Among the activities included in the transactional category are: identifying new materials suppliers, finding and establishing prices for products and materials, and purchasing materials from suppliers. Examples of collaborative capabilities include: communicating delivery requests to suppliers, communicating production requirements to suppliers and optimizing production schedules, and managing and communicating engineering changes.

Relationship-Based Strategies

An area of significant strategic interest is that of relationships and relationship for information in the logistics and supply chain processes. Although the proceeding chapters have provided a number of perspectives on this topic, experience to date suggests that major challenges lie ahead with respect to our ability to develop and sustain effective relationships. As indicated earlier, one of the major attributes of using the services of 4PL is that this type of firm specializes in a number of areas, including relationship management. Thus, this area represents a critical challenge for future logistics and supply chain mangers.

Collaboration

The contemporary topic of importance is "collaboration." Most simply, collaboration occurs when companies work together for mutual benefits. Since it is difficult to imagine very many logistics or supply chain improvements that involve only one firm, the need for effective relationships is obvious. Collaboration goes well beyond vague expressions of partnerships and aligned interests. It means that companies leverage each other on an operational basis so that together then perform better than they did separately. It creates a synergistic business environment in which the sum of the parts is greater than the whole. It is a business practice that requires

- Parties involved to dynamically share and interchange information
- Benefits experience by parties to exceed individual benefits
- All parties to modify their business practices
- All parties to conduct business in a new and visibly different way
- All parties to provide a mechanism and process for collaboration to occur

There are three important types of collaboration: vertical, horizontal, and full. Descriptions of these are included here:

- *Vertical collaboration* refers to collaboration typically among buyers and sellers in the supply chain. This refers to the traditional linkages between firms in the supply chain such as retailers, distributors, manufacturers, and parts and materials suppliers. Transactions between buyers and sellers are automated, and efficiencies can be significantly improved. Companies can share plans and provide mutual visibility that causes them to change behavior. A contemporary example of vertical collaboration is collaborative planning, forecasting, and replenishment (CPFR), an approach that helps buyers and sellers to better align supply and demand by directly sharing critical information such as sales forecasts.

- *Horizontal collaboration* refers to a relationship that is buyer to buyer and/or seller to seller, and in some cases even between competitors. Essentially, this type of collaboration refers to business arrangements between firms that have *parallel* or cooperating positions in the logistics or supply chain process. Horizontal collaboration can help find and eliminate *hidden* costs in the supply chain that everyone pays for by allowing joint product design, sourcing, manufacturing, and logistics.

- *Full collaboration* is the dynamic combination of both vertical and horizontal collaboration. Only with full collaboration do dramatic efficiency gains begin to occur. With full collaboration, it is intended that benefits accrue to all members of the collaboration. The development of agreed-upon methods of sharing gains and losses is essential to the success of the collaboration.

Dell Computer: Supply Chain Excellence*

In the high-tech universe, Dell Computer Corp. is a force of nature. In less than 20 years, company founder Michael S. Dell built a $25 billion company, besting the likes of IBM, Hewlett-Packard, and Compaq Computer in the process. Along the way, his build-to-order model has blossomed into a new manufacturing paradigm. Impressively, the Austin (Tex.) company also has weathered the technology meltdown. Rival Gateway Inc. has posted consecutive quarterly losses, and Hewlett-Packard Co. has eliminated over 3,000 management jobs. Outside the PC sector, things are worse: Cisco Systems Inc. eliminated up to 8,500 jobs after writing off $2.5 billion in unsold inventory.

What insulates Dell from these troubles? The difference comes from Dell's super-efficient supply chain. Dell focuses relentlessly on driving low-cost material from the supplier through the supply chain to our customers. The low-cost producer will be the ultimate winner, and that's reflected in Dell's steadily rising market share. They are the top PC producer.

Dell's success is based upon the efficiency of its supply chain. Materials costs account for about 74% of its revenues. They spend over $20 billion on materials. Shaving a 0.1% off that cost can have a bigger impact than improving manufacturing productivity by 10%.

Dell is known for operating lean. They carry about five days' worth of inventory. Their competitors carry 30, 45, or even 90 days' worth of inventory. This is critical because of the PC industry. Prices fall by about 1% per week. So if a competitor has four weeks' worth of inventory and Dell has one week of inventory, then Dell may have a 3% cost advantage. This can mean a 2% to 3% advantage on the bottom line to Dell.

Dell schedules every line in every factory around the world every two hours – they usually only bring into the factory two hours' worth of materials. Typically, they run a factory with about five or six hours' worth of inventory on hand, including work in progress. This decreased the cycle time at factories and reduced storage space. Dell replaced this space with more manufacturing lines. It takes a tightly knit supplier base to deliver on such a schedule. Their top 30 suppliers represent about 75% of their total costs. Add in the next 20, and that represents about 95%. They deal with all of their top 50 suppliers daily, and some many times a day.

They monitor practically every part, every day. If they are running out of a part, it might be because demand is outstripping supply. They try to solve the supply problem first. They may call the supplier to see if they can increase the next shipment. If it's a generic part – like a hard drive, they may check alternate suppliers. Once they have exhausted their supply options, they go to the sales and marketing group to help shift the demand to something else. This all happens within a few hours.

* Based upon "How Dell keeps from Stumbling", *BusinessWeek*, May 14, 2001.

Dell interacts with 10,000-plus customers every day. That gives them10,000 opportunities to balance supply and demand. If they are running out of a part, then they know ahead of time. They can communicate with the sales department and move demand to items that they have.

They can alter lead times. For example, they may extend the lead time on a high-demand item from the standard 4 to 5 days to 10. In this case, they know statistically how much demand will move. They may do a promotion. If they are short on Sony 17-inch monitors, they might offer a 19-inch model at a lower price, or even at the 17-inch price. They can alter pricing and product mixes in real time via Dell.com. Their competitors that are building to sell through retail channels cannot do that.

Perpetual balance of supply and demand is their main goal. If they are in perpetual balance, they can always meet customers' delivery expectations. It also helps to minimize excess and obsolete inventory. Dell writes off between 0.05% and 0.1% of total material costs in excess and obsolete inventory – that's about $21 million across their global business in a year. In other industries, that figure is probably 4% to 5%. Their competitors probably have to write off 2% to 3% worth of excess and obsolete inventory.

They coordinate their suppliers via the internet. All of the data goes back and forth on the Internet. From the long-term planning data (volume expectations over the next 4 to 12 weeks) to the two-hour execution systems, which are making automatic requests for replenishment, every supplier can view order information via the Web.

Their goal is to get suppliers to connect their machines to Dell's machines to eliminate manual intervention to get the data. Their goal is to replace inventory with information. The more information they get to their suppliers quickly, the faster they build the product, the faster they receive materials from suppliers, the faster they alleviate a problem.

DoD versus Private Industry

There appears to be a high level of interest in the Department of Defense in embracing many of the innovative best practices in supply chain management being utilized by the private sector. The Army, for example, has initiated a program called Velocity Management to decrease lead times and lower inventory requirements. The Marine Corps has established an Integrated Logistics Capability Office to study and implement best practices. The Marines are in the final stages of defining their business processes which will ultimately allow sharing information from OEM to the Using Unit. To achieve this objective, the Marine Corps will require a new operational architecture which they hope to implement in the near future.

One of the keys to change is education. Various parts of DoD including DLA, the Marines, the Army and the Navy are investing in educating their personnel about industry's best practices. This effort is being directed at both active duty logisticians and senior civilian employees. These educational programs teach and demonstrate best

practices across the entire spectrum of logistics and supply chain education – information technology, performance measurement, inventory management, collaboration, strategic purchasing, etc. The heightened awareness of industry best practices should have a major impact on implementing change.

The Department of Defense has some unique challenges when compared to a private sector company. DoD supply chains are very complex. For example, the Defense Supply Center in Columbus, Ohio (DSCC) manages 1.8 million unique inventory items (nsn's) for distribution compared to the typical Home Depot store which has 70,000 to 75,000 items. DSCC has 22,000 customers of which 450 (about 2% account for 80% of their sales. They receive 3.2 million requisitions a year with an average value of $185 per order and 75% of the requisitions are under $100. These small, low value orders present a special challenge to efficiency.

The 1.8 million items of inventory at DSCC have a value of over $3 billion. About one-third (600,000) of the inventory items are obsolete or discontinued items. However, they must be maintained for aging weapon systems. For example, the Minuteman Peacekeeper ICBM's are 30-40 years old but inventory items to support this system must be maintained. As demand goes down, lead times go up and some suppliers are not even in existence any more or have problems supplying the parts.

The Department of Defense is challenged by its annual budgeting system and various government regulations regarding acquisition and contracts. So in addition to the inherent complexity, there are barriers to the flexibility often enjoyed in private industry. However, there is opportunity for improvement.

The Military Services need to improve their transparency of supply and maintenance information. At present, there is very little information sharing between the using unit and supporting unit. As the private sector has learned – information is power for improved efficiency and effectiveness. As indicated in the description of WalMart, information can be a substitute or trade-off for inventory. Information reduces uncertainty which in turn reduces the need for safety stock which is often a major component of inflated inventory levels.

Inventory visibility is a missing ingredient in many parts of DoD. Inventory is difficult to track and trace which often leads to having too much of the wrong types of inventory (low demand or obsolete) and not enough of the right type (high demand). Inventory visibility and information transparency have contributed significantly to the successful supply chains in the private sector.

Another area for improvement is horizontal sharing of information and integration across the Military Services. Within a particular service, there are frequently "functional stovepipes" which contribute to inefficiency and reduce effectiveness. For example, acquisition, supply, logistics, distribution and transportation may be acting independently and suboptimizing the overall performance. In fairness, it should be pointed out that

some private sector companies have similar problems or shortcomings. However, there is much opportunity to eliminate the stovepipes and resolve the turf issues.

Process definition and software integration can play a major role in resolving the issues identified above. Efforts are under way in various parts of DoD to move in this direction. The DoD supply chains are complex which makes the process mapping and definition a challenge. However, a bigger challenge is the technology integration. There are so many old, obsolete legacy systems in DoD that it almost defies integration. However, significant initiatives appears to be underway using ERP systems and related software to move aggressively ahead on system integration.

Summary

The 1990s was a decade of great change for private and public organizations. There were major external forces driving this change including an "empowered" consumer, wholesaler and retailer consolidation, deregulation, globalization and technology development. The more intensely competitive marketplace led private companies to aggressively look for methods and approaches to improve their efficiency while also becoming more effective in serving their customers.

Supply chain management has developed as a significant approach for such efficiencies and improved effectiveness. Reduced cycle times, more efficient asset utilization (inventory, facilities and equipment), collaboration among supply chain members, effective use of technology, etc. were all outcomes of the supply chain management strategies that private sector companies put in place to drive lower costs and better customer service.

The Department of Defense has embraced many of the supply chain concepts, and some organizations within DoD have moved ahead aggressively with educational and implementation programs to take advantage of what the private sector has developed. However, there is still much opportunity for improvement.

Mr. SHAYS. Dr. Coyle, I'm going to call on Mr. Kucinich. I'll just make this observation, though, to set the stage here. There is basically no part of the DOD budget that is auditable, to start with. And if it was a private business, it would be not in compliance with the law.

Mr. COYLE. Correct.

Mr. SHAYS. And we all know that here. And Ms. Schakowsky has pointed out this is not the first hearing, or the second, or even the third hearing we've had, and others that she's been involved in.

We also know that when you have inventory control you prevent waste, you prevent fraud, and also you don't have to have as much inventory because you can move it to different places where you need it, if you know where it is.

Mr. COYLE. Correct.

Mr. SHAYS. But if every unit has to have a maximum—and so one of the things I hope you will add to this is, given the extraordinary failure of DOD over many, many, many years, over different administrations, to get this—a handle on this, is it possible? And Mr. Kucinich—and I think the answer is yes, but it just strikes me that you begin to wonder.

Mr. Kucinich, you have 10 minutes. I'll go to Mr. Lewis and then, Ms. Schakowsky, you'll have 10 minutes as well.

Mr. KUCINICH. Thank you very much, Mr. Chairman.

Mr. Kutz, I want to go back to some basic numbers here. These suits and the ones that are vacuum-packed are the ones that are JLIST, is that right?

Mr. KUTZ. Yes.

Mr. KUCINICH. OK. These suits sell for $200 each.

Mr. KUTZ. For a set. A coat and a trousers is a little over $200. That's what they're buying them for.

Mr. KUCINICH. According to your testimony, by the end of fiscal year 2001, the Department of Defense had procured 1.6 million.

Mr. KUTZ. That's correct.

Mr. KUCINICH. Let's do the math; times $200 is $320 million.

Mr. KUTZ. Correct.

Mr. KUCINICH. So we're not talking about a small contract here. This is a $320 million contract. Now, of the 1.6 million that have been procured, how many can—how many have been sold? How many of this JLIST lot have been sold? Do we know? On the Internet or anywhere?

Mr. KUTZ. That we're aware of—and, again, we are only aware of the information we were able to get from the Department—429 have been sold, although as Mr. Ryan said, they have not been released yet. There were 1,934 that had been excessed.

Mr. KUCINICH. How do you know that?

Mr. KUTZ. That's based on their records. We actually went out to Hawaii. We sent one of our staff from Los Angeles to Hawaii. They counted the 429. So we're certain of those. The amount that were disposed of, the 917 that were disposed of, that is based on their records. We would not be able to tell you whether that's right or not. We can tell you there were 429 that were sold, and we saw most of those.

Mr. KUCINICH. Of the 1.6 million that were procured, you've only been able to focus on just a little more than 1,000. Do you know

where these are? Can you give me a categorical breakdown on where these suits are?

Mr. KUTZ. As of September 30, 2001, 400,000 would have been in the three DLA warehouses, and the other 1.2 million would have been distributed to the military services. And I don't recall the data as to which service got how much. There were preallocations of the suits. But the 1.2 million have been distributed to the services.

Mr. KUCINICH. And it's your testimony, though, that you really don't know where they're located.

Mr. KUTZ. We don't believe the Department could pull together the visibility information as to where they're all located, yes.

Mr. KUCINICH. So is it possible that some of those could have been sold?

Mr. KUTZ. That's plausible.

Mr. KUCINICH. Is it plausible that thousands of these could have been sold, is that possible?

Mr. KUTZ. Yes, that's possible. Again, there's 1.2 million out there at the units. Again, when we went through, in some of the examples there was human error here also. In the two locations we visited in Hawaii, the people looked in the warehouse and said, these things have been sitting here for 2 or 3 years, did anybody on the base need them? No, nobody said they needed them, and they got rid of them. So it was just simple human error there as to what these were and what they were to be used for, because they didn't have an inventory system that said—that had anything. It was just some boxes in a corner of a warehouse, and they were trying to clean out that part of the warehouse.

Mr. KUCINICH. Let's say that there was an immediate need for these suits. How would anyone know how to get them?

Mr. KUTZ. That would be our biggest concern, is if there was immediate need to know where the—if something happened in some part of the world and they needed to call up and move these from one location to another, it would be very, very difficult for them to do a lot manual intervention, data calls.

Mr. KUCINICH. How long did you take to find out that you didn't know where they were?

Mr. KUTZ. I'm not sure I understand the question.

Mr. KUCINICH. How long did it take you to make a determination that you couldn't trace these? How much time had you put in when you finally arrived at the conclusion we can't find these?

Mr. WARREN. That we knew pretty quickly. In other words, we knew that the only comprehensive data system was at the DLA warehouse system. Once the items left the DLA warehouse system and went to the services, we knew that there were not existing data systems that would track them on a routine basis. So that was apparent pretty quickly that our——

Mr. KUCINICH. OK, so you can't—we're still back to about 1.2 million.

Mr. WARREN. Yes, sir.

Mr. KUCINICH. That you can't really say where they are.

Mr. WARREN. Correct. We knew that pretty quickly, and by that we knew that our initial recommendation had not been implemented in any way.

Mr. KUCINICH. Are you aware of any system—any of you gentlemen aware of any system which the Department of Defense has that they can, if they needed 1.2 million suits immediately, they could put out a call and say, check your closets or the garages or whatever for these suits? I mean, is there any way that they can——

Mr. SMITH. Other than doing a basic data call, there is no automated system that would be able to tell you today where the 1.2 million suits are located at. They would have to do a worldwide data call, the same as they did when they tried to recall defective BDOs. Again, the accuracy of that data call has proven it is not accurate. So the answer basically would be no. They do not know where they're located at.

Mr. KUCINICH. So we really don't have the ability to—what you've shown in this one case is that you really don't have the ability to track this all the way. You know, this whole hearing was about tracking a single item. You're saying there's a point at which you just can't track it.

Mr. SMITH. That's true. At the unit level. The other thing I'd like to clarify is that in the hearing 2 years ago, the DOD IG even raised concerns about the DLA system which controls the 400,000. So there's some question raised about that. The DOD IG said that system is chronically inaccurate. So it is questionable even for that system if that information is correct.

So, again, throughout the entire chain, as shown on the board, there is no visibility over all these suits. No one can tell you today where the 1.6 million suits are located with any degree of assurance that they would be able to pull them all to a single location and redistribute them.

Mr. KUCINICH. Let's go back to the beginning. Why were these ordered in the first place? Why would you need this kind of protective gear? Why do soldiers need this? Anybody.

Mr. KUTZ. To protect them in a contaminated battlefield environment.

Mr. KUCINICH. Chemical or biological?

Mr. KUTZ. Either.

Mr. SMITH. Both.

Mr. KUCINICH. What kind of protection would this give the men and women?

Mr. SMITH. It is supposed to be able to protect them today against all known chemical and biological weaponry that could be used upon them.

Mr. KUTZ. And provide them the flexibility to do their job with minimal—the older suits were more bulky and less flexible and were hot, apparently, in certain environments. These apparently are more comfortable for the soldier to wear.

Mr. KUCINICH. This is a $320 million contract. Where were these made?

Mr. SMITH. Actually it's a $1 billion contract.

Mr. KUCINICH. It's $1 billion contract?

Mr. SMITH. It's $1 billion, which includes a surcharge that is paid to DLA for the storage and administration of the contracts. So the number you used before, that was just for the suits that had been purchased. But the total contract is $1 billion.

Mr. KUCINICH. OK, a $1 billion contract; who was it awarded to?

Mr. SMITH. The suits is being made by five different companies. So it is spread out through those five companies, and there's different pieces of the suits that are also bought; kind of raw materials, the outer shell, the liner, they are bought. So different companies are involved in the process.

Mr. KUCINICH. Where are the companies located?

Mr. SMITH. They're all located—the liner company is from Luscher. The rest of the companies are here in the United States.

Mr. KUCINICH. Where is the liner?

Mr. KUTZ. Luscher, in Germany.

Mr. KUCINICH. I looked at the tag in here, and it says National Center for Employment of the Disabled. What is that about?

Mr. SMITH. That's one of the manufacturers of the suit.

Mr. KUCINICH. OK. What does that particular manufacturer do? Is that, you know, is that somebody—obviously is that a government agency that—why is it called the National Center for Employment of the Disabled?

Mr. SMITH. That is one of the manufacturers. It's the way the contract——

Mr. KUCINICH. Is that a charitable organization?

Mr. SMITH. It's not charitable. But there's different procurements that it has to go through, and there's different options that this has to be offered to different organizations through the DOD process. I think that gets back to what Dr. Coyle said about different regulations, different requirements fall upon DOD than you would have in the private sector.

Mr. KUCINICH. I understand that. I think it's wonderful to hire the disabled, but I'm wondering how the National Center for Employment of the Disabled is part of a $1 billion contract to make these suits that is the subject of these hearings. I'm just wondering, could you tell me a little bit about that? I think it's a wonderful idea to hire the disabled. Is this a U.S. Government operation or is this a private for-profit?

Mr. SMITH. It's an organization—we went to the one down in Tennessee. That's part of the contract. It's the way it's set up. It is a U.S. entity that is not—it's not U.S. Government, it's a private entity.

Mr. KUCINICH. Is it a profit, nonprofit? Sounds like a nonprofit, doesn't it?

Mr. SMITH. That I am not sure of.

Mr. KUCINICH. The difference is, if it's nonprofit, there's one price. How would—this relates to price, Mr. Chairman. They're charging 200 bucks for these, and Ms. Schakowsky raised a great question because she said, you know, if they're selling them for $3 on the Internet, are they really worth $200 to begin with? If these are being made by people who are disabled, how much are they being paid? These are issues that are real here. Are the disabled people really getting a benefit out of this, or is somebody, you know, hiring people who are disabled and paying them minimum wage and then charging the government as though the wage component was, you know, $120 or $200. I think that's a fair question.

Mr. KUTZ. We did not get into that. Let me mention one reason why these might have been selling for $3 is there was again some

human error. At one of the locations, the individual at the Naval Ordnance Disposal Unit in Hawaii—and the one I held up earlier that was not a training-only, but was a good unit, they actually had marked it when they sent to the DRMO to be excessed as E, because they thought it was in excellent condition. Well, E actually means that the items are damaged. So it may very well be that the purchaser thought that these items were damaged and therefore they may have been bidding less money on these.

Mr. SHAYS. If the record would note, we have requirements on DOD to hire a certain number of disabled, and Native Americans I think are involved in the making of some of these suits as well. I don't know if that's the real focus of this hearing right now. But we do increase the cost to the government sometimes in some of our hiring practices, but we also want these to be made by U.S. citizens, for security reasons as well. So there are a lot of factors involved that I'd love us to address sometime, but I hope we stay on the focus of the inventory, how it's being handled, whether we can improve it.

And one of the questions Mr. Kucinich clearly pointed out is, we simply—we don't know if a lot more of these suits weren't sold.

Mr. Coyle, as you hear this as well, I would think your mind would be going clickety-click-click, click here—maybe I'll get my chance. But I want us to invite all the witnesses here to respond. And, Mr. Lewis, you've got the floor.

Mr. LEWIS. Thank you again, Mr. Chairman. The Department of Defense, do they have an ongoing inventory process for the different departments and agencies within the Department of Defense? Is there a requirement that they have at least a biannual inventory count?

Mr. WARREN. They're continually looking at the inventory that they have under their control. There are requirements for physical counts for control and financial accounting purposes. There are also requirements—perhaps this would be helpful to the other questions—there are also requirements as they look at the inventory that they have under their control at the various units, if it is declared excess to their needs, rather than carrying the carrying cost of holding onto those items, they are required to put it into the disposal process which we are talking about today.

And that can move through various phases. It can be redistributed to other units, which you would have hoped would have happened here, but did not. It can be distributed to other Federal agencies. And it can be distributed to voluntary agencies.

Once it goes through that type of priority regime, then it moves into the sale process which we have discussed this morning. Over time, over history, what happens to items that are then declared what they call surplus—no longer to the need of the Federal Government—typically have sold for 2 cents on the dollar. So it is not unusual that these items sold at this very low price under the typical Department of Defense disposal process.

Mr. LEWIS. Is there a central data bank that you can look to see where any specific inventory items would be at any given time?

Mr. WARREN. It varies, obviously, from service to service. The Department of Defense operates a largely decentralized management process for its inventory management processes. Some items,

sensitive items for example, are controlled in a much better manner; firearms for example, sensitive missiles, in a much better manner than other items. Clearly this item that we're talking about today is not controlled in that manner. The systems typically do not talk to one other, particularly across services, if there was an opportunity to share assets. And that has particularly been a problem.

So when they did the Y2K exercise, for example, to try and correct that issue, the Department identified over 1,000 individual logistics management systems across the Department of Defense. So that gives you again an idea of the proliferation of logistics management systems that exist today.

Mr. KUTZ. Representative Lewis, one thing I was going to mention, of the 1,934 suits that have been excessed, we did identify that 275 were reutilized, which means they went back to the government system. We did find, for example, that 200 of them went to the Marine's First Tank Battalion. So some of these did get back into the DOD system when they were, I think, put up on the DRMO site that others can go in and look at. So some of these did get back into the system. How the other ones got through without going through that process is not completely clear.

Mr. LEWIS. Dr. Coyle, how difficult do you think it will be to put in place an efficient supply management system that, you know—that could be as accountable to the inventory as a Wal-Mart or Sears or some of these other large companies?

Mr. COYLE. As I tried to suggest in my comments before, it would be very challenging because of the complexity. There are so many different items of inventory, NSNs as the military refer to them.

Just to give you an example, we were working with the Defense Supply Center in Columbus. They were handling 1.8 million unique items of inventory, 1.8 million unique items or NSNs. You go to a very large store, Home Depot, for example, the typical location for them would have 70,000. So you've got a tremendous level of complexity. The Defense Supply Center, they had 22,000 customers but 450 of them had accounted for over 80 percent of their sales. So they have some challenges.

However, as was suggested here by several other people, it is possible to make, I think, tremendous—or to make significant changes. Information, obviously, is very, very important. But in addition to having reliable information, you have to have timely information. And that requires that the systems interface with each other.

The biggest challenge that I saw, as I looked as I did some work with the Marines a couple years ago, is that if you look at their operating architecture, it's like a spaghetti bowl. They have all these different systems that don't interact with each other. Some are archaic, some are obsolete. They have some real challenges in trying to keep track of inventory, get that kind of visibility you want. But it is possible. It's going to be more challenging than any single corporation that I know of to be able to do that.

Mr. LEWIS. It seems to me like with the technology we have today, that there's no excuse for using pencil and paper and blackboards. You know, there's got to be, and there is, a better way to deal with some of these.

Mr. COYLE. There's no question—you can look, you can visit almost any large corporation today, as some of these gentlemen at the table have, I'm sure, and I have myself, and you'll see lots of different ways of companies that are doing that. There are different kinds of technology, but there's a lot of similarity across those organizations as to what they've done.

There have been mistakes made—you've read about them in newspapers—with different corporations. But underlying all this, you know, the suggestion about what technology can do—you really have to make sure that you change the processes. You got to reengineer. Because if you throw technology at the problem, it doesn't solve the problem.

Every company I've ever worked with that have tried to throw technology at the problem have ended up costing themselves a lot of money. They got to start basic with the processes. You talk to—somebody mentioned Sears here at this table. Sears Senior Vice President for Supply Chain Management, a 30-year career Army officer, is a 3-star general, retired from the Army after 30 years, and went to Sears. He's revolutionized the way Sears does their logistics and their supply chain. Obviously, he didn't just bring the Army techniques with him, but some of them. He's looked at, you know, what's going on, what's possible, and, you know, has made a lot of changes. There are some bright people in the military services, I think, that given the proper support can make some appropriate changes.

Mr. LEWIS. Absolutely. I agree.

Mr. SHAYS. Would the gentleman yield for a second on his time? I mean, this is intriguing to me, because you're saying we have—I was wondering if we simply aren't hiring the best and the brightest in the military, and therefore the private sector does it. But there is a reason why he didn't—was he not empowered in Defense to do this?

Mr. COYLE. It was interesting, in the Persian Gulf War he was the chief logistics person in the Persian Gulf War. And, you know, given the technology that was at his disposal at the time, and the processes that were in place, you know, a lot of good things happened in preparation for that effort. But there have been some criticisms about the buildup, the so-called bull-whip effect in the inventory that you had before the Persian Gulf War, but I think that was attributable to the lack of information.

And you keep referring to inventory visibility. I couldn't agree more. That's a critical ingredient for success.

Mr. SHAYS. What this raises, in my judgment, is something I hadn't thought about until you just made the point. I mean, I basically felt it was people without the expertise or ability, paid a salary that didn't enable them to, you know, get the kind of—that the expertise that they needed—in a system that was bad, just teaching them bad process and reinforcing it.

And yet I've known for years that DOD is one of the best educators. They take someone, and value added when they get these young men and women is significant. And what I'm wondering is, is maybe DOD doesn't have the ability to recognize these people, to put them in the forefront where they get to make the decisions. And so, you know, obviously they had them in the Gulf War, but

you've got a major company that has benefited tremendously from it.

Mr. COYLE. From his experience and what he learned during his educational processes before he joined the Army or went in the Army, and what he learned afterwards, I agree, there are a lot of very bright people there. I think some of them are frustrated by the lack of opportunity for them to make changes they see.

It goes back to something I didn't mention in my presentation that probably someone else has already suggested, that performance measurement is a critical ingredient for change. And rewarding, you know, appropriate performance measurement, I'm not sure that the metrics, if you will, the performance measurements that we have in place drive the type of change that you want to achieve.

Mr. SHAYS. Doctor, when I have you for my questions, I'm going to say "doctor, doctor, doctor, "because I just called you "mister, mister, mister," a few times here.

Mr. COYLE. I can tell you a funny story about that sometime, and I will.

Mr. SHAYS. It would be fun to hear something funny that doesn't cost us so much. But we have had too many hearings, and I almost found myself saying to my staff I don't want another hearing on this. Then I realized I'm guilty of the same thing DOD is. They've ignored this issue for years in not succeeding, and we have to win. And I want to know how we win ultimately.

I have a good friend who works in organizations whose strategy is this: difficult, impossible, done. I'd like to think that's part of the military way of getting things to happen. But we have failed miserably for decades in this area. And I'm sorry my time is up—or Mr. Lewis' time is up. Is it Mr. Tierney or Ms. Schakowsky?

Ms. SCHAKOWSKY. Thank you, Mr. Chairman.

Dr. Coyle, you talked about horizontal and vertical coordination, and then you talked about performance—measuring performance. I've concluded that we have to start talking about the culture at the Department of Defense because we clearly have a Department where there are no consequences to sloppiness. It is a culture of sloppiness. That's the only thing that I can conclude. And nothing happens to somebody. OK, so we lost 250,000 possibly defective suits, and we can't track 1.2 million new suits, and we auctioned them for $3. Nothing happens to people. Or, on the purchase cards, we had a whole hearing in the other subcommittee on purchase cards. Little to nothing happens to people who misuse them. So there are absolutely no consequences. DOD keeps failing audits, we keep passing higher and higher budgets. Nothing happens over and over again.

Wouldn't you say that there have to be some—there has to be some consequence, somebody has to pay, some accountability, some punishment, something has to happen?

Mr. COYLE. Sure. I think you put your finger on a very important aspect of it, and culture is important in any organization. And the culture has to support change, the culture has to support doing things a better way, driving for efficiency. But also underlying that, there have to be appropriate performance measurements in place so that good performance is rewarded and bad performance is penalized.

And I think what you're suggesting—and you obviously know more about this than I do—is that bad performance is not penalized. If this happened in the private sector, as you well know, you'd be reading about it tomorrow in the Wall Street Journal, and someone might be even investigated with a civil suit and going to jail, as several people who are being investigated at the present time. So performance measurement I don't think is appropriate to stop some of those things from happening.

Ms. SCHAKOWSKY. Mr. Kutz, you said that you found some units used pen and paper and dry erase boards. So what happens if that information gets erased? Is there any back-up, is there any way to follow that up, or is it just gone?

Mr. KUTZ. I would think it would be gone. And there were some units that we looked at that had no records of these. They received their shipments and they did not keep track. So, yes, that would be gone.

Ms. SCHAKOWSKY. So it's like we're living in the middle ages in some of these places that we can't even keep a record of them. I wanted to get back a little bit to what Mr. Kucinich was saying, and just suggest that while we didn't look at in this study the issue of the products themselves and their cost, Mr. Kutz, you had mentioned at one point that you're starting to look into issues of vendor fraud. This isn't particularly related to purchase cards. I'm wondering if that is proceeding and that would be worthwhile, you think, to look at as well?

Mr. KUTZ. We're looking at that, at the credit card issues. We have not—I don't think we have any current studies underway right now of that Department-wide. But there's a lot of bigger bucks out there than the credit cards. So certainly with respect to contract payment and vendor payment, there's a lot of risk of fraud at the Department of Defense, and there has been a lot of fraud identified over the years.

Ms. SCHAKOWSKY. Let me finally say that while there don't seem to be any consequences for people at the Department of Defense, regardless of what kind of waste, fraud, and abuse there may be, the consequences—as has been repeatedly pointed out over and over—the consequences are so grave here in terms of it's life and death that we're really talking about here, as well as billions and billions of dollars.

And so I just think, and I agree with you, Mr. Chairman, you feel like oh, no, not another hearing. Well, maybe we do need to think of something else besides continuing a hearing. I believe that the American people—if this room were filled with cameras, and there were lots—would be as outraged about this as they get about Enron or anybody else. This is scandalous. And there has to be some way to put a stop to this.

I appreciate that you continue to shine the light, and we ought to think about how we can now get some sort of results. Thank you very much.

Mr. SHAYS. Thank you very much.

Mr. Tierney. You don't know where to begin, do you?

Mr. TIERNEY. Yeah, I know where to begin. I'm all for rewarding people that do well, but in this situation I'd like to lop a few heads, frankly.

Is there a way, Mr. Kutz, that we can get a chart of, besides the Secretary of Defense being responsible, who under them is responsible for this mess, right on down the line to the very bottom and their rank; because I'm willing to bet there's all sorts of stars and badges and stripes on these people who continually mess up, and they continue to get promoted.

I disagree with Ms. Schakowsky. What happens is they get promoted. It's not that nothing happens to them; they get promoted by longevity, being in there. In the private industry they get stock options, and in the military they get promotions.

So is there a chart that we can have that would show us the responsibility of who under the Secretary, and who under that person, all the way down the line is responsible for this mess so we can put a rank and a name to these people?

Mr. KUTZ. It is hard to put a finger on who is responsible here. That is one of the issues. Because you've got the services responsible, you've got DLA responsible, you've got the program office responsible. I think when DOD witnesses come up, you can certainly talk to them about who they believe is really responsible. But maybe that is one of issues here, is that no one individual is responsible.

Mr. TIERNEY. Suppose we ask the DOD to give us their idea of who's responsible; can you also give us your idea, having gone through this, of who you think is responsible so we can compare the two? Would you do that for us?

Mr. KUTZ. Sure.

Mr. TIERNEY. If this was a hearing about lost erasers and pencils in the Education Department, every damn member of the press from around the country would be in here, banging around and putting out stories about it. But because it's the military, they're all napping at home and letting this go on. It's just a disgrace it happens.

Let me ask you this. Is there a reasonable timeframe, Dr. Coyle, that we might expect somebody to implement the best possible system to correct this situation?

Mr. COYLE. As was suggested here a little bit earlier at the table, I think you're talking about a time horizon of 3 to 4 years to implement something like that.

Mr. TIERNEY. You know, Mr. Chairman, what I think we ought to do is talk about cutting this budget by $18 billion in 3 or 4 years, and the way they can save it is by doing better; and if they don't, then they've got to find some way to make it up. Because the longer there are no consequences and the longer nothing happens, you know—where, Mr. Kutz, would we cut? Where would we take that $18 billion, from what line items?

Mr. KUTZ. One of the things we talked about—I don't know about cutting—but one of the things we talked about at the last hearing was some sort of way to control the IT money. I mentioned earlier that the IT money is being shelled out all over the place within the Department, and that's how you get the proliferation of systems and everybody building their own systems.

One thing that the Congress could do, which has been done at a place like IRS, is to try to centralize that funding and get control over it. Again I mentioned at the last hearing we had that there's

$26 billion in the budget for investment technology, which includes weapons system type.

Mr. TIERNEY. Twenty-six.

Mr. KUTZ. $26 billion, which includes business systems and weapons systems, both of that in there.

Mr. TIERNEY. Can we separate out those amounts?

Mr. KUTZ. We do not know the actual components. We're looking at that right now. There's a report this big that outlines the pieces, but certainly billions and billions of that are for business system.

Mr. TIERNEY. There wouldn't be any chance you would have that ready by the time we're doing the appropriation process, would it?

Mr. KUTZ. We can try.

Mr. TIERNEY. The appropriation process might be this week.

Mr. KUTZ. Yes. I mean, we have the documents and we can try to give you at least a first cut at what we think the pieces are.

Mr. TIERNEY. I don't know what your disposition is on this. It seems to me it would be responsible for to us identify how much of that IT system is, and put a motion to centralize it and begin this process of putting some control on it. I'd like to work with you and Members on that side of the aisle to do that just so we get some sort of control over it.

Mr. SHAYS. Would the gentleman yield? As we were conducting this hearing, I was just writing the e-mail to my staff to see if we could prepare some type of amendment to highlight the failure to be able to audit, but particularly taking this part of it which is the inventory, and seeing if we could come in with an amendment that would kind of wake up our colleagues on that.

Mr. TIERNEY. If I could just reclaim my time, in addition to like concentrate on what Mr. Kutz just said, maybe working with Mr. Kutz, identify that number and the proper language that would allow us to centralize and get control over that IT system, so that going forward here we can start, hopefully.

Mr. KUTZ. We could certainly share with you the language that's been used for the Internal Revenue Service, the Customs Service, and others where that's been done.

Mr. SHAYS. Let me just say that's an excellent idea. It would be nice to make it a bipartisan amendment. And I think that the sooner you can get it to us, the better; because we are going to deal with both the construction budget and the defense appropriations.

Mr. TIERNEY. I just think that would—we've got to start doing something constructive out of here instead of just complaining about it. It may seem punitive or whatever, but I think we're at the point where we should get a little punitive here. But we've got to find a way that doesn't affect our ability for national security, but at the same time wakes these people up and maybe stops a few stars from being put on people's shoulders, and we can look to who to reward if they're doing a particularly good job, or why they're not finding people with this kind of—let me also ask, would it make sense to Dr. Coyle to have an advisory group, for the Secretary of Defense, of industry and academic people who are really well informed on IT and processes such as this, to work with them on this, identify it? Or do we have that capability within the military now?

Mr. COYLE. If you get the right group of people, I think that would be fine. The problem sometimes is that retirees like myself are appointed to those advisory groups, and some of them aren't always up to date on the most modern technology. So getting the right people in place is a challenge.

But I just want to emphasize again, the military has some very bright people in at the present time. I've been impressed with the quality of some of those folks and the education they have. I think given an opportunity to work together, they could drive toward some solutions.

Mr. TIERNEY. My thought is those advisory group might help us identify those people and why they're not getting the chance to make the impact they could, and separate them from the chaff who are apparently in the way, and move that forward.

We ask people to step up to national emergencies all the time. You know it's a disgrace, with some of the corporate activities we see of going offshore, avoiding taxes and things of that nature. But there are enough good people out there that if we ask them to step forward and dedicate some of their people to a cause like this, I think they'll respond.

Mr. Chairman, I don't know that it would be something the President or Secretary would have to do, but perhaps we could make a recommendation to them, or resolution, or something on that basis, identifying the problem and telling them that the Congress, or at least this committee, is behind them; finding those kind of people and empowering them to make those kind of suggestions, so that we don't just keeping banging around inside the same barrel all the time. Maybe there are some things that will come out of this today.

So just let me, to recount, Mr. Kutz, you're going to try to work for us who you think is in charge of this thing all the way, top to bottom. Mr. Chairman, I suspect we'll ask DOD when they're in, who they think it is. We'll make some comparisons. You're also going to work with us, Mr. Kutz, on some of the language and focusing on the amount that's IT money out of that, so we can put something together in centralizing that aspect of it there.

And you know, Dr. Coyle, if you had any recommendations about the people who are up to date, retired or not, who might serve as sort of an advisory committee, if you would share that list and start down that path at least.

Mr. COYLE. I'd be happy to do that.

Mr. TIERNEY. Thank you all very much for your testimony today. I yield back.

Mr. SHAYS. Thank the gentleman. We're going to go to our next panel. I just have a few questions. I want to be clear, Dr. Coyle, what you would do if you had been a Member of Congress for 20 years and you had sat in on a hearing like what we've sat in on, and really there is no change in the story for the last—and there's been a lot of efforts. I'd want to know what you would be doing, both as a Member of Congress, but someone who has the authority to make a difference, what would you be doing?

Mr. COYLE. I would try to look at some of the root causes that make these outcomes come about. Are these problems being caused, for example, as was mentioned by one of the members of the panel,

by the regulations that you have in place in procurement—that are very strict regulations about that—that in effect preclude some of the types of strategic acquisition practices that are going on in the private sector that allow a company like Dell, for example, to do the kinds of things that they do, or a company like Sears to do the kinds of things that they do. Second——

Mr. SHAYS. Before you go to the next one, give me some good examples of companies. You say Dell, Sears, give me some others.

Mr. COYLE. Wal-Mart is another company. Kraft Foods is another company. Let me just see——

Mr. SHAYS. Don't just give me all your clients.

Mr. COYLE. Johnson & Johnson. I'm sorry I missed that, Mr. Chairman.

Mr. SHAYS. I was trying to be a little funny, but I——

Mr. COYLE. I missed that. I apologize.

Mr. SHAYS. I said don't give me all your clients.

Mr. COYLE. These are not clients of mine.

Mr. SHAYS. Good for you.

Mr. COYLE. They're not clients. These are names of companies that are reported by the Supply Chain Council and other groups for their outstanding supply chain.

Mr. SHAYS. So maybe we bring all of them in, you know, and have them testify.

Mr. COYLE. Possibly. There's some talented people that you could.

Mr. SHAYS. Which company is the firm that you mentioned that hired the former military?

Mr. COYLE. Sears.

Mr. SHAYS. Sears. And that gentleman's name was?

Mr. COYLE. Gus Pagonis, P-a-g-o-n-i-s.

Mr. SMITH. That is one of the gentlemen that we did talk to as part of our study. Mr. Pagonis. He is also part of a group that the Secretary of Defense has brought in from the outside to look at various entities within the Department to try to bring in some private sector expertise to look at DOD's operations to improve them. Now, we can provide for you some of the entities that they're looking at and what they're trying to accomplish.

Mr. SHAYS. Evidently we wanted him to testify, but because he is on the task force he declined. I don't know the logic of that. But then again, maybe we'll get the task force in. Then he could come.

So one is the regulations that make it difficult. Another is to look at some of the people. And from that we talked about bringing in some of those good firms. I got sidetracked. Besides regulations that make it difficult, to bring in strategic thinkers.

Mr. COYLE. Another one that I would point you to is does your budgeting process—having worked at the university for 40 years and have a year-to-year budget—when the end of the year comes around, if you have anything left in your budget, you're afraid not to spend it for fear you'll get your budget reduced next year.

Mr. SHAYS. The budget process.

Mr. COYLE. The third one that I would look at is personnel. I think, for example, in some parts of DOD, particularly in the military, people are rotated pretty quickly, every 2 years, and some-

body might start a new program and not have a chance to see it through. There's some challenges there.

Mr. SHAYS. Well, it's interesting, because my staff was just mentioning that the IRS individual, I believe, that was hired to kind of take charge of this, there was an agreement that they would kind of transcend administrations. And we're looking at not just the issue of administrations, we're looking at the policy of rotation that gets you in and out real quick.

Mr. COYLE. I would also say, take advantage of some of the good people that are there, because there are some outstanding individuals I think there.

Mr. SHAYS. But besides looking at rotation, we look—we should look at the reward—I don't want to say reward and punishment.

Mr. COYLE. Performance measurement. Performance measurement is the term.

Mr. SHAYS. Performance measurement: Are we really identifying the people that can make a difference. You know what—what's fascinating, absolutely fascinating to me in the three things you issued: regulations.

Mr. COYLE. That's off the top of my head now.

Mr. SHAYS. This is a compliment, I think. Regulations, budget process, and personnel. You didn't mention technology. You know what? Technology is the first thing that we've always focused on. And so we all have—I mean we, the Department of Defense, when they've spoken to us we said, yes, it's technology, you need new technology. You didn't even mention it. Not that it's not important, but it tells me how important you think these other things are.

Mr. COYLE. Basic.

Mr. SHAYS. Yeah, basic.

Mr. COYLE. You can't solve a problem on technology unless you change the process.

Mr. SHAYS. OK. Well, this has been interesting. Is there any question that Mr. Kutz, any of your folks, Dr. Coyle, you want to put on the record before we go to the next panel?

Mr. WARREN. I'd just like to add to that question, one of the fundamental problems is the current organizational structure of the Department of Defense for accomplishing these business processes that have grown up over some 30 years now, and the breaking down of those processes has tremendous impact on all employees across the Department, to include civilians and military personnel, so the actual reengineering of the business processes, as Dr. Coyle was talking about, is not just coming up with better business processes, it then results in major reorganizations to the way activities are performed, which then leads to this huge cultural resistance to change. And that would have to be something that would be addressed in order to achieve what we've been discussing today. And I think that's one of the keys that's at the heart of why change does not work very well.

Mr. SHAYS. Yeah.

Mr. WARREN. It's almost like base closures.

Mr. SHAYS. I'm almost finding this frustrating in the one sense of because we spend so much time and we focus on testimony, and we've had people tell us why this didn't work because of this technology, and then when get technology it gets outdated by the time

it's implemented because of procurement processes. And, you know, technology didn't even show up in this discussion, which is wonderful, but——

Mr. COYLE. Let me add a caveat. I'm not trying to say technology isn't important. If you look at some of these companies, you find they're trying to take advantage of technology to use it to their competitive advantage.

Mr. SHAYS. You need the technology. I mean, we would——

Mr. COYLE. It's a facilitator.

Mr. SHAYS. We wouldn't have people living in cities if we didn't have air-conditioning. I realize we're not going to be able to do the things K-Mart does without the technology, but we have to look at all the other things.

Mr. KUTZ. We looked at the technology as the symptom of the problem rather than actually the root causes. The root causes we identified when we testified before were the lack of leadership, cultural resistance, etc. The technology and the 1,127 systems you've seen, to us I think would be kind of a symptom of what those root cause problems are.

Mr. SHAYS. I know you did say that. I guess my—when we had the Defense folks up, it was kind of focused on technology. So I'm not saying you guys didn't alert us, but it didn't sink in. I guess you have to tell us more than once.

Anything you want put on the record before we get underway? Dr. Coyle, you rushed to get here and your time has ended. But if you had the ability to stay, I would like to suggest that I would call you up, or any of you GAO folks, after DOD speaks to, you know, put something on the record that you may need to. So if you have the time to stay and hear the DOD folks, it would help us.

And let me say to you, we've got great people working at DOD. So this is—we just need to know how to help them.

I think we're done. Anything else, gentlemen, that you—thank you. Nothing else to put on the record? You didn't stay up all night preparing for a question we didn't ask that you want to ask yourself? Nothing? OK.

So thank you. We're going to go to our next panel.

Our next panelist is Ms. Ann Boutelle, Director, Commercial Pay Services, Defense Finance and Accounting Service, Department of Defense—these are all Department of Defense; Mr. Douglas Bryce, Program Manager, Joint Service Lightweight Integrated Suit Technology, JSLIST; and Mr. Bruce Sullivan, Director, Joint Purchase Card Program Management Office, Department of Defense.

So we have the Director of the commercial payment and then the two areas that we were looking at. And if I could get you to stay standing, I'd like to swear you in. As you know, only one we've never swore in was Senator Byrd, and that was because I chickened out.

Is there anyone else that might want to respond to a question? Any of you folks that would want to stand and be sworn in? I don't want to swear in a person once we start. So are we all set. Nobody else?

[Witnesses sworn.]

Mr. SHAYS. Thank you.

So pretty brutal stuff we're considering. I know you all are—you haven't worked in—I assume you all haven't worked in Department of Defense all your lives, and you're trying to make a difference here. We want to help you, and we're going to start with you, Ms. Boutelle, and then go to Mr. Bryce and then to Mr. Sullivan. OK? Great. And the way the clock works, it's 5 minutes, and we roll it over for another 5 minutes, and you can use part of that 5 minutes.

STATEMENTS OF JOANN BOUTELL, DIRECTOR, COMMERCIAL PAY SERVICES, DEFENSE FINANCE AND ACCOUNTING SERVICE, DEPARTMENT OF DEFENSE; DOUGLAS BRYCE, PROGRAM MANAGER, JOINT SERVICE LIGHTWEIGHT TECHNOLOGY SUIT, DEPARTMENT OF DEFENSE; AND BRUCE E. SULLIVAN, DIRECTOR, JOINT PURCHASE CARD PROGRAM MANAGEMENT OFFICE, DEPARTMENT OF DEFENSE

Ms. BOUTELLE. I guess it's good afternoon now. Good afternoon, Mr. Chairman, Congressman Kucinich and members of the subcommittee. My name is JoAnn Boutelle, and I am the Director of Commercial Pay Services of the Defense Finance and Accounting Service, DFAS. Within DFAS, our accounting and finance systems provide a full range of services to accommodate the various procurement processes, including those used to make the payments for the two items under discussion today. These are purchase card transactions and procurements administered by the Defense Contract Management Agency, DCMA. I welcome the opportunity to discuss with you the results of the GAO sample for these purchases.

As you know, the Department of Defense has many procurement regulations, guidelines and policies. DOD mandates the use of the purchase card as the method of purchase and payment for the less complex acquisitions valued at and below the micropurchase threshold, like the purchase of the computer item GAO identified in their audit.

The Purchase Card Joint Program Office issues DOD-wide guidance and policy for the Purchase Card Program, while the individual DOD components are responsible for establishing and implementing their local Purchase Card Program and procedures in accordance with the GSA Smart Pay contract. For purchase card services, DOD is serviced by two banks, US Bank and Citibank. Both banks provide the capability for online purchase validation and invoice certification. The DFAS customers save about 60 percent of the billing charges if they choose to use the online purchase validation and invoice certification.

While there are substantial savings to utilize the electronic purchase card interfaces, not all agencies have completed implementation of the program. The GAO audit identified that DFAS Columbus as of yet was not using an automated bank process. This is correct. The initial deployment was targeted for the largest users in the United States, the Department of Army, the Department of Air Force and Department of Navy. These had been substantially implemented, and the defense agencies are scheduled for later this year. The change necessary to enable the accounting system used in DFAS Columbus to accommodate the electronic obligation trans-

action is in testing and evaluation and will be installed in the very near future.

The biochemical suits GAO selected in this review are a complex item requiring a more sophisticated procurement method. The acquisition of these suits by the services requires specific levels of quality assurance testing and financing arrangements. The Defense Contract Management Agency manages these more complex procurement transactions using the Mechanization of Contract Administration Services, MOCAS, system. In addition, DFAS Columbus uses MOCAS to pay financing and deliverable invoices.

The MOCAS system is capable of processing electronic transactions for contracts, receiving reports and invoices. Currently DFAS receives about 74 percent of the biochemical suit invoices electronically. The DOD services and agencies could reduce their DFAS bill by processing contracts and receiving reports via electronic means. For instance, the MOCAS manual rate is approximately $20 more per invoice than the electronic rate. To receive the electronic rate, both the contract and invoice must be received electronically.

DFAS is an active partner within DOD to improve the end-to-end transactions and to use this technology in order to enhance the electronic processes. We have used conferences, training seminars and presentations to educate our contractors, contracting officers, program managers and financial managers on the end-to-end procurement payment process. These efforts have improved the Department's overall procurement administration and payment functions.

Mr. Chairman, this concludes my remarks, and I'll be happy to answer any questions.

Mr. SHAYS. Thank you, Ms. Boutelle.

[The prepared statement of Ms. Boutelle follows:]

STATEMENT OF JOANN BOUTELLE

DIRECTOR, COMMERCIAL PAY SERVICES

DEFENSE FINANCE AND ACCOUNTING SERVICE

BEFORE THE

U.S. HOUSE OF REPRESENTATIVES

COMMITTEE ON GOVERNMENT REFORM

SUBCOMMITTEE ON NATIONAL SECURITY,
VETERANS AFFAIRS AND INTERNATIONAL RELATIONS

ON

"DoD FINANCIAL MANAGEMENT: FOLLOWING ONE ITEM
THROUGH THE MAZE"

JUNE 25, 2002

For Official Use Only
Until Released by the
Subcommittee on National Security,
Veterans Affairs and International Relations

Good morning Mr. Chairman, Congressman Kucinich, and members of the Subcommittee. My name is JoAnn Boutelle and I am the Director of Commercial Pay Services of the Defense Finance and Accounting Service (DFAS). Within DFAS, our accounting and finance systems provide a full range of services to accommodate various procurement processes, including those used to make the payments for the two items under discussion today. These are purchase card transactions, and procurements administered by the Defense Contract Management Agency (DCMA). I welcome the opportunity to discuss with you the results of the GAO sample for these purchases.

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DFAS is an active partner within DoD to improve the end-to-end transactions and to use this technology in order to enhance the electronic processes. We have used conferences, training seminars and presentations to educate our contractors, contracting officers, program managers, and financial managers on the end-to-end procurement payment process. These efforts have improved the Department's overall procurement, administration and payment functions.

Mr. Chairman, that concludes my remarks, and I'll be happy to answer any questions the Subcommittee may have.

Mr. SHAYS. Mr. Bryce.

Mr. BRYCE. Mr. Chairman and members of the committee, I am Mr. Douglas Bryce, the Program Manager of Nuclear, Biological and Chemical Defense Systems, Marine Corps Systems Command, Quantico, VA. I'm pleased to appear before you today to discuss the Joint Service Lightweight Integrated Suit Technology program, commonly called JSLIST. I would like to move into my opening remarks, right into the inventory issues that have been talked about earlier and make an opening statement about those.

The inventory control of JSLIST is accomplished through the efforts of the Program Office, each of the services, and the Defense Logistics Agency. The JSLIST suits held by the Defense Logistics Agency are tracked by national stock number, contract number, lot number and manufacturing date. They have visibility on JSLIST production lots up to the point that they are released to the individual services. Once that happens, accountability becomes a service responsibility. Tracking JSLIST from the manufacturer to the using unit is just not possible today, because we have not provided all of our using units the tools to accomplish this task. We have been aware of this issue and have taken steps to provide total asset visibility in the very near future.

We are aware that commercial/private sector firms routinely accomplish similar tasks at wholesale and retail levels. Wal-Mart and Sears, for example, have automated systems in place to track inventory, ordering and shipping at near real time for all locations.

We have planned a pilot program for JSLIST that will allow us to use traditional bar code, radio frequency identification tagging, scanners and readers to track the overgarments from stocks in Albany, Georgia, to the receiving unit. We have tagged these 5,000 suits for the pilot effort and arranged for units in the Second Marine Expeditionary Force at Camp Lejeune, North Carolina, to receive them. We will track the movement at several commands to validate near real time visibility. Collaterally, we will attempt to migrate information contained in the bar code to an existing data base, with an ultimate goal of being one system that can be shared and accessed by each of the services.

So a successful end state would be one that finds the Defense Logistics Agency, the Program Office and the services able to track JSLIST from the manufacturer, through DLA, to the services and operating units receiving the suits by having near real time total asset visibility.

The Defense Logistics Agency and Defense Supply Center Philadelphia have also embarked on a plan to replace the Standard Automated Materiel Management Systems with state-of-the-art systems called Business Systems Modernization. This system is expected to be user-friendly, flexible and fully implemented by fiscal year 2005. This will allow more accurate tracking of the Defense Logistics Agency's inventory. However, the Defense Supply Center Philadelphia has asked that the chemical protective apparel, especially JSLIST, be included in an early release for calendar year 2003 to ensure that the system can in-fact track shelf life items. This, linked with the services' bar coding effort and a servicewide data base, should provide the visibility of all on-hand assets re-

gardless of the suit location. This should also significantly reduce the manual processes used today in tracking JSLIST.

One problem that continues and will continue to plague us is tracking JSLIST once it has been issued by the services. We have no control over the actions of end-user units or individuals. In fact, in just the past week, as you are well aware, we have become aware of JSLIST garments that have been disposed of in Hawaii and New Jersey. We are attempting to recover these suits and have tasked—and I have tasked a section within the Program Office to start monitoring the Defense Reutilization Management Office Website for similar occurrences.

Mr. Chairman and members of the committee, I believe that we have addressed and can address the issues of inventory tracking hopefully to your satisfaction. Subject to your questions, those are my opening remarks.

Mr. SHAYS. Thank you, Mr. Bryce.

[The prepared statement of Mr. Bryce follows:]

NOT FOR PUBLICATION
UNTIL RELEASED BY
THE HOUSE COMMITTEE
ON GOVERNMENT REFORM

STATEMENT OF

MR DOUGLAS W. BRYCE

PROGRAM MANAGER, NUCLEAR, BIOLOGICAL AND CHEMICAL

DEFENSE SYSTEMS

MARINE CORPS SYSTEMS COMMAND

BEFORE THE

HOUSE COMMITTEE ON GOVERNMENT REFORM

SUBCOMMITTEE ON NATIONAL SECURITY, VETERANS AFFAIRS,

AND INTERNATIONAL RELATIONS

JUNE 25, 2002

CONCERNING

DEPARTMENT OF DEFENSE FINANCIAL MANAGEMENT:

FOLLOWING ONE ITEM THROUGH THE MAZE

JOINT SERVICE LIGHTWEIGHT INTEGRATED SUIT TECHNOLOGY

NOT FOR PUBLICATION
UNTIL RELEASED BY
THE HOUSE COMMITTEE
ON GOVERNMENT REFORM

Mr. Douglas Wayne Bryce currently serves as the Program Manager, Nuclear Biological and Chemical Defense Systems, Marine Corps Systems Command, Quantico, Virginia. He has been associated with the Marine Corps for almost thirty years. He served in the Marine Corps for twenty years, with 15 of those serving as an NBC Defense Specialist and/or officer.

In 1988, he was sent to the Marine Corps Research development and Acquisition Command to become a project officer in the NBC Defense Program Office. Four years after arriving he became the Deputy Program Manager for NBC Defense and served in that billet for six years . During the last four years, he has served as both the Program Manager for NBC Defense and the Program Manager for the Marine Individual Combat Clothing and Equipment.

The NBC Defense Systems program office at Quantico is responsible for the Marine Corps' Contamination Avoidance Systems (Sensors), Decontamination Systems, Individual Protective Systems, Collective Protection Systems/Shelters, Medical Systems, and finally Consequence Management Systems.

Mr. Chairman and members of the committee, I am Mr. Douglas Bryce, the Program Manager, Nuclear, Biological and Chemical Defense Systems, Marine Corps Systems Command, Quantico, Virginia. I am pleased to appear before you today to discuss the Joint Service Lightweight Integrated Suit Technology (JSLIST).

As the Department of Defense (DoD) lead service and program office for JSLIST, I am responsible for the research, development, test, evaluation and procurement of all JSLIST components. I am guided in my efforts by various Department of Defense instructions, orders, regulations and policies, many of which respond to statutory mandates. These include the Department of Defense (DoD) Instruction 5000.2, *Operation of the Defense Acquisition System*, DoD 5000.2R, *Mandatory Procedures for Major Defense Acquisition Programs (MDAPS) and Major Automated Information System (MAIS) Acquisition Programs*, the DoD 7000.14R, *Funds Management Regulation*, the Federal Acquisition Regulations (FAR), and Defense Federal Acquisition Regulations (DFAR) and Supplements (DFARS). All of this guidance also ensures that there is sufficient oversight of the programs I manage.

The Deputy Assistant to the Secretary of Defense for Chemical and Biological Defense Programs, Dr. Anna Johnson-

Winegar has direct oversight for this program as she does for all Chemical-Biological Defense Programs.

In all, there are 11 DoD components, not including the program office, involved in the production and procurement of JSLIST. These include the Deputy Assistant to the Secretary of Defense for Chemical-Biological Defense Programs, the Defense Threat Reduction Agency, Joint NBC Defense Board, the Joint Service Integration Group, the Joint Service Materiel Group, the Marine Corps, Army, Navy and Air Force, the Defense Logistics Agency and the Defense Finance and Accounting Service.

I intend to address several broad areas that I believe will interest the committee. I will provide a brief program description and some background information, talk to research, development, test and evaluation, and then discuss JSLIST production, procurement, accounting practices, methods of payment and finally, inventory control.

The JSLIST Overgarment is a two-piece jacket and trouser design with an integrated hood compatible with respective Service masks and second skins (see figure 1).

Please note that each of these end items, the jacket and trousers, are made up of 19 components. These components are the shell material, liner material, Barrier Bag, [redacted], Zip Bag, Boxes, Buckles, [redacted], Cord, Elastic, Hook/Loop, Label Size, Nylon Webbing, Slide Fastener (Zipper),

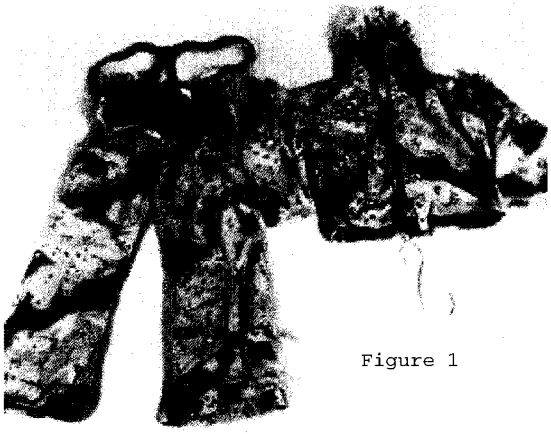

Figure 1

Stud/Socket/Post/Gypsy Stud/Capped Eyelet, Suspender Tape, Thread, and Washer, Eyelet.

The JSLIST will be worn as an overgarment for the duty uniform or as a primary garment over underwear depending upon the environment and mission.

The JSLIST Overgarment will provide 24-hour protection against chemical agents through 45 days of wear and 6 launderings.

The JSLIST went into production during 1997. To date we have contracted for 2,181,886 overgarments and produced 1,361,971 overgarments (one trouser matched with one jacket).

There are five primary contractors/production facilities manufacturing the JSLIST overgarments and 15 sub-manufacturers that produce the components. The first four primary

contractors' efforts are coordinated by NISH. These four contractors are South Eastern Kentucky Rehabilitation Industries (SEKRI), Group Home Foundation, the National Center for the Employment of the Disabled (NCED), and Peckham Vocational Industries. The last primary contractor/production facility is Creative Apparel, which is an 8a company (Tribal-owned facility). The sub-manufacturers producing JSLIST components include Tex-Shield, Lakeland Packaging, Volk Packaging, Waterbury Buckle, Hope Webbing, K & W Webbing, Velcro USA, CN Clark, Naricot or Bally Ribbon, YKK USA, YKK Universal, Tape Craft, A & E Thread, and Stimson.

There were several Chem-Bio Protective Ensemble efforts underway following the Gulf War.

The JSLIST Program evolved from the U.S. Marine Corps Lightweight Integrated Suit Technology Advanced Technology Transition Demonstration (ATTD) and the Army's Advanced Battledress Overgarment (ABDO) Program which evaluated five technologies in 25 different suit configurations.

When the program became joint service, the other Services' on-going Research and Development (R&D) Chem-Bio protective ensemble candidates were considered to be included in the JSLIST Program.

Those programs were the Navy's Advanced Chemical

Protective Overgarment (ACPO) and Interim Chemical Protective Overgarment (ICPO), and the Air Force's Ground Crew Ensemble (GCE).

As I stated earlier, JSLIST production began in 1997. Production process/steps have been incorporated in the Funds Management portion of my testimony and will be discussed later.

The JSLIST Program Office works closely with the Defense Logistics Agency (DLA) and the Defense Supply Center Philadelphia (DSCP), as well as the other 10 DOD services/agencies in the production and procurement of JSLIST.

Random samples of items from every JSLIST lot (approximately 5,000 items) produced by a manufacturing facility undergo live chemical agent testing and quality control evaluation before the lot is accepted by the government. In fact, there are several quality controls in place. These include:

(1) The manufacturers of each of the JSLIST components inspect/evaluate the items they produce. Each manufacturer provides a Certificate of Compliance to the five prime contractors certifying that the performance of the item has been met.

(2) The prime manufacturers of JSLIST materials perform a visual inspection of each lot of components and materials (with the Certificate of Compliance in hand) to

ensure compliance with the performance specification. These manufacturers then produce the JSLIST garments.

(3) Each of the manufacturers producing the JSLIST garments has its Quality Assurance Representative (QAR) at each of the production stations in the facility. Additionally, there is a government QAR who can, at anytime, inspect both the produced JSLIST garments and the quality assurance processes that the manufacturer has in place.

(4) Our prime manufacturers inspect 100% of produced JSLIST items (coat/trouser) in accordance with Table VIII (Provided as Appendix I) of the JSLIST detailed specification. This involves 220 different inspections.

(5) Completed lots are presented to the government Quality Assurance Representative (QAR) who inspects for visual and dimensional conformance. The government QAR performs 220 different inspections on 200 randomly selected there are several quality controls in place. These include:

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(v) Completed lots are presented to the government Quality Assurance Representative (QAR) who inspects for visual and dimensional conformance. The government QAR performs 220 different inspections on 200 randomly selected items (In accordance with ANSI/ASQC 2.14-1993 "American National Standard Institute for Sampling Procedures and Tables for Inspection by Attributes"), also in accordance with Table VIII of the JSLIST detailed specification.

These inspections include checks for fabric defects and damages, components and assembly, cutting, seams and stitching, sewn eyelets and metal eyelets, slide fasteners, etc. The QAR then randomly selects samples (normally six samples) to be sent to a laboratory for live agent chemical testing and forwards them using DD Form 1222. Part of the QARs' responsibility is to take a statistical sampling (normally 200 items, again, in accordance with the American National Standards Institute) of packed cartons, open them and verify that the box is accurately marked.

(vi) Chemical Agent Resistance Testing is performed by independent test and evaluation facilities. The Program Office and the Services believe that this final performance check is necessary to ensure that the garments produced perform the same as those produced during research and development. The test has been standardized and is outlined in U.S. Army Test and Evaluation Command, Test Operating Procedure (TOP) 8-2-501, "Permeation and Penetration Testing of Air-Permeable, Semi-Permeable and Impermeable Materials with Chemical Agents or Simulants (Swatch Testing)."

(vii) Additionally, on-going research and development efforts require that JSLIST materials and items must be available for side-by-side comparative testing of new

materials and engineer change proposals. This comparative testing provides yet another venue for verification of JSLIST material quality.

(viii) Finally, the Joint Service Set Aside Program was instituted to ensure that JSLIST items are periodically checked and evaluated throughout the JSLIST lifecycle. Six items from each manufactured lot of JSLIST items are set aside in order to conduct shelf life extension testing. In fact, 4,132 items have been set aside for future testing. To date we have conducted testing on three 1997 JSLIST lots. Each lot passed using the same standard that we use in production lot testing and the shelf life has been extended an additional 60 months. (In accordance with ANSI/ASQC 2.14-1993 "American National Standard Institute for Sampling Procedures and Tables for Inspection by Attributes"), also in accordance with Table VIII of the JSLIST detailed specification. These inspections include checks for fabric defects and damages, components and assembly, cutting, seams and stitching, sewn eyelets and metal eyelets, slide fasteners, etc. The QAR then randomly selects samples (normally six samples) to be sent to a laboratory for live agent chemical testing and forwards them using DD Form 1222. Part of the QARs' responsibility is to take a statistical sampling (normally 200 items,

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I'd like to spend a few minutes discussing sampling. I am aware that the committee was provided information suggesting that our sampling method may be inadequate. I believe that I can demonstrate that our sampling method is adequate in every respect.

The consideration that our sampling plan was inadequate to mitigate risk was initiated by a reference to a statistical specification (ANSI/ASQCZ1.4-1993, "American National Standard Institute for Sampling Procedures and Tables for Inspection by Attributes") designed to determine a sample size when inspecting individual items from a population for an attribute that is characterized as either "accept" or "reject". But in chemical agent resistance testing we are looking for a measured, quantitative response representative of the entire production lot that is then statistically compared to historical data. Therefore the ANSI numbers do not apply when considering the appropriate sample size for chemical agent resistance testing. When conducting our statistical analysis, sample size is not the

key ingredient. The standard that is used has more influence on results than the sample size. Our standard for JSLIST is not the minimum acceptable performance of a chemical protective garment, but the optimal performance demonstrated by JSLIST during development. Over 31% of the production lots we have tested have exceeded even this optimal standard against nerve agent and over 43% of the production lots we have tested have exceeded the optimal standard for blister agent.

Other important factors include the cumulative JSLIST development data against which we compare production lot testing, the one percent level of significance and the combined effect of the Multiplicative Factors and Power which are derived from the statistical equation. It is all of these factors in concert that eventually decide whether the sample size is appropriate. Due to our optimal standard we introduce very little risk into our performance with a minimum of waste in resources.

Given our current sampling method, there is a 1% chance that we will reject an acceptable item. Given our current sampling method, there is a 10% chance that we will accept an item that does not meet the optimal standard. Given our current sampling method, there is little chance that we will accept an item that does not meet the minimum standard. For the blister agent this chance is defined as less than a 1% possibility; for

the nerve agent this chance is defined as a 3% possibility. (Refer to the chart at Appendix II)

Approved JSLIST production lots are sent to the DLA facility and held in code AA stock until distributed to the Army, Navy, Air Force and Marine Corps for fielding. I will discuss the fielding effort in more detail when I get to inventory control.

Let me now talk to the payment and accounting procedures for JSLIST.

JSLIST payments and the requisite accounting are accomplished through the Chemical-Biological Defense Program. As a summary, there are 24 major steps to the payment and accounting process and the use of seven official systems to track and record these steps. This does not include any manual or other systems that are used by different agencies for internal tracking during the process. For example, as we go through these 24 steps you will only hear the Program Office (my office) mentioned 5 times. That means there are at least 19 steps being conducted without my input/control or monitoring of the official systems. Therefore, I have my employees tracking monthly obligations and expenditures manually to verify where we are in the process and to ensure that the accounting records are correct. I am required to provide OSD a monthly report detailing obligations and expenditures.

Please refer to the chart labeled "CB Funds Management," in Appendix III. This chart provides an overview of the programming, planning, and budgeting process we use for JSLIST.

If you will refer to the chart labeled "Payment and Accounting Management" in Appendix IV, I will talk you through the 24 step process.

- Congress appropriates the funds.
- **OSD Comptroller sub allocates appropriation via the Program, Budget, and Accounting Systems (PBAS) resulting in a Funding Authorization Document (FAD) to DTRA Funds Manager (FM)**
- **DATSD/CB provides fiscal guidance based on the FAD to all Services**
- **DTRA Funds Manager (CB) verifies FAD to DTRA Funds Manager (FM)**
- **DTRA Funds Manager (FM) sub allocates appropriation via PBAS resulting in a FAD to the Operating Agency (HQMC)**
- **DTRA Funds Manager (CB) inputs authorization from the FAD into the Joint Service Chemical Biological Information System (JSCBIS)**
- The Operating Agency (HQMC) inputs allocation into PBAS and notifies the Operating Agency [MCSC Comptroller (DFM)] of the receipt of funding authorization
- Operating Agency (MCSC PM NBC) acknowledges authorization via e-mail from DTRA Funds Manager(CB); DFM verifies PBAS funding authorization, inputs authorization into the Standard Accounting, Budgeting, and Reporting Systems (SABRS), and notifies Program Manager of SABRS authorization

{At this point, program manager execution of the authorization may begin}

- Program Manager prepares funding document [Military Interdepartmental Request (MIPR)] for execution of authorized funds and submits to DFM
- DFM signs MIPR and sends out to the procurement activities for procurement of items
- **DSCP/DLA accepts the MIPR on a reimbursable basis and returns signed MIPR to Operating Agency(MCSC PM NBC)**
- MCSC(PM NBC) records MIPR obligation on internal spreadsheets, reports MIPR obligation in JSCBIS (monthly), and forwards to MCSC(DFM) for official recording in SABRS
- MCSC (DFM) records the accepted reimbursable MIPR as an obligation in SABRS
- **DSCP/DLA contracts with vendors to procure the items requested on the MIPR**
- **Signed contract information is input in the Standard Automated Material Management Systems (SAMMS)**
- **Copies of signed contracts are sent to Operating Agency (MCSC Program Manager), DFAS Columbus, and various DCMAs/DCMCs**
- DFAS Columbus inputs contract information into the Mechanization of Contract Administration Services (MOCAS)
- Vendor submits invoices to DFAS Columbus for payment
- Vendor submits DD250s to QARs at each plant for certification.
- QARs certify DD250s authorizing shipment and payment; QARs send DD250s to DFAS Columbus; DD250s and vendor invoices are matched at DFAS Columbus for payment

- Paid invoices are posted in MOCAS by DFAS Columbus
- MOCAS feeds payment/expenditure information into the Centralized Expenditure Reimbursement Systems (CERPS) residing at DFAS Cleveland
- CERPS feeds payment/expenditure information to the Department of the Treasury and SABRS residing at DFAS Kansas City
- DFAS 1002 Reports submitted to OSD, DTRA (CB), and Operating Agency (for verification/certification)

During the past six years, the JSLIST program production expenditure history shows that we have managed to exceed the expenditure goals set forth by OSD in each of the past four years. The only goal not achieved at this time is 1997, which must be 100% expended by 30 September 2002 and currently has 18.36% (approximately $10.8M) remaining. We expect that will be expended by the required timeframe.

Inventory control of the JSLIST is accomplished through the coordinated efforts of the program office, each of the Services and the Defense Logistics Agency (DLA).

The JSLIST suits held by DLA are tracked by National Stock Number (NSN), contract number, lot number, and manufacturing date.

DLA has visibility on all JSLIST production lots up to the point they are released to the individual Services. Once suits are released to the Services, accountability becomes a Service

responsibility. As with other programs, total asset visibility will not be possible until databases are standardized across the Services and DLA. The complexity of linking JSLIST from the manufacturer to the end user is a challenge, however, I will attempt to explain how we do business today and how we envision the future.

First, it is important to point out that production lots of JSLIST are allocated to the Services by a 50-20-20-10 split, 50% for the Army, 20% each for the Navy and the Air Force and 10% for the Marine Corps.

The Program Office updates its Database weekly. This information is reconciled with DLA quarterly. As sufficient numbers of JSLIST garments become available (50-20-20-10), each Service prepares a requisition and submits it to DSCP.

DSCP authorizes the DLA storage sites to release the Services requested suits and ship to Service designated organizations. In a perfect world the receiving organization would acknowledge receipt of the suits.

At this point DLA and the Program Office can no longer track in transit visibility of the JSLIST suits. Each Service has a separate supply, logistics and maintenance management system for tracking assets.

For example, the Marine Corps employs the NBC Defense Equipment Management Program (NBC DEMP), a database which tracks

NSNs, contract numbers, lot numbers, manufacturers dates, quantities, locations, etc.

The Air Force, upon receipt of JSLIST suits, the receiving organization performs an inventory of all equipment received. The organization then enters all information on each item into the Mobility Inventory Control and Accountability System (MICAS). MICAS is the standard system used within the Air Force to track all chemical defense and mobility equipment.

The system tracks surveillance information such as quantity, manufacturer, lot numbers and contract number for each National Stock Number (NSN).

Each organization is required to provide this data to their respective Major Command (MAJCOM) on a quarterly basis. The MAJCOM consolidates MICAS reports from all subordinate commands and reports all information to HQ, USAF ILSP.

The Navy uses a prioritized fielding plan provided by NAVSEA based on Fleet Forces Command input.

The recipient command is notified by email that the shipment is coming (including requisition numbers, NSNs, and quantities). Navy Inventory Control Point (NAVICP) checks SAMMS to verify that the requisitions have been posted.

NAVICP uses a separate spreadsheet to manage requisitions internally and updates the Navy's master fielding plan with shipment dates. The recipient command tracks receipt of their

requisition numbers. The prioritized list is updated as commands are outfitted and as operational needs evolve.

The JSLIST USN Master Plan spreadsheet tracks recipient commands and quantities shipped and NAVICP uses an internal spreadsheet to manage the actual requisitions.

In addition, the Navy maintains a NBC Equipment Inventory Database that is used to gain asset visibility and provide data for the annual NBCD Congressional report. This database is now web-based, and will be further upgraded to improve functionality.

Although the U.S. Army currently does not have an automated system for tracking JSLIST, units/installations are expected to monitor shelf-life of their initial issue stock on hand, to rotate expired suits for training use, and to procure replacement items, as appropriate, to maintain readiness. The Army has initiated a study to develop improved management/business practices with supporting automation to improve surveillance, asset visibility, accountability and inventory control. The major deliverable of the study is a vision document for Individual Protective Equipment management with associated management structures and automation to identify those practices that have potential applications to the Army. This vision document will be used as a guide in improving the Army's ability to manage Individual Protective Equipment.

So, each Service has its own specific logistics, supply, maintenance management methods, and databases for input/output. There is no connectivity between these systems (these Service-specific systems do not talk to each other or back to OSD).

A Joint Service Set-Aside Project (JSSAP) was established in order to monitor the service life of all JSLIST production lots throughout their life cycle. This sustainment effort is meant to ensure that every production lot is periodically evaluated to determine that the lot still provides the required level of protection against chemical agents.

Additionally, the JSSAP mitigates the risk of having to locate specific lots in the operating forces then subsequently having them sent back to a lab for testing. The JSSAP relieves using units of having to pull combat stocks out of a warehouse for this destructive test.

Set Aside Samples are tested at the five, ten and 11 thru 14-year marks. JSLIST production lots that pass have their shelf life extended accordingly.

Whether production lots pass or fail, the information is provided to government agencies and the Services through the world-wide message system in order to ensure the Services have the visibility/information needed to either extend the shelf life for production lots, or to remove them from combat stocks for disposal. There is no guarantee (even when JSSAP releases a

world-wide message) that all units receive the information required to identify/report JSLIST production lots which should be extended or removed from combat stock. There is no guarantee, but to date this has not been an issue. It should not be an issue because even if a unit does not receive shelf life extension instructions, it is that unit's responsibility to contact his Service Item Manager for disposition instructions.

Finally, Mr. Chairman, there are a couple of initiatives underway to improve JSLIST asset visibility. We are aware that commercial/private sector firms routinely accomplish similar tasks at the wholesale (e.g., DLA) and retail (e.g., operating force unit) level. Wal-Mart and Sears, for example, have systems in place to track inventory, ordering and shipping.

First, we have planned a pilot program for JSLIST that will allow us to use traditional bar codes, Radio Frequency Identification Tagging, scanners and readers to track JSLIST overgarments from DLA stocks in Albany to the receiving operating force unit.

We have tagged 5000 suits for this pilot effort and arranged for units in the II Marine Expeditionary Force (MEF) at Camp Lejeune, NC to receive them. Collaterally we will attempt to migrate information contained in the bar code database to MICAS, with the ultimate goal being one system that can be shared and accessed by each of the Services. So, a successful

end-state would be one that finds DLA, the Program Office and the Services able to track JSLIST garments from the manufacturer, through DLA to the Services and the operating force unit receiving suits by having real time total asset visibility.

Second, you may be aware that DLA has embarked on an aggressive plan to replace SAMMS with state-of-the-art systems under the aegis of Business Systems Modernization (BSM). BSM is expected to be user friendly, flexible, and able to interact with independent inventory management systems that are already in place or planned. Although BSM will not be fully implemented until FY-05, DSCP has asked that chemical protective apparel, especially JSLIST be included in an early release sometime in CY-03. This was done specifically to insure that BSM could track shelf life items. It will allow for more accurate tracking of inventory in its control. This coupled with the Services' barcoding effort and MICAS should account for the viability of all assets and the removal of expired product.

Mr. Chairman and members of the committee; in closing I would like to point out that we believe we have provided a realistic look at how we do business today and that we are constantly striving to do better. The things we can influence, we will and are. The things we cannot we will continue to work within the system and monitor to the best of our ability. Our

ultimate goal is to provide our warfighters the best chemical protective suit in the world today.

Subject to your questions, this completes my testimony.

TABLE VIII END ITEM VISUAL EXAMINATION

Examine		Defect Critical	Major	Minor
Note: Defects listed under Coat and Trousers may also be listed under individual component defects. Any defect discovered under this circumstance shall be counted once, using the classification of the individual component defect.				
	COAT AND TROUSERS			
1. Fabric Defects and Damages	**Applicable to lining fabric:**			
	a. Any cut, tear, needle chew, hole, or burn thru the lining fabric:			
	- 1/16 to 1/8 inch long inclusive		101	
	- more than 1/8 inch long	1		
	b. Any mend:			
	- more than 1-1/4 inches in longest direction		102	
	- more than two mends per garment		103	
	Applicable to outershell fabric:			
	a. Any hole, needle chew, cut, tear, or burn thru outershell fabric:			
	- 1/16 to 1/8 inch long inclusive		104	
	- more than 1/8 inch long	2		
	b. Mends:			
	- any mend up to 1/4 inch in diameter or length			201
	- any mend more than 1/4 inch in diameter or length		105	
	- more than two mends		106	
	c. Any defect such as a smash, or multiple float			202
	d. Any misweave, area of poor dye penetration dye streak, broken or missing yarn, thin place, or shade bar.			203
	e. Any hole, cut, tear, mend, or needle holes in elbow patch reinforcement, seat patch, or knee patch reinforcement.		107	
	f. Any hole, cut, tear, mend or needle holes in cargo pocket reinforcement, patch pocket reinforcement, sleeve pocket reinforcement:			
	- up to and including 1/4 inch			204
	- over 1/4 inch		108	
	g. Printed side not facing outward		109	
2. Marking	a. Metal fastening device present		110	
	b. Sew-on type marking used		111	
	c. Discoloration caused by adhesive ticket			205
	d. Paper adhesive left on fabric			206
	e. Punched or drilled holes present	3		
3. Shaded Parts	a. Any outside part shaded except those parts listed in 3.9.4.1			207
4. Cleanness	a. Spot or stain (grease, oil, ink, etc.) **Note:** Stains attributed to charcoal content of lining should not be scored.			208
	b. Five or more thread ends in excess of 1/2 inch, not trimmed			209

TABLE VIII END ITEM VISUAL EXAMINATION

Examine		Defect Critical	Major	Minor
	from coat or trousers.			
	c. Two or more shade or size tickets or loose threads not removed from coat or trousers			210
5. Components and Assembly	a. Any component part or required and assembly operation omitted, unless otherwise specified		112	
	b. Any operation not as specified, unless otherwise classified herein			211
	c. Any component not as specified, unless otherwise classified herein		113	
	d. Any dimension not as specified, unless otherwise classified herein		114	
6. Cutting	a. Any part not cut in accordance with directional lines indicated on pattern or not in accordance with specified requirements		115	
7. Seams and Stitching	**Accuracy of seaming:**			
	a. Seams twisted, puckered, or pleated (unless otherwise classified herein)			212
	b. Part of garment caught in unrelated operation or stitching		116	
	c. Ends of seams or stitching produced with 301 stitch type, when not caught in other seams or stitching, backtacked less than 1/2 or more than 3/4 inch			213
	d. Stitching overlapping end(s) of thread breaks less than 1/2 or more than 3/4 inch			214
	e. Different shades of thread used on outside of same coat or trousers			215
	f. Ends of a continuous line of stitching not overlapped or overlapped less than 1/2 or more than 3/4 inch			216
	g. Stitch repairs not made as specified			217
	Gage/margin of stitching:			
	a. Gage of double needle stitching more or less than specified		117	
	b. Margin of edge or raised stitching more or less than specified:			
	- up to length of 2 inches inclusive			218
	- beyond 2 inches in length		118	
	Open seam:			
	a. Any open joining seam of lining except those listed in c below:			
	- up to a length of 1/4 inch inclusive			219
	- over 1/4 but not greater than 7/8 inch in length inclusive		119	
	- more than 7/8 inch in length	4		
	b. Any open seam except joining of lining and those listed in c below			
	- up to a length of 1/2 inch inclusive			220
	- more than 1/2 inch in length		120	
	c. Any open seam on coat bottom hem, outside hood or collar,			

TABLE VIII END ITEM VISUAL EXAMINATION

Examine		Defect		
		Critical	Major	Minor
	trouser waistband turn under, trouser leg hem, sleeve hem, pocket stitching, zipper tape, or slide fastener flap:			
	- up to a length of 1/4 inch inclusive			221
	- over 1/4 but not greater than 7/8 inch in length inclusive		121	
	- more than 7/8 inch in length	5		
	NOTE: One or more broken stitches or two or more continuous skipped or runoff stitches on joining seam constitutes an open seam. On double stitched seams, a seam is considered open when one or both sides of the seam is open.			
	d. 607 seams not constructed with raw edges over lapped without spacing	6		
	Raw Edges:			
	a. On outside:			
	- up to a length of 1/4 inch inclusive			222
	- more than 1/4 inch in length		122	
	b. On inside:			
	- any raw edge more than 1/2 inch in length (where edge is required to be turned in)			223
	NOTE: Raw edges not securely caught in stitching shall be classified as an open seam.			
	Runoffs:			
	a. Joining seams: When resulting in an open seam, use "open seam" classification.			
	b. Edge or raised stitching (when not resulting in any open seam):			
	- 1/2 to 1 inch in length inclusive			224
	- more than 1 inch		123	
	Seam and stitch type:			
	a. Wrong seam or stitch type		124	
	b. Looper thread of 401 stitch type finishing on outside of coat or trousers		125	
	c. Wrong thread size or type		126	
	Stitch tension:			
	a. Loose tension, up to 1 inch (excluding lining fabric)			225
	b. Loose tension, more than 1 inch (excluding lining)		127	
	c. Loose tension, up to 1 inch on lining		128	
	d. Loose tension, more than 1 inch on lining	7		
	e. Loose tension on edge of raised stitching			226
	f. Tight tension (stitches break when normal strain is applied to the seam or stitching)		129	

TABLE VIII END ITEM VISUAL EXAMINATION

Examine		Defect Critical	Major	Minor
	NOTE: Puckering is evidence of tight tension. When puckering is evident, seam shall be tested by exerting pull in lengthwise direction of seam or stitching. Failure of seam to straighten or thread breakage shall be evidence of tight tension.			
	Stitches per inch (To be scored only when the condition exists on major portions of the seam):			
	a. Less than specified:			
	- one or two stitches			227
	- more than two stitches		130	
	b. More than specified			
	- one or two stitches			228
	- more than two stitches		131	
	Skipped or broken stitches in any location (other than Specified under defect c, open seam classification):			
	a. Up to a length of 1/4 inch inclusive			229
	b. Over 1/4 but not greater than 7/8 inch in length inclusive		132	
	c. More than 7/8 inch in length	8		
	Bartacks:			
	a. Bartack stitching loose or tight causing needle cutting, incomplete, broken, not fully engaging stitched fabric, or not as specified:			
	- involving one bartack			230
	- involving two or more bartacks		133	
	b. Any bartack missing or not as specified		134	
8. Hook and Pile (Loop) Fastener Tape				
	a. Hook and loop not as specified		135	
	b. Any cut, hole, or tear		136	
	c. Hook or loop tape flattened making it non-functional		137	
	d. Any spot, stain, or streak			231
	e. Not positioned as specified		138	
	f. Cut length of hook and loop tape not as specified		139	
	g. Position of hook and loop tape reversed			232
	h. Fastener tape missing	9		
	i. Hook and loop fastener tape stitched less than 1/8 or more than 3/16 inch from edge		140	
9. Sewn Eyelets	a. Not as specified			233
	b. Not in specified position			234
10. Metal Eyelet	a. Not as specified		141	
	b. Not type, class, or size specified			235
	c. Omitted, damaged, or malformed		142	
	d. Improperly clinched		143	

TABLE VIII END ITEM VISUAL EXAMINATION

Examine		Defect Critical	Major	Minor
	e. Reinforcement piece omitted			236
	f. Reinforcement piece improperly located			237
	g. Reinforcement piece not flat and uniformly fitting			238
	h. No nicks, lifts, or uneven flattening	10		
	i. No fabric tearing or deformation		144	
11. Slide Fastener	a. Shade not as specified			239
	b. Any part of zipper assembly omitted, bent, broken, cracked, or otherwise defective, affecting function	11		
	c. Not specified type, size, or material		145	
	d. Fastener tape cut or torn		146	
	e. Thong omitted on zipper pull		147	
	NOTE: The zippers shall be fully closed and opened to determine if the zippers are operable and provide a smooth secure closure.			
12. Snap Fastener	a. Any snap omitted, mismated, bent, broken, or nicked		148	
	b. Any fastener not functioning properly (i.e., fails to snap closed, provide a secure closure, or separate freely)	12		
	NOTE: The fasteners shall be snapped and unsnapped twice to determine whether parts of fasteners separate freely and also effect a secure closure.			
	c. Clinched excessively tight, cutting adjacent fabric, fabric tearing, or fabric deformation		149	
	d. Clinched loosely to the degree that components can become detached during use	13		
	e. Clinched loosely, permitting any component to rotate freely but not to the degree that any component can become detached during use		150	
	NOTE: Incomplete roll of end of the button or the Metal Eyelet Barrel is evidence of improper and insecure clinching.			
	f. Incorrect style		151	
	g. More than three splits in Metal Eyelet or button barrel			240
	h. Not aligned with each other creating bulge or twist when closed			241
	i. Not located on coat retention cord holder as specified		152	
13. Reinforcement Pieces	a. Any reinforcement piece missing		153	
	b. Any reinforcement piece out of position by more than 1/4 inch			242
14. Labels	a. Labels not positioned and attached as specified			243
	b. Labels missing, incorrect, or illegible		154	
	c. Surveillance marking omitted, incorrect or illegible		155	
	d. Label not stitched on all four sides			244
	e. Stitching through printed portion of label			245
	f. Label not as specified			246

TABLE VIII END ITEM VISUAL EXAMINATION

Examine		Defect		
		Critical	Major	Minor
	COAT			
1. Pockets and Flaps	a. Sleeve pocket reinforcement not extended beyond side and bottom edges of pocket and flap		156	
	b. Edges of pockets pleated or twisted in stitching			247
	c. Raw edges of pocket hems not turned in			248
	d. Bellows portion of sleeve pocket positioned toward front of pocket		157	
	e. Sleeve pocket set on crookedly or poorly shaped			249
	f. Flap not covering front or back edge of pocket by 3/16 inch or more			250
	g. Hook and loop omitted or improperly placed			251
	h. Cut lengths of hook or loop tape for pocket not as specified			252
	i. Pocket flap tight causing fullness, twisting or curling of pocket flap			253
	j. Bartack on pocket or flap omitted			254
2. Slide Fastener	a. Top ends of tape not turned under and caught in the stitching joining zipper to coat			255
	b. Top stop less than 1/4 inch or more than 3/8 inch from neck edge, or bottom edge of tape more than 1/4 inch from bottom of coat or extending beyond bottom edge			256
3. Slide Fastener Flap	a. Zipper positioned on wrong side of flap		158	
4. Hood	a. Hood channel not cut on bias			257
	b. An equal amount of hood drawcord not exposed on outside of stitched eyelet			258
	c. Hood drawcord not secured with bartack			259
5. Collar	a. Edges of collar end out of alignment by more than 1/4 inch (place shoulder together and extend collar ends to determine alignment)			260
	b. Hook or loop fastener tape finishing less than 3/16 inch from top of finished collar edge		159	
6. Sleeves	a. Ends of underarm seam and side seam staggered more than 1/2 inch (measured from center of doublestitching to center of doublestitching)		160	
	b. Sleeve tab set on crooked, not square, or not parallel to hem of sleeve			261
	c. Sleeve tab and loop tape out of alignment (measured at point of attachment to finished hem bottom in parallel direction):			
	- more than 1/8 and less than 1/4 inch			262
	- 1/4 inch or more		161	
	d. Sleeve tab and loop tape not able to be fastened	**14**		
	e. Length or width of sleeve tab not as specified		162	
	f. Hook fastener tape placement more or less than 1 inch			263

TABLE VIII END ITEM VISUAL EXAMINATION

Examine		Defect Critical	Major	Minor
	from finished end of pull tab			
	g. Cut length of hook or loop tape for sleeve adjustment not as specified		163	
7. Sleeve Seams	a. Fronts not lapped over backs at sides and sleeve underarm			264
	b. Raglan sleeve seam not over fronts and backs			265
	c. Sleeve hem less than 7/8 inch or more than 1-1/8 inch 266			
8. Coat Lining	a. Correct side of lining fabric not finishing toward the inside of coat	**15**		
	b. Seam allowance not finishing toward the outershell		164	
	c. Loop side of 607 stitch not finishing towards the outershell		165	
9. Bottom Hem	a. Elastic drawcord caught in the stitching at front			267
	b. Hem width less than 1-1/8 inch or more than 1-3/8 inch			268
	NOTE: Pull on drawcord to determine attachment of Drawcord at front bartacks			
10. Drawcord	a. Any end not treated to prevent unraveling			269
	b. Knot omitted on end of one or more cords			270
	c. Treating less than 1/2 inch in length			271
	d. Any hood drawcord less than 27 or more than 29 inches		166	
	e. Coat retention cord not as specified		167	
11. Cord Locks	a. Not as specified			272
	b. Not type or size specified			273
	c. Omitted, damaged, or not functional		168	
	d. Cord lock not facing away from the wearer as worn			274
12. Dimensional	a. Any measurement deviating from any dimensions specified in Table V		169	
	b. Sleeve lengths uneven by more than 1/2 inch		170	
	TROUSERS			
1. Suspender Clips and Slide	a. Not as specified			275
	b. Not type or size specified			276
	c. Omitted, damaged, or not functional		171	
2. Cargo Pockets and Flaps	a. Pleats not turned towards back			277
	b. Bellows side not finished towards back			278
	c. Pocket flap not meeting length and width tolerance			279
	d. Pocket flap not completely covering pocket opening		172	
	e. Hook and loop omitted or improperly placed			280
	f. Raw edge of pocket hems not turned in			281
	g. Pocket flap tight causing fullness, twisting, or curling			282
	h. Edge of pockets pleated or twisted in stitching			283
	i. Pocket and pocket flaps out of alignment with each			284

TABLE VIII END ITEM VISUAL EXAMINATION

Examine		Defect		
		Critical	Major	Minor
	other by more than 1/4 inch			
	j. Pocket reinforcement not extended beyond side or bottom edges of pocket or flap		173	
	k. Top of pockets or pocket flaps out of alignment, at any corresponding point by more than 1/2 inch when measured from top edge of finished waist			285
	l. Bartack on pocket or flap omitted			286
3. Patch Pockets and Flaps				
	a. Pocket flap not meeting length and width tolerance			287
	b. Pocket flap not completely covering pocket opening		174	
	c. Hook and loop omitted or improperly placed			288
	d. Raw edge of pocket hems not turned in			289
	e. Pocket flap tight causing fullness, twisting, or curling			290
	f. Edge of pockets pleated or twisted in stitching			291
	g. Pocket and pocket flaps out of alignment with each other by more than 1/4 inch			292
	h. Pocket reinforcement not extended beyond side or bottom edges of pocket or flap		175	
	i. Top of pockets or pocket flaps out of alignment at any corresponding point by more than 1/2 inch when measured from top edge of finished waist			293
	j. Bartack on pocket or flap omitted			294
4. Waist Tab Adjustment				
	a. Improperly attached, causing strap to finish on reverse side or to function improperly		176	
	b. Edges of nylon webbing not heat sealed			295
	c. Elastic webbing not positioned as specified		177	
	d. Waist adjustment tab not box-X stitched			296
	e. Position of hook and pile tape not as specified on pattern		178	
	f. Waist tab elastic not caught under bartack			297
	g. Waist tab not attached to trousers		179	
5. Suspenders	a. Webbing not cut to length specified		180	
	b. Suspenders not boxtacked as specified			298
	c. Suspenders not bartacked as specified			299
	d. Suspenders not constructed as specified		181	
6. Front Opening	a. Top stop on zipper tape less than 1-1/4 or more than1-1/2 inches from finished top edge of waist		182	
	b. Back edge of zipper chain extending less than 1/8 or more than1/4 inch beyond right front edge of opening			300
	c. Double stud snap fastener not secured to right front			301
	d. Bottom stop missing on zipper		183	
	e. Back and bottom edge of fly protective flap not forming J-stitching		184	
	f. Bartacks not located as specified			302
7. Finished Waist	a. Top hem turned down less than 5/8 or more than 7/8 inch			303
8. Inseam, Crotch	a. Front inseam not lapping back			304

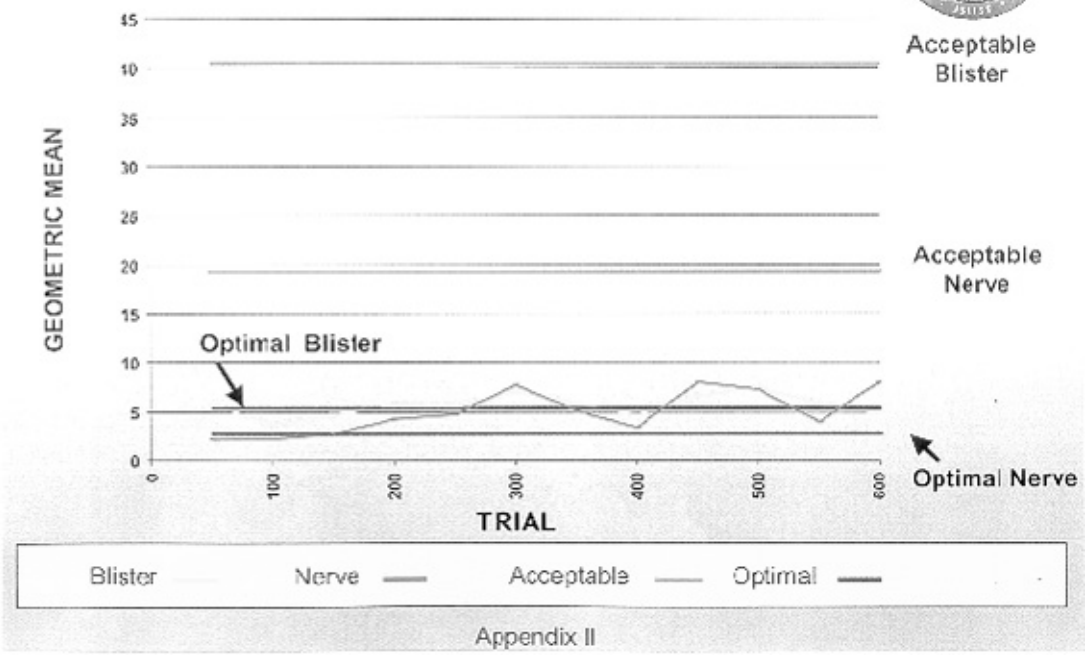
TABLE VIII END ITEM VISUAL EXAMINATION

Examine		Defect		
		Critical	Major	Minor
Seam, and Seat Seam	b. Left fly front not lapping right fly front		185	
	c. Crotch and seat seam staggered more than 1/2 inch			305
	d. Stitching joining outershell to lining extending shell to lining less than 1-1/4 or more than 1-1/2 inches below fly opening, or extending less than 3/4 or more than 1 inch above fly opening			306
	e. Stitching joining outershell to lining extending less than 3/16 or more than 5/16 inches across fly, or not superimposed on inside row of crotch joining seam			307
9. Legs	a. Finished bottom hem less than 1/2 or more than 3/4 inch			308
	b. Leg tab set on crooked, not square, or not parallel to hem of leg			309
	c. Leg tab and loop tape out of alignment (measured at point of attachment to finished hem bottom in parallel direction):			
	- more than 1/8 and less than 1/4 inch			310
	- 1/4 inch or more		186	
	d. Leg tab and loop tape not able to be fastened	**16**		
	e. Length or width of leg tabs not as specified			311
	f. Hook fastener tape placement more or less than 1 inch from finished end of pull tab			312
	g. Cut length of hook or loop tape for leg adjustment not as specified		187	
	h. Leg lengths uneven by more than 1/2 inch			313
10. Trouser Lining	a. Right side of lining not finishing toward the inside of trouser	**17**		
	b. Looper side of 607 stitch not finishing toward the outershell		188	
11. Dimensional	a. Any measurement deviating from any dimensions specified in Table VI		189	
	b. Leg lengths uneven by more than ½ inch		190	

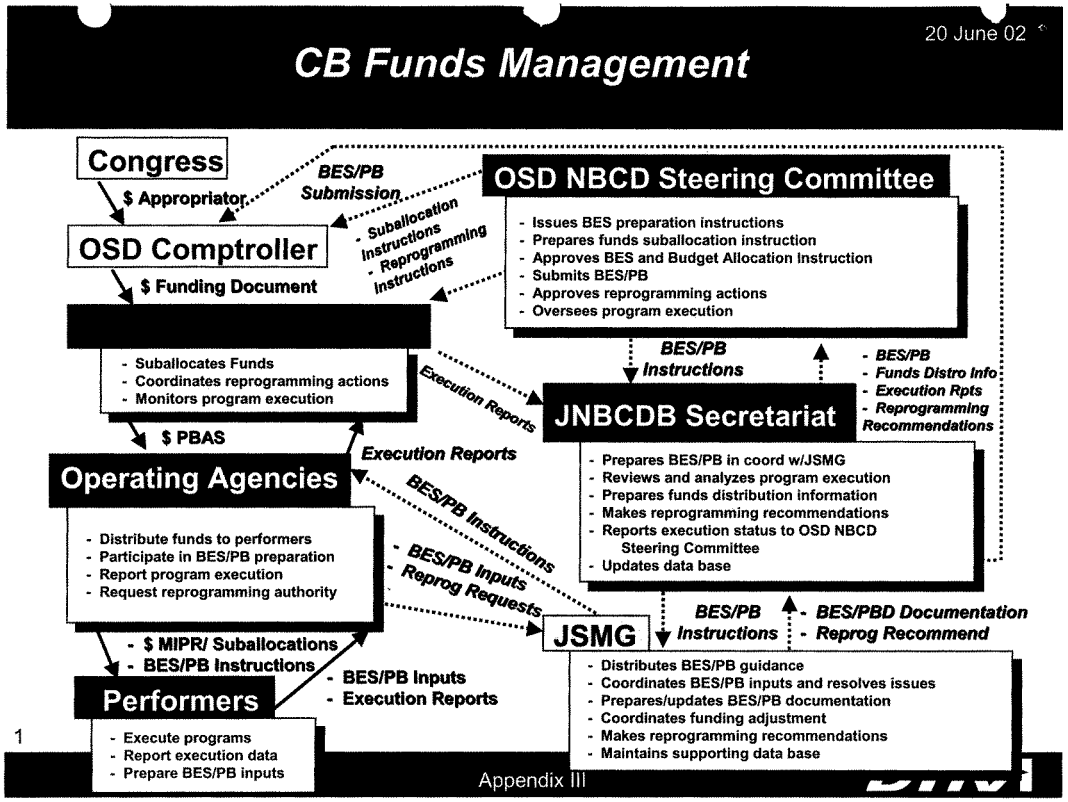
PLT AGENT TRIAL RESULTS

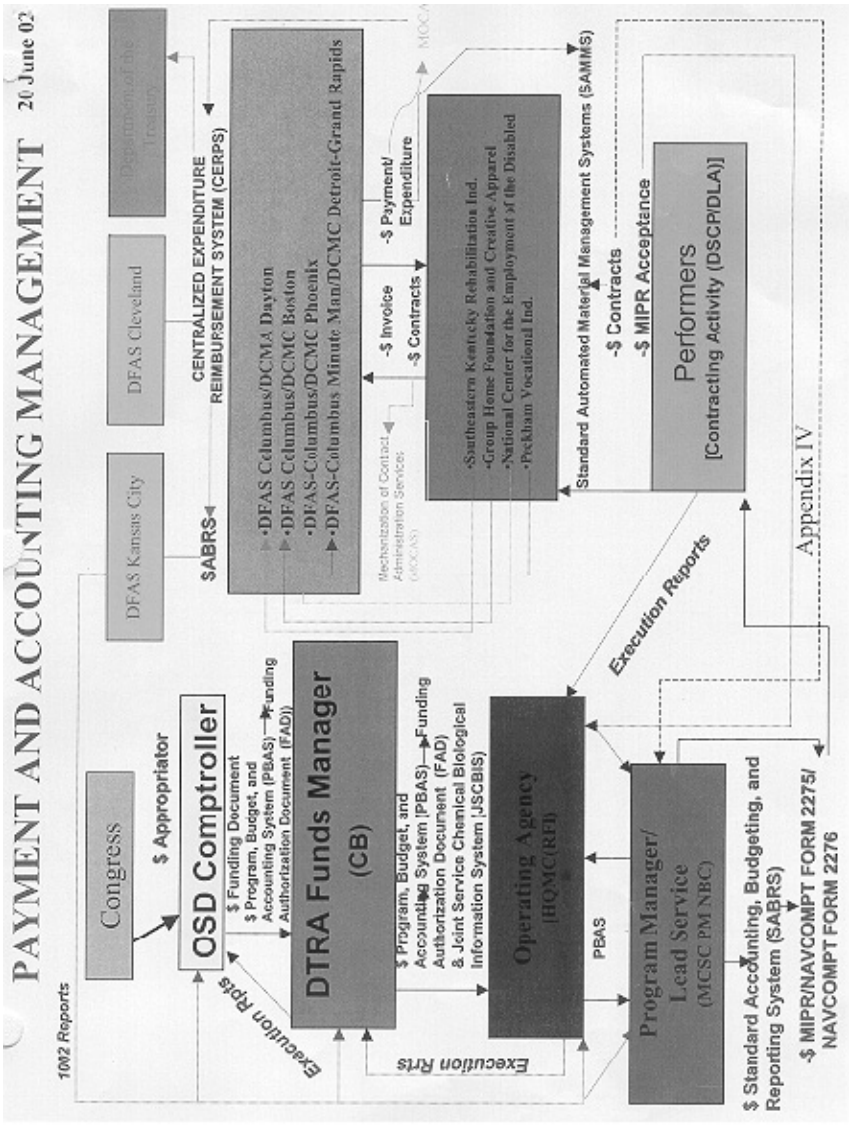
(50 Trial Average)

20 June 02



Appendix II


20 June 02
CB Funds Management
Congress
$ Appropriator
BES/PB Submission
OSD Comptroller
$ Funding Document
- Suballocation Instructions
- Reprogramming Instructions
OSD NBCD Steering Committee
- Issues BES preparation instructions
- Prepares funds suballocation instruction
- Approves BES and Budget Allocation Instruction
- Submits BES/PB
- Approves reprogramming actions
- Oversees program execution
- Suballocates Funds
- Coordinates reprogramming actions
- Monitors program execution
$ PBAS
Execution Reports
BES/PB Instructions
- BES/PB
- Funds Distro Info
- Execution Rpts
- Reprogramming Recommendations
JNBCDB Secretariat
- Prepares BES/PB in coord w/JSMG
- Reviews and analyzes program execution
- Prepares funds distribution information
- Makes reprogramming recommendations
- Reports execution status to OSD NBCD Steering Committee
- Updates data base
Operating Agencies
Execution Reports
BES/PB Instructions
- Distribute funds to performers
- Participate in BES/PB preparation
- Report program execution
- Request reprogramming authority
- BES/PB Inputs
- Reprog Requests
JSMG
BES/PB Instructions
- BES/PBD Documentation
- Reprog Recommend
- $ MIPR/ Suballocations
- BES/PB Instructions
- BES/PB Inputs
- Execution Reports
Performers
- Execute programs
- Report execution data
- Prepare BES/PB inputs
- Distributes BES/PB guidance
- Coordinates BES/PB inputs and resolves issues
- Prepares/updates BES/PB documentation
- Coordinates funding adjustment
- Makes reprogramming recommendations
- Maintains supporting data base
1
Appendix III


PAYMENT AND ACCOUNTING MANAGEMENT
20 June 02
1002 Reports
Congress
$ Appropriator
OSD Comptroller
$ Funding Document
$ Program, Budget, and Accounting System (PBAS) → Funding Authorization Document (FAD))
DTRA Funds Manager (CB)
Execution Rpts
$ Program, Budget, and Accounting System (PBAS) → Funding Authorization Document (FAD)
& Joint Service Chemical Biological Information System (JSCBIS)
Execution Rpts
Operating Agency (HQMC(RP))
PBAS
Program Manager/ Lead Service (MCSC PM NBC)
$ Standard Accounting, Budgeting, and Reporting System (SABRS)
-$ MIPR/NAVCOMPT FORM 2275/ NAVCOMPT FORM 2276
DFAS Kansas City
DFAS Cleveland
Department of the Treasury
CENTRALIZED EXPENDITURE REIMBURSEMENT SYSTEM (CERPS)
SABRS
•DFAS Columbus/DCMA Dayton
•DFAS Columbus/DCMC Boston
•DFAS-Columbus/DCMC Phoenix
•DFAS-Columbus Minute Man/DCMC Detroit-Grand Rapids
Mechanization of Contract Administration Services (MOCAS)
-$ Invoice
-$ Contracts
-$ Payment/ Expenditure
•Southeastern Kentucky Rehabilitation Ind.
•Group Home Foundation and Creative Apparel
•National Center for the Employment of the Disabled
•Peckham Vocational Ind.
Standard Automated Material Management Systems (SAMMS)
-$ Contracts
-$ MIPR Acceptance
Performers [Contracting Activity (DSCP/DLA)]
Execution Reports
Appendix IV

Mr. SHAYS. Mr. Sullivan.

Mr. SULLIVAN. Mr. Chairman and members of the subcommittee——

Mr. SHAYS. Is your mic on, sir?

Mr. SULLIVAN. I'm sorry.

Mr. SHAYS. Thank you.

Mr. SULLIVAN. Mr. Chairman, members of the subcommittee, my name is Bruce Sullivan, and I'm the program manager of the Defense Department's Purchase Card Program. The Program Office was established in March 1998 to centralize management of the program within DOD. I am responsible for promoting purchase card use, coordinating DOD card requirements with the General Services Administration, managing delinquencies, developing and deploying the standard DOD-wide card management system, and developing a DOD-wide training program. As program manager, I report directly to the Director of Defense Procurement.

Early in this assignment, I recognized substantial challenges to the successful implementation of a standard business process within the DOD. These challenges are the same as those described by the GAO during its testimony on June 4th. Institutional and cultural resistance to change and military service parochialism were my biggest adversaries. At times it appeared that change in how we do business or implementing changes that weren't invented here would be impossible. Additionally, the maze of numerous finance and accounting systems that DOD, as well as its vendors and contractors, have to navigate through to submit, certify and pay invoices presented its own challenges.

I am here today to tell you that DOD has implemented more efficient purchase card processes, and they are being used throughout most of the Department. Early in the card program, card officials found that they could buy their items easier and faster, but they were still faced with the same old paper-based bill payment process. The process was slow, time-consuming and required multiple data entries. If purchases were not summarized on the invoices from the card-issuing banks, the payment processing charges levied by the payment office could be as high as if each transaction had a separate invoice.

The old process can be depicted in six steps: Cardholder purchases and receives the items from the merchant. The merchant bank processes the card transactions. The card-issuing bank pays the merchant. The card-issuing bank then mails the monthly payment statements to the cardholder and the approving official. The cardholder reconciles the statement, attaches supporting documentation, and submits the reconciled statement to the approving official. The approving official reviews purchases, approves and certifies the invoice, and then mails the certified invoice to the payment office. The payment office electronically pays the card-issuing bank.

Under this paper-based and mail-reliant process, the ability to review transactions was limited to the end of the billing cycle when the paper statements were received by the cardholders and approving officials. Any mail delays such as we've recently experienced in the wake of the anthrax threat could add weeks between the time

the card-issuing bank sent an invoice and the time it received payment.

In 1998, the GAO recompeted the contract for the government-wide card services. Competition gave DOD the opportunity to require the card issuers to incorporate new card technologies in their contract proposals. It was our intent to leverage commercial Internet-based technologies that were not then being used within the Department to further streamline the bill-paying process. As a result, card officials now have an online capability to set up, revise and cancel card accounts, and to review in real-time credit card transactions as they post to the bank's systems.

This second capability allows officials to review and approve or dispute transactions without waiting every 30 days for the paper statements to be received. The online systems also allow cardholders to reconcile their accounts, and billing officials to certify the statements online 1 day after the end of the cycle. Online certification occurs weeks before paper statements would even be received. Upon certification, the bank reformats the invoice, consistent with commercial electronic data interchange standards. The reformatted invoice summarizes or rolls up all the cardholder transactions by lines of accounting. The bank then transmits the certified invoice via secure means to the supporting finance and accounting system where the invoice is electronically entered.

DFAS has done an outstanding job of mapping its systems to accommodate these electronic invoices and has lowered its rate it charges its DOD component customers for billing service by as much as 60 percent, a real incentive for the components to use the online process. Currently over 50 percent of the Navy's invoices and about 80 percent of the Army and Air Force invoices are paid with this process. The DOD Government Charge Card Task Force has recommended that the Department accelerate electronic certification and bill-paying systems for purchase cards, requiring the components to use the card-issuing bank systems or obtain a waiver from the component's chief financial officer and acquisition executive.

The online process was developed to support the most common use of the card, purchases within the acquisition micropurchase threshold of commercial items and services. It did not address the purchase items requiring a more sophisticated acquisition process, which may require multiple levels of preapprovals in individual line item funding. While some working capital activities have migrated to the banks' systems and confirm the ease of managing financial aspects of their programs, not all have agreed that systems can be used efficiently. Some complain that cardholders must reconcile two systems, the bank's and their component or activity internal system.

In certain instances, a component may have or may be developing systems that will offer capabilities equivalent to the banks' systems. These should not—these should be considered as acceptable alternatives to the banks only if they perform the same functions and have the same or better internal controls as those in the banks' systems. We are working with the components to resolve these issues.

Mr. Chairman, the online surveillance of cardholder purchases and the process-mandated cardholder reconciliation within this initiative, coupled with initiatives developed by the DOD Charge Card Task Force, strengthen our program of purchase card internal controls. Collectively these initiatives will deter or identify cardholder fraud, waste and abuse.

This concludes my statement. I would be pleased to answer any questions you or other members of the subcommittee may have.

Mr. SHAYS. Thank you very much, Mr. Sullivan.

[The prepared statement of Mr. Sullivan follows:]

Testimony of Mr. Bruce E. Sullivan,
Director, Defense Department Purchase Card
Joint Program Management Office
Before the
Subcommittee on National Security,
Veterans Affairs, and International Relations
Committee on Government Reform
House of Representatives

DOD Financial Management: Following One Item Through the Maze

Mr. Chairman and members of the Subcommittee:

My name is Bruce Sullivan and I am the Program Manager of the Defense Department's Purchase Card Program.

The program office was established in March of 1998 to centralize management of the program within DoD. I am responsible for promoting purchase card use, coordinating DoD card requirements with the General Services Administration, managing delinquencies, developing and deploying a standard DoD-wide card management system, and developing a DoD-wide training program. As the Program Manager, I report directly to the Director of Defense Procurement.

Early in this assignment, I recognized substantial challenges to the successful implementation of standard business processes within the DoD. These challenges are the same as those described by the GAO during its testimony on June 4th.

Institutional and cultural resistance to change and Military Service parochialism were my biggest adversaries. At times, it appeared that changing "how we do business" or implementing changes that "weren't invented here" would be impossible. Additionally, the maze of numerous finance and accounting systems that DoD – as well as its vendors and contractors – have to navigate through to submit, certify and pay invoices presented its own challenges.

I am here today to tell you that DoD has implemented more efficient processes and they are being used throughout most of the Department.

Early in the card program, card officials found that they could buy their items easier and faster, but they were still faced with the same old paper-based bill payment process. The process was slow, time consuming and required multiple data entries. If purchases were not summarized on the invoices from the card-issuing banks, the payment processing charges levied by the payment office could be as high as if each transaction had an individual invoice.

The old process can be depicted in six steps:

1) Cardholder purchases and receives item from merchantMerchant's bank processes card transactions - card-issuing bank pays merchant.
2) Card-issuing bank mails monthly paper statements to cardholder and approving official.
3) Cardholder reconciles statement
4) Cardholder attaches supporting documentation and submits reconciled statement to approving official.
5) Approving official reviews purchases, approves and certifies invoice and mails certified invoice to the paying office.
6) Paying office electronically transmits payment to card-issuing bank

Under this paper-based and mail reliant process, the ability to review transactions was limited to the end of the billing cycle when the paper statements were received by the cardholders and approving officials. Any mail delays, such as we've recently experienced in the wake of the anthrax threat, could add weeks between the time the card-issuing bank sent an invoice and the time it received payment.

In 1998, The General Services Administration re-competed the contract for Government-wide card services. Competition gave DoD the opportunity to require the card issuers to incorporate new

card technologies in their contract proposals. It was our intent to leverage commercial Internet-based technologies -- that were not then being used within the Department -- to further streamline the bill paying process. As a result, card officials now have an on-line capability to setup, revise and cancel card accounts and to review, in real time, credit card transactions as they post to the banks' systems. This second capability allows officials to review and approve or dispute transactions without waiting every 30 days for the paper statements to be received. The on-line systems also allow cardholders to reconcile their accounts and billing officials to certify the statements on-line, one day after the end of the cycle. On-line certification occurs weeks before the paper statement would be received. Upon certification, the bank reformats the invoice consistent with commercial electronic data interchange standards. The reformatted invoice summarizes, or rolls up, all of the cardholders' transactions by lines of accounting. The bank then transmits the certified invoice, via secure means, to the supporting finance and accounting system where the invoice is electronically entered. The Defense Finance and Accounting Service (DFAS) has done an outstanding job of mapping its systems to accommodate these electronic invoices and has lowered the rate it charges its DoD Component customers for bill-paying services by as much as 60%--a real incentive for the Components to use the on-line process.

The on-line, real-time approval and certification process enhances internal controls because the process demands discipline. The invoice does not get paid unless the cardholders reconcile their accounts. The on-line process also decreases delinquencies and prompt payment interest penalties since it enables invoices to be certified within a few days of the billing date – removing mail delays between the geographically separated players (the banks, the certifying officials and the payment offices).

Finally, the on-line process reduces problem disbursements and strengthens internal controls. The accounting data is entered into the card account and this is the data that is used for every entry into the supporting accounting and finance systems. It comes from a single source and is not subject to data entry errors. The on-line, real-time tools also enhance supervisors' and program officials' surveillance capabilities by giving them real-time access to the cardholders' transactions.

Currently, over 50 percent of the Navy's invoices and about 80 percent of the Army and Air Force invoices are paid with this process. The DoD Government Charge Card Task Force, has recommended that the Department accelerate electronic certification and bill paying systems for purchase cards, requiring the Components to use the card issuing banks' systems or obtain a waiver from the Component's chief financial officer and acquisition executive.

The on-line process was developed to support the most common use of the card (i.e., purchases within the acquisition micro-purchase threshold of commercial items and services). It did not address the purchase of items requiring a more sophisticated acquisition process, which may require multiple levels of pre-approvals and individual line item funding. While some working capital activities have migrated to the banks' systems and confirmed the ease of managing financial aspects of their programs, not all have agreed the systems can be used efficiently. Some complain that cardholders must reconcile two systems – the bank's and their Component or activity internal system.

In certain instances, a Component may have, or may be developing, systems that will offer capabilities equivalent to the banks' systems. These should be considered as acceptable

alternatives to the banks' systems only if they perform the same functions and have the same or better internal controls as those in the banks' systems.

We are working to resolve these issues

Mr. Chairman, the on-line surveillance of cardholder purchases and the process-mandated cardholder reconciliation within this initiative, coupled with initiatives developed by the DoD Charge Card Task Force, strengthen our program of purchase card internal controls. Collectively, these initiatives will deter or identify cardholder fraud, waste and abuse. This concludes my statement. I would be pleased to answer any questions you or other members of the Subcommittee may have at this time.

Mr. SHAYS. Mr. Kucinich is going to start off. Then he needs to get on his way. I may have my staff ask some questions, and then I'll be asking some questions.

Mr. Kucinich.

Mr. KUCINICH. Thank you very much, Mr. Chairman.

To Mr. Sullivan, maybe you can help me with this testimony that was presented by the previous panel when they were talking about selected line items from purchase card monthly statements and related DFAS processing fees.

They have a chart here which lists vendor, the amount of purchase and the processing fee. Staples, the amount of the purchase was——

Mr. SHAYS. Do we have that on one of the panels that you had? Maybe we could just stick it up there? We don't have that one?

Mr. KUCINICH. OK. You know, I always feel and just think it's important that we track a signal item in this—in the previous hearing, we focused on the suit through the whole process so we could learn something. I wanted to focus on a few items here to see what we may be able to learn about this—the practices of the DOD.

The vendor, Staples; amount of purchase, $4.37; processing fee, $17.13. Vendor, Culligan Water Conditioning; amount of purchase, $5.50; processing fee, $17.13. The vendor, Office Depot; amount of purchase, $8.59; processing fee, $17.13.

Can you explain how we're in a system where we have transactions where the processing fee is costing anywhere from two to three times what the item purchased costs?

Mr. SULLIVAN. I believe the processing fee there is what DFAS charges to do the accounting and bill payment for the purchase card. Typically throughout the Department what we require is that cardholders summarize the bill, so that if a cardholder had a bill with those type of purchases on it, there would be one line of accounting to be used for all those purchases. That's what would be sent to the Defense Finance and Accounting Service. There would be one charge for all of the individual purchases under that.

Mr. KUCINICH. Could Ms. Boutelle—would you like to help with that?

Ms. BOUTELLE. Mr. Sullivan is correct. The $17.13 charge is what we charge to—if we have to input the documents to be able to pay. So that is the charge per line of accounting to recover our cost. If it had been sent in electronically, it would have been $6.96 is what we would have charged. If the service would have rolled up their purchases and consolidated them instead of sending a separate line of accounting for the Staples, the water conditioning and the Office Depot, if they had consolidated them, there would have been one line of accounting and one $6.96 charge if they had used the bank's automated process.

But that is the charge for us to recover our cost for the manual process.

Mr. KUCINICH. Anyone else want to comment on that at all? I mean, is this—so if we wanted to save money, you're saying the way you do it is electronically.

Ms. BOUTELLE. Absolutely.

Mr. KUCINICH. An in this case you'd save about 100—almost 200 percent in terms of cost.

Ms. BOUTELLE. Uh-huh.

Mr. SHAYS. Would the gentleman yield?

Mr. KUCINICH. Of course.

Mr. SHAYS. Because the question—your answer raises some questions. You said if they had consolidated. Now, what would have told them to consolidate? How do they know that?

Ms. BOUTELLE. That is a service decision at what line—level that they want to capture their cost. So when you heard GAO mention earlier that we had received an invoice that they looked at where there were 233 different lines of accounting, if the service had decided that they did not need to know the staples and the pencils and whatever else that was on that purchase, that they did not need it down at that detail, they could have rolled it to fewer lines of accounting. Then it would have been a lower charge. It would have been either $17.13 per line if we still had to do it manually, or it would have been $6.96 if they had used the bank's automated system.

Mr. SHAYS. What determines whether it's manual or electronic? I mean, what should Mr. Sullivan have done or his people to make it electronic?

Ms. BOUTELLE. Well, I'll let Mr. Sullivan address that, but I believe he's working very close with the services to get them to implement the automated process. This one happened—the one that they happened to look at in Columbus is a Navy activity, which is kind of an anomaly that it is accounted for at Columbus, and they are free to use the automated process today.

Mr. SHAYS. My time—I'll come back to this, but I need to understand why it is $6, and that is my ignorance, because I don't know. But I guess I don't understand what processing means. It's a transaction cost, but I don't understand why it needs to be $6. And I guess I should have asked the previous panel as to what it would be in the private sector.

Mr. Sullivan—I'm sorry.

Mr. KUCINICH. That's OK, Mr. Chairman. It's a logical sequence of questioning here.

Mr. Tierney raised a question, and I wanted to join with him in following up on it. Is it possible to establish—if any of these gentlemen can—the lady can answer this question—a chain of command on procurement? Who is it—who are the individuals responsible at every level so that we can fix responsibility to know exactly who made a decision that resulted in, let's say, the—not being able to locate an item or the amount that a taxpayer is paying and maybe the amount that is wasted? Is this system built in such a way that you can do that? Anyone?

Mr. BRYCE. I'm not sure that the system is built to where you could in each of the services go to a single individual and point to them, although there are people familiar with those processes, and that could be given to you. Each of the programs work on their logistics, and sometimes they work very independent of one another, and sometimes they are very cooperative with the overarching strategies of the service and/or the DOD. So we could provide a list

of people from the program manager all way up to DOD that you could look at and make a determination.

Mr. KUCINICH. I think it would be helpful to understand the process and also to be able to begin to fix accountability from the top all the way through the system, and the same would go for IT, that we can find out who makes these decisions.

Now, one of the things that I think was remarkable in the previous discussion we had, Mr. Chairman, how a person worked for the Department of Defense in developing these—in this faulty system, left the Department of Defense, and is now helping Sears, from what I understand, if I understood that correctly—helping Sears manage its financial accounting in a way that's supposedly exemplary. Let's suppose when he worked for the Department of Defense, he tried the same techniques. Was he being frustrated at any place and that's what caused him to go to the private sector? Is the system so bad that even—that good people can't change it? And if it is so bad, what can this Congress do to try to intervene to protect the taxpayers?

Mr. BRYCE. I believe that the system in the area of logistics has always been a bone of contention in the services, the DOD and the outside. There are good people that work programs and have managed to get things implemented in DOD and in the services that are good quality, logistical products and support applications. Not everyone is able to do that, and that's not necessarily the fault of the system. It may be a fault of the timing or the place of the individual.

Mr. KUCINICH. You know, Mr. Chairman, I'm going to—I'm going to have to go, but I've been involved in government for quite a while, and I've always approached things believing that people are essentially good, that systems are neutral, and sometimes they don't work. It's not the people that are bad. The systems sometimes need changing. And any of us who have been in government have met individuals who—such as you, who work for our government. We all work for our government. They're good people. They want to do the right thing. There's something wrong with the system.

So I think this question that I raised on behalf of myself and Mr. Tierney relate to helping us get a critical analysis of the system so that perhaps we can maybe make some recommendations as to how we might improve the system. I have found throughout my experience in government there's a lot of good people who choose to work for government, and they need support, but sometimes they need the support from the Congress to put pressure on to change the system itself so that we don't get into some of these horror stories that are the subject of this particular hearing.

I want to thank the members of the panel for being here.

Thank you, Mr. Chairman.

Mr. SHAYS. Thank you very much, Mr. Kucinich.

Let me just understand, Mr. Sullivan and Mr. Bryce, from both of you, and maybe from you as well, Ms. Boutelle, is the system broken right now, Mr. Sullivan?

Mr. SULLIVAN. No, sir. For the purchase card, I don't believe the online certification process that we built over the last few years—we dealt with an existing finance and accounting system or systems. What we did is we looked at how we had to deal with them

up front, realizing it was paper-intensive and required a lot of data reentry. We worked with the two banks to develop an electronic system that would automatically interface with the finance and accounting systems. For the most part, we did away with the paper and the hand-jamming of all that data within those systems.

I think we've improved it drastically. Not all components are using it 100 percent, however, and we're still working with those.

Mr. SHAYS. Mr. Bryce, is the system broken?

Mr. BRYCE. I believe that DOD is a very large organization and corporation, and, yes, I do believe that some of the systems are certainly broken. We have service parochialisms. We have stovepipe solutions that are everywhere in DOD, and it does take time to fix those systems. So, yes, I do believe there are some things that are broken.

Mr. SHAYS. Mr. Sullivan, if the system isn't broken, then how would you describe what's happened now? I mean, the system is working well, the system——

Mr. SULLIVAN. With what the GAO found in their study of the purchase card with the——

Mr. SHAYS. Right.

Mr. SULLIVAN [continuing]. Computer? What they looked at was—had to do with the Navy statement, working capital fund. The Navy has elected not to use the electronic process. We built it for them. The banks have it. It's capable of being used, and, as Ms. Boutelle said, that they can, if not now, in the very near term, accept the electronic feed if the Navy elects to use it.

The Charge Card Task Force has made a recommendation that they use the system, or else if they have another one that can do the same thing, to use that, but the task force also wants them to get off of the paper and the manual reentry.

Mr. SHAYS. Let me understand, Ms. Boutelle; do you think the system is broken, these two issues that we're talking about?

Ms. BOUTELLE. I think the—if you look at the system——

Mr. SHAYS. Is your mic on? Maybe it's just too far?

Ms. BOUTELLE. I think it is. OK. I'm sorry.

I think if you look at DOD and all the many different business processes that are incorporated within DOD, I think that the answer is yes, the system is broken in many places. We do not have integrated processes from end to end, and that is, of course, one of the focuses of the Secretary to try to improve the financial management and to come up with an architecture that will work, look at our business processes, and then figure out what we need to support those processes.

So I think it is broken, and I think that there are pieces that are more broken than others.

Mr. SHAYS. In regards to the JSLIST, it takes evidently 128 processing steps to acquire control in inventory and pay for JSLIST. Why is that, Mr. Bryce?

Mr. BRYCE. I believe that you'll find most of those manual processes down at the using unit where the rubber, so to speak, actually meets the road, and that these individuals are tracking JSLIST and using all manual processes, and that is where I think you'll find the majority of those.

Now, as you start to move up that chain and you start to use the procurement process, there are lots of manual systems that each step uses to track themselves, or they build an XL spreadsheet or a Windows spreadsheet or some spreadsheet to track themselves internally, and what that creates is manual processes. So throughout this whole JSLIST, if you followed it all the way from the using unit back through the procurement cycle, you would find several places and organizations that use manual processes.

Mr. SHAYS. Kind of reminds me when I was a State legislator in 1994, I ran on a pledge of having the High Ridge Road, which is about 5 miles from the Parkway to downtown Stanford—that the lights would be synchronized, and I was told they were synchronized. And the lights, any time there was a lightning storm or something, they would go out of sequence. And, you know, 6 years later it still wasn't fixed, and we finally learned that they were buying a mechanical system instead of solid-state technology then—I'm going back a few years, obviously—and the reason was was the person in charge of purchasing lights didn't know how to work on anything that wasn't mechanical. So the entire population was screwed by that. But once we found that reason, you know, the change happened, and the lights actually worked in sequence.

It's hard for me, though, to imagine why we have mechanical systems. Tell me, what is the culture that requires that? Is it just one person training another, and it's just what you're familiar with?

Mr. BRYCE. If I might, I could try to give you an example in the procurement process of the JSLIST. I have identified in my written statement that there are 24 major steps to the process. Of those 24 steps, I have visibility of 5 that I can track through some type of system that I have access to or monitor or input to. That leaves 19 that I do not.

Mr. SHAYS. And who has control over those 19?

Mr. BRYCE. Those would be all the other various agencies within DOD, which could be DFAS, could be DLA, Department of Defense. There are a number of organizations that are in the chem/bio defense community, the services. Each one of those have processes and do things that I have very little visibility of as the Program Manager.

So that's where I believe a lot of the issues stem from in our processes is that there's no integrated architecture. There is no way to run this from the top to bottom. Although we have a lot of people with good intentions, and they want to provide oversight and guidance and help, what it ends up being is another stovepipe solution with somebody else in charge.

Mr. SHAYS. Ms. Boutelle, I'm unclear, and I'm hesitant to go here because I'm exposing my ignorance more than I want to. I don't understand the two different charges, the manual and the electronic, and it strikes me that it's government paying government. I mean, this is a charge that ultimately the government is paying to another government entity. Is that part correct?

Ms. BOUTELLE. Yes, sir.

Mr. SHAYS. OK. But do the two charges represent actual cost, not of that particular transaction, but of the overall, and then you all have broken it down in this way?

Ms. BOUTELLE. Yes, sir. You're right on target. If you take all of the costs for doing the process, and you allocate then how much of the cost is—how many invoices, line items, lines of accounting do I pay where I have to have people key the data into the system, and then how many transactions come through electronically, there is an allocation process that we go through to recover our costs, and to have a person that has to input the transactions, whether it's a contract, receiving report, an invoice, the purchase card certified payment, that adds to the cost that we must recover, and that is basically the difference between the $17.36 that's manual processing and the $6.96 that's electronic. If the transaction comes in for the purchase card via the electronic process, it's hands-untouched and goes through where we have to pay for the system running, the maintenance of the system, the programmers that keep it up, the folks who run the system, and then all of the other processes that just happen at a bill-paying environment. But it's basically $10 cheaper because a human is not involved in the process.

Mr. SHAYS. These are transaction costs, correct? We call them transaction costs?

Ms. BOUTELLE. Right. It is the way that we bill the customers to recover our costs.

Mr. SHAYS. Now, dealing with you, you all are basically a monopoly, I mean, in the sense that they can't go somewhere else to get that service provided?

Ms. BOUTELLE. True.

Mr. SHAYS. How do we ensure that your costs are efficient costs? In other words—and costs, when you charge someone, ultimately—I'm asking more than one question. So we'll figure out which one I want you to answer first, but ultimately costs, and the higher the costs are, change behavior. So you'd think that if you were charging someone $17 as a transaction cost, they would have an incentive to save that money. Do they not get—is that money something they basically can find somewhere else so it's no skin off their back?

I mean, there are certain costs, frankly, in Congress that are not part of my costs out of my budget, but we're well aware of what is my budget cost, and if something is too high in some area, and I can make the savings and then use it somewhere else, I know it's better than something that's—you know, I don't pay the heat in the building. I'm not charged for the heat or the air conditioning. So I'm not—I'm not as conscious, except I like to think I'm publicly aware that having my window open in the summer when I have the air conditioning on is a costly thing to do. But you get my gist?

Ms. BOUTELLE. I do.

I think you've asked me two questions. The first question you've asked me is what is my incentive to drive down my costs which will eventually be passed on to the rest of the Department.

Mr. SHAYS. And then the other cost is—and Mr. Sullivan maybe—does Mr. Sullivan end up paying this cost, or does Mr. Bryce end up paying this cost?

Ms. BOUTELLE. Mr. Bryce ends up paying it for the invoices that I pay for the JSLIST program.

Mr. SHAYS. So, Mr. Bryce, afterwards if you would respond. I just want to be clear on this, as to whether you consciously are aware that $17 is paid, and does it come out of your budget or somewhere else? OK.

Ms. Boutelle. Sorry.

Ms. BOUTELLE. The—what we have done at DFAS is we have reorganized by business lines, and we did this so that we could put the focus more like what corporate America does. So we have three business lines, the accounting, the military and civilian pay and the Commercial Pay Services. So today I have all of the bill-paying operations that report to me for DFAS.

Mr. SHAYS. And let me be clear on this. Do you pay—you make sure the government has made a payment on any bill that is commercial?

Ms. BOUTELLE. I pay for the—you know, there may be—there's a few outliers out there that are still paying their own bills that we haven't capitalized, but I disburse approximately $156 billion through the Commercial Pay Services to contractors and vendors annually.

Mr. SHAYS. So GE capital—excuse me. GE, the aircraft engines in GE, or Pratt & Whitney is paid through you all?

Ms. BOUTELLE. Raytheon, Boeing, Lockheed, all of those. Anything that is a vendor or contractor, we pay that through the Commercial Pay.

Mr. SHAYS. Right. And basically we have two players in this process here. We have one player who is actually just a certain equipment, in this case the suits.

Ms. BOUTELLE. Right. Those are contracts that—for the most part contracts that are administered by the Defense Contract Management Agency. Those have complex payment terms and financing agreements and——

Mr. SHAYS. So you're paying his bills.

Ms. BOUTELLE. I pay his bills.

Mr. SHAYS. And he gives you the vouchers for them. In some cases he gives you the invoices. Most of them—a good chunk of them are still manual, not electronic?

Ms. BOUTELLE. Actually I'm getting 74 percent of the JSLIST invoices coming in electronically.

Mr. SHAYS. OK. So tell me how you figure your costs. Why would it be basically $7, $6.96, for every transaction? And is that competitive in the private marketplace?

Ms. BOUTELLE. I do not know if it is competitive in the marketplace. It is hard for us to get benchmarking data as to what corporate America—what their costs are.

Mr. SHAYS. Yeah. But——

Ms. BOUTELLE. We do have other payment requirements than they have, yes.

Mr. SHAYS. I know Congress doesn't make your life easy, but OK.

So define to me why you—is the 17.13 an incentive to get them to do it electronically?

Ms. BOUTELLE. $17.13 is what it costs me to recover the costs of having people pay this—pay an invoice manually, and the cost, if they go electronically on a purchase card, is $6.96. So rather than submit to us the paper certified——

Mr. SHAYS. I understand that. So you have basically figured out both costs as accurately as can be to define actual costs.

Ms. BOUTELLE. Yes, sir.

Mr. SHAYS. And I see nodding of heads of others who were sworn in. Thank you.

So it is—now, Mr. Bryce, tell me your incentive.

Mr. BRYCE. My incentive to reduce the cost?

Mr. SHAYS. Yeah.

Mr. BRYCE. Or to pay the bill electronically?

Mr. SHAYS. That 17.13 transaction cost, if you pay it, tell me what it does to your budget.

Mr. BRYCE. I have no visibility of that $17.33. I pay a percentage of money to have the Defense Logistics Agency and the Defense Support Center in Philadelphia administer the contracts, which includes the DCMA, or used to include the DCMA folks. That bill was about 6 percent of my budget is what I paid for——

Mr. SHAYS. But your testimony before our committee is basically, just like me with the air conditioning and the heat, it's someone else that pays the bill.

Mr. BRYCE. Somebody else pays the bill of which I have very little visibility.

Mr. SHAYS. And it doesn't come out—and they don't then subtract it from your budget?

Mr. BRYCE. To my knowledge, that $17.33 is not subtracted out of my budget. I pay one organization a flat fee, and how they distribute that money, if it comes out of the defense——

Mr. SHAYS. So you would pay them a flat fee whether you did it all manually or all electronically?

Mr. BRYCE. That is correct, sir.

Mr. SHAYS. And it would be the same amount?

Mr. BRYCE. Same amount, 6 percent.

Mr. SHAYS. OK. Mr. Sullivan, I'm—describe to me your program. I'm sorry to our guests here that I'm going this slowly, but I'm——

Mr. SULLIVAN. The electronic——

Mr. SHAYS. Yes.

Mr. SULLIVAN [continuing]. Bill paying?

When we first started in this program, we looked at how credit card statements were being paid, and credit card statements look identical to what you get on your personal credit card. It's a statement which lists the merchants and the dollars and the dates. We went out and saw individual's writing a line entry—a line of accounting for every single thing they were buying, and they were writing on their statement, and they were bringing the statements together, and they were mailing them to Defense Finance and Accounting Services for them to pay the bill. And DFAS had to key in all that information.

Mr. SHAYS. And that is you, Ms. Boutelle?

Ms. BOUTELLE. Yes, sir.

Mr. SULLIVAN. What we wanted to do was take advantage of online Internet technologies with the new GSA contract. So we required the contractors who wanted to provide card services to the DOD, we required them to give us a proposal for doing all of the statement invoicing on the Internet.

Mr. SHAYS. So Mr. Bryce could be using the same system?

Mr. SULLIVAN. If they wanted to pay by purchase card, they could. This is strictly just the purchase card process.

Mr. SHAYS. Right. But the point is you're providing a service to other government agencies.

Mr. SULLIVAN. I provide the Internet purchase card service to the Defense Department.

Mr. SHAYS. Right. Anybody—it can be—no. I got it wrong. You want to jump in, Ms. Boutelle?

Ms. BOUTELLE. I think we may be confusing you, sir. The purchase card has a certain dollar threshold. The contracts that are for the JSLIST program are not within the rules.

Mr. SHAYS. These are more like small items that you would—it would be small inventory that you might need to run your shop, the paper, the other stuff, correct?

Mr. BRYCE. That's correct.

Ms. BOUTELLE. Right. We charge—actually, we charge a different rate for the invoices that we pay for the JSLIST contracts because of the additional processes that they go through. The rate that we're quoting to you, the $17.13 versus the $6.96, is applicable to purchase cards.

Mr. SHAYS. Right. Is applicable to purchase cards. I'm sorry. I didn't understand that. OK.

Mr. SULLIVAN. What we did with that was we placed the cardholder statements online on a secure Internet site that the cardholders could actually look at their statement as they were purchasing throughout a billing period. So you could look at, you know, your use of the card, or if it's been compromised, you can find out someone else is using your card number before you get a statement by looking at it throughout the month.

Not only can the cardholder do that, but his supervisor or the approving official can watch what their cardholders are using or where they're using the cards throughout the month. Not only that, but the program officials performing the oversight can do the same thing.

So there's a lot of internal controls that have been strengthened by the use of that Internet technology, but important in this particular process here is that at the end of the month, a day after the cycle ends, rather than waiting for mail to deliver your statement, you could look at your statement on the Web, approve it. Your supervisor could go in the same day, certify that statement, and then upon certification, the bank locks that down, reformats it in an electronic format, and sends it to DFAS, and it's automatically loaded in the finance systems. That's done, and the bank is paid before people even get their statements.

Mr. SHAYS. I'm wondering as we're talking about—I'm thinking of my own budget, how much of it's manual, and I'm feeling a little uncomfortable.

Before we go to have my staff ask questions here, Mr. Bryce, I just want to be clear then. I was mixing up costs. You submit three-quarters of yours electronically and one-quarter manually. What are the costs associated with those transactions?

Ms. BOUTELLE. The manual ones are $101.47, and the electronic commerce ones are $84.20 for the ones that go through MOCAS. And I think out of 85 contracts, there's 58 of them, I believe, that

are being paid through MOCAS, and then the remaining ones are going through SAMS, which is another system that was mentioned earlier, and the electronic rate on that is $3.96.

Mr. SHAYS. OK. The first one was 101.84?

Ms. BOUTELLE. 101.84.

Mr. SHAYS. And these are big contract items that require a lot of extra work?

Ms. BOUTELLE. Right. They require a lot of contract administration and require financing.

Mr. SHAYS. And so the $84 electronically could be on something that was a $2 million transaction or something?

Ms. BOUTELLE. Yes, and that's a per-invoice cost. So there could be many lines of accounting on that invoice, but it would only be $84.20 if electronic.

Mr. SHAYS. OK. Let me have my staff go. We'll be going a little bit longer here. I'll have some questions after.

Just for clarification, Ms. Boutelle, you indicated and GAO found that the Navy chose not to use the electronic process for these purchases or for the recording of these purchases under the Purchase Card Program. GAO also said, however, that the Navy can accept electronic statements from the contractor under the Computerized Accounts Payable System, the CAPS system; is that correct?

Ms. BOUTELLE. The CAPS system can accept the—an electronic purchase card transaction from US Bank. The Navy uses Citi Direct, and we have—we had not mapped the Citi Direct transaction into CAPS. We've gotten a cost on that. It's $5,000. It's going to take about 2 weeks, and I've already told the folks to go ahead and start that.

Having a Navy activity, having their accounting done at a CAPS location is truly an anomaly. Until GAO pointed this out, of course, we were not into the implementation yet of the defense agencies. I truly wasn't aware that I had that situation. So they brought it to light, and I pursued having that mapped in. But CAPS can accept the electronic transactions, and then the accounting system sitting at Columbus that accounts for the defense agencies that are handled there at Columbus, the mapping of the obligation transaction is being worked and tested and should be implemented here within the next few weeks.

Mr. SHAYS. Do you know if there are any other potential cases out there where someone out there can accept the—what was it, Citibank?

Ms. BOUTELLE. Well, and based on GAO finding this, I did go back to my systems folks, and I asked them to get with the banks and find out if they had anyone receiving a purchase card statement that showed an accounting system that I would call abnormal. We found a few that we're—and it's truly a handful, that we're investigating to see if that's a problem with them accepting the transaction or not. I mean, this CAPS system today accepts a Citi Direct transaction for the Marine Corps. It just hasn't been mapped for the Navy's line of accounting, and that's what's different as you go through this are the lines of accounting, and these bill-paying systems were primarily set up to handle certain services.

Mr. SHAYS. OK. Mr. Bryce, when the GAO found these JSLIST were scrapped, do you know why they were scrapped?

Mr. BRYCE. From what I understand, they were scrapped due to excess in that particular unit that they had been assigned to or given to, issued to, whatever you want to—whatever term you would like.

When the services get the suits, then they determine the priority and who the suits get delivered to. Once those suits are in the hands of the unit, it is very difficult to track what an individual or the unit does with those suits.

And evidently we had a couple of individuals that believe they were doing the right thing by saying these were excess suits and turned them over to the DRMO. We believe that there was a process that may have been missed, which is before you turn an item into DRMO, you would normally go through and check with an item manager within your supply chain management system to find out if they could be redistributed somewhere within your organization. Then if that doesn't happen, then you can move them to DRMO.

So this has become an issue that we haven't gotten all of the information. We don't know exactly why they did it, other than they just thought they were excess.

Mr. SHAYS. Do you know how they were scrapped; in other words, what they did with them when they scrapped them?

Mr. BRYCE. No, I do not have all of that data yet. We are—I have some people that are working the issue, and we are attempting to make sure that, one, we can monitor the Website for no reoccurrences, and if they do, we get them off immediately. But more importantly, we are trying to find out why this happened and how it happened, and I don't have that yet.

Mr. SHAYS. I understand. When you do find out, could you let the subcommittee know specifically what happened to the suits and how they were scrapped? In other words, I'm curious to know did they wind up in a landfill somewhere, as an example?

Mr. BRYCE. OK.

Mr. SHAYS. Let me just ask you a few more questions. Let me just continue with the suit issue. We don't know for certain—you don't know where all the suits are, correct?

Mr. BRYCE. That is correct, sir.

Mr. SHAYS. Which is pretty astounding, but that was true before you had that job, right?

Mr. BRYCE. That's correct, sir.

Mr. SHAYS. OK. And you would like to know where all the suits are?

Mr. BRYCE. Yes, sir, and I—I think we have a way to do that.

Mr. SHAYS. Well, but, see, this is—we were using you as an example of a system, and we thought it was an important product—piece of equipment. We wanted to use that and find out what's going on. I mean, we've had previous hearings where we had masks that simply didn't work, 40 percent of them, and yet we were still issuing them to our military personnel.

So we've had an interest in this, and given obviously the September 11th, we have a greater interest.

You don't, in fact, know if other places disposed of these suits, sold them, buried them, whatever? That is also a fact.

Mr. BRYCE. That is a fact. I could not tell you what any unit after it's issued to the unit does with those suits.

Mr. SHAYS. And the reason is because—well, there are a lot of reasons. One is we should still know what happens to it, but this is designated as D mil. B. In other words, a designation of B allows them to dispose of it if it's excess. So one simple thing is to make sure people know that this isn't disposable, right?

Mr. BRYCE. That's correct, sir.

Mr. SHAYS. How many different places around the world could they possibly be? I mean, do you have a handle on at least the total number, or could they be in a whole host of places?

Mr. BRYCE. Are you referring to where the suits would be, sir?

Mr. SHAYS. Yeah.

Mr. BRYCE. There are thousands of units.

Mr. SHAYS. OK. Fair enough.

Mr. BRYCE. So it's——

Mr. SHAYS. All around the place.

Mr. BRYCE. All around the world, thousands of units.

Mr. SHAYS. With you, Mr. Sullivan, what would happen if you said all transactions have to be electronic? Ms. Boutelle, both of you, I mean, if you were in the private sector, wouldn't the private sector say, no manual, case closed; stay up late at night, but solve the problem?

Mr. SULLIVAN. That's true. You can reduce the DFAS charges. Not only that, but if you pay quicker, you get a large bank rebate. So, I mean, there are incentives to do so. There are some, you know, nonappropriated funding activities that still use a checkbook; I mean, small—welfare and recreation activities that will probably continue to do so. But for large customers that process a lot of invoices, they should be paying electronically, no doubt about it.

Mr. SHAYS. Why couldn't you just say that's the way it has to be, Ms. Boutelle?

Ms. BOUTELLE. Well, I think that's part of the task force and what they're looking at that Bruce is working with.

Mr. SHAYS. Well, no. There's a reason other than that. I mean, the reason is we don't have—we condition—we don't have the equipment to do it electronically, we don't have the expertise?

Mr. SULLIVAN. On the user side, all you need is a computer and access to the Internet, and you're set to go, and on the bill-paying side, all they have to do is be able to receive it. And for most systems, they're already mapped to accept it.

Ms. BOUTELLE. I can take all of the Navy's transactions——

Mr. SHAYS. So the problem is it's the services primarily? I mean, they just simply——

Ms. BOUTELLE. They have to make that decision.

Mr. SHAYS. I wish we could think of a good incentive for them.

Ms. BOUTELLE. I beg your pardon?

Mr. SHAYS. I wish we could think of a good incentive for them. I mean, Mr. Bryce points out that he has basically transaction costs paid by someone else. But if you had a bit more money—actually, you don't have an incentive to have a bit more——

Ms. BOUTELLE. They have two incentives. They have the lower processing cost that DFAS charges, and they also have the one that Mr. Sullivan just mentioned: The quicker they pay, the larger the rebate they get from the bank, and that's quite substantial.

Mr. SHAYS. Yeah, but Mr. Bryce gives me the impression in his outfit he doesn't pay the transaction costs.

Ms. BOUTELLE. Again, a difference between purchase card versus nonpurchase card.

Mr. SHAYS. So the nonpurchase card, they don't pay the transaction?

Ms. BOUTELLE. They pay a rate that is a difference between a manual and an electronic rate——

Mr. SHAYS. I understand that. I'm confusing all of us, I guess. I thought in response to one of my questions Mr. Bryce basically said the transaction cost is paid by someone else other than out of his own budget.

Ms. BOUTELLE. It is who owns the contract, and if it's the service that owns the contract, or if it's DLA that owns the contract—and I'm not real sure who owns those contracts that we pay, but that is who we charge.

Mr. SHAYS. OK. I'm going to just invite the other panel to—we do have votes in 11 minutes. Is there anything that you want to put on the record right now before I just invite the first panel just to come and maybe make a few closing comments? Any comment you want to make, Ms. Boutelle?

Ms. BOUTELLE. I do want one clarification. The Navy general fund, for the most part they are using the purchase card electronic process. It's just the working capital fund portion that has not made that decision, and I didn't want to mislead anyone that the Navy hasn't implemented it in part. It has. So it's about what, Bruce?

Mr. SULLIVAN. Fifty percent.

Mr. SHAYS. Define the working capital fund. You said the working capital fund is——

Ms. BOUTELLE. Those activities that have to recover their costs, much like what DFAS is, that is a working capital fund.

Mr. SHAYS. And they would be what kinds of entities? All throughout the——

Ms. BOUTELLE. Well, there's one that's out at—the bill that GAO selected happened to be Navy supply, and they have an organization.

Mr. SHAYS. I thank you for your patience. Is there anything else you all want to put on the record?

Mr. BRYCE. No, sir.

Mr. SULLIVAN. No, sir.

Mr. SHAYS. OK. I'd like to just invite the first panel just to come. Thank you all very much. Just make some comments, if you would. We don't have a lot of time, so I need to move real quick here. You all are sworn in, and I just want to—we're really discussing more than one issue here. We're discussing inventory control, and we're talking about the purchases and the costs and so on.

If you would, Mr. Kutz, would you just walk me through anything that you've heard that you think needs to be clarified since

I've displayed my ignorance in fine fashion here? Anything that you would——

Mr. KUTZ. Sure. I think they gave you candid answers to the questions you asked. The solving of the purchase card issue would appear to be much more achievable in the short term than the JSLIST issue. I think Mr. Sullivan was accurate in saying that they are moving toward more of the electronic processing of monthly credit card statements. We've seen that in the credit card work we've been doing in the field on all of the services, and I do believe that in the short term they should be able to achieve the goal of having pretty much all electronic processing of the purchase cards.

I think that the solutions to—unfortunately the more important issue with respect to the JSLIST, chem/bio suits, I think that the solutions to fixing that problem are much more difficult, and I don't think that there are really any clear answers as to how they're going to get there at the end of the day, but that is a more important issue, and the answers to that are much harder to get to.

Mr. SHAYS. When I have expenses that I submit to the person in my office who handles this, we end up filling out and literally typing in on a yellow sheet, you know, maybe 10—6 to 8 transactions, and then I have to sign each sheet. That is clearly a manual transaction that we're doing in the House of Congress. Now, I've charged on a credit card, and so there are certain—so maybe everything on my credit card was electronically done, one bill, submitted to us, but we then—when we asked for reimbursement of payment to be made, we're doing it manually. It's kind of interesting.

Any other comments you would like to make, Mr.——

Mr. SMITH. The only other thing I would like to add is just clarify working capital funds. They would be activities such as the repair facilities in the Navy, the repair aircraft, the ships. They fall in the category of working capital funds.

Mr. SHAYS. And they would be continually reimbursed in the fund; they would put in—the money would come to their fund?

Mr. SMITH. And that is what the customer would pay them, and that is how they continually keep operating. If an overhaul of an aircraft costs $50,000, then they would—the activity would pay the Navy industrial fund the $50,000. Then it becomes their working capital to keep on operating and keep on repairing the next aircraft that was down the line.

Mr. SHAYS. Any other comments?

Mr. WARREN. I would just reemphasize the—that the—it seems the overriding issue is the business process and that is really what needs to be addressed as we move forward in this process. I think people talked about having very good systems. There were people trapped in processes that were not working so well, and I think that is what is happening across a lot of the business processes with the Department of Defense, and at this point the primary efforts to address those business processes changes are largely siloed within the Department. And if there was some way to get a dialog started about how you get an integrated approach to addressing that business process change, I think that would be—go a long way toward solving this systemic problem that the JSLIST represents.

Mr. SHAYS. The incentive cost, though, what are the incentive costs for the Department to save money, other than to be ordered? In other words, if you're in charge of a certain budget yourself, and you're putting a lot of manual costs, but it's paid for by others, the transaction costs are paid for by others?

Mr. WARREN. The working capital funds, as we were talking about, the incentive largely is not there, because the working capital funds are paid largely through O&M expenses, and in general the incentives are not set up within that working capital fund process, even though that was the idea. They were to operate as a businesslike activity, and they would have competitive forces, but the reality is for many of those activities, they have become monopolies in terms of—or a single use. Their people have to go to for those services, and so, therefore, the competitive forces can't operate.

Mr. SHAYS. Let me just say I have 4½ minutes to go to the floor. That is why I'm shuffling papers as you talk. Is there any last comment before I get on my way? If not, let me thank you. I'm going to be a little rude and just get out of here, but I appreciate everybody's patience with Mr. Horn going—not returning to Congress, it's even more imperative that others of us get caught up. So I appreciate you giving me this opportunity.

Thank you very much, and this hearing is adjourned.

[Whereupon, at 1:11 p.m., the subcommittee was adjourned.]

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