

A C K E R M A N  
**WAREHOUSING  
FORUM**

*The industry publication dedicated to helping warehouse managers and their bosses improve productivity and manage more profitably with tips, comments and articles written by practicing professionals.*

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## ***Just-In-Case Operations***

By Joseph Martha, Vice President, Mercer Management Consulting

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*Editor's Note: Guest author Joseph Martha originally developed this article for an October issue of the Wall Street Journal. Martha suggests a creative new approach for warehousing and supply chain managers. KBA*

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The 9/11 terrorist attacks in the United States have adversely affected the operations of many suppliers, manufacturers, and retailers as well as the logistics support operations that serve them. What are the most effective methods to stabilize operations in the near term and realign the supply chain for the long term?

### ***Shocks To The System***

“We can’t get the parts on time, so what do we do?” That question is a pressing subject at U.S. manufacturing firms, while suppliers around the world are worrying about the opposite end of the problem. “How do we deliver the parts on time every time when we can’t predict how long they will be delayed in customs as they cross the border?”

They say that you can never be too rich or too thin. But while it may still be true that you can’t be too rich, it’s clear that you can be too thin. In the wake of the 9/11 attacks, thin security has been strengthened at U.S. customs checkpoints along the borders of Canada and Mexico, and at ports and airports. At these borders, the wait for truckers can last for hours and, more important, continues to be highly unpredictable. That delay gets magnified as it ripples along the supply chain: Most truckers are permitted to drive only 10 hours per day, so if half of those hours are spent waiting at the border, they only have five hours left to drive. This can add an extra day to delivery.

In the 1980s, a few U.S. manufacturers took a cue from the Japanese and began to adopt “just-in-time” delivery of materials and components, where inventory arrives at the production line exactly when it is needed. Just-in-time has now been widely adopted across entire industries such as automotive, electronics, apparel, and retailing throughout the United States. The inventories of both raw materials and finished goods are dramatically reduced, with capital freed up for more profitable uses. JIT allows the build-to-order and the replenish-to-sale business models to function at firms such as Herman Miller, Apple Computer, and The Limited.

Tighter security and other measures have caused delays in just-in-time shipment of critical components from sup-

pliers abroad, which has impaired manufacturing schedules and delivery of products with high criticality. Last Fall, Ford Motor had to shut down five of its U.S. plants in part because the company could not get enough engines and drive train parts from suppliers in Canada. Dairy Queen has experienced huge delays in obtaining Canadian confections that are a key ingredient in its ice-cream cakes. Semiconductor and electronics manufacturers that source components from Asia have been hit hard, affecting consumers and businesses trying to buy certain PCs, laptops, and handheld devices. Many other companies have been hindered in similar ways.

### ***Tactics For Recovery***

Because of the continuing need to improve homeland security, expect these disruptions to continue. But you need not abandon just-in-time techniques. In the U.S. auto industry alone, based on data compiled at the University of California at Los Angeles, we estimate that companies have saved more than \$1 billion per year in inventory carrying costs by using just-in-time methods over the past decade. That substantial benefit must be weighed against any recent plant closings or production disruptions.

To avoid the disruptions described earlier, manufacturers, retailers, and suppliers will have to change the way they manage their operations.

- **Inventory management.** Carry a buffer inventory in order to hedge against supply and production line disruptions. And retailers should think about the timing and frequency of their replenishments. Rather than stocking up across the board, however, focus on the most critical inventory components or those that come from a single international source. To be sure, there’s a cost in adding buffer inventory. Before 9/11, Toyota had maintained enough Canadian parts for only one days production at its three U.S. assembly plants. Because of unpredictable border delays, it has doubled its inventory, which raised the firm’s inventory carrying cost. One bright spot, however, is that today’s low rates of interest reduce the cost of holding inventory.
- **Sourcing.** Companies should be more selective about where their critical parts are coming from, and consider the reliability of their delivery logistics in this new environment. The sourcing strategy will need to vary by location, since the issues

raised by sourcing from, say, Mexico, are very different than those in Canada. In addition to working more closely with existing suppliers, companies should investigate purchasing from domestic, even regional suppliers in order to minimize trans-border shipping delays.

- **Transportation.** Manufacturers and retailers must develop broader shipping options. Certain cargo might be prohibited from air passenger flights in the future. Switching to air cargo flights is an obvious alternative, although cargo carriers fly less frequently and may cost more.
- **Warehousing.** Explore options to add more warehouse space to carry the buffer inventory. Due to economic and political uncertainties, flexibility will be an important criterion. Traditional 30-day public warehousing may be better than contract warehousing in this situation.

Since every day counts, you should evaluate all of these options quickly and simultaneously. For example, we must gain more thorough knowledge of security and customs operations along the borders, so that we can adjust delivery routes daily if need be. Chrysler's logistics staff in Michigan, for example, had analyzed their production flow by as early as September 12 and realized that they were in danger of running out of an updated steering-gear unit for the redesigned Ram pickup truck. Chrysler worked intensively with government officials and alternative shippers to make sure the delay in delivering that component was minimized.

Each of these tactics raises challenges. One is finding warehouse space to store the increased inventories. Another is finding domestic suppliers with sufficient plant capacity and quality to immediately take on new orders.

Sorting out which tactics will work best requires that you determine which parts and components have the ability to cripple the rest of the operation. Then, you must assess your options based on factors such as the cost and service impacts of shifting to different forms of transportation, domestic suppliers, or different plants.

### ***Contingency Planning***

Besides these pressing short-term issues, there are longer-term considerations as well. Supply disruptions, greater security, and the attendant delays are not likely to disappear in six months or even a year or two. Business operations will continue to be less predictable. Over the longer term, then, manufacturers, retailers, and especially their logistics suppliers will have to adopt new contingency plans and re-examine their supply chain design in light of the current wartime condition in the U.S.

**U.S. manufacturers** will have to re-balance the costs of inventory, transportation, warehousing, and more domestic sourcing with the greater risks of part delays and plant shutdowns. Their risk models must assign new weights to variables such as supply failures.

For **U.S. suppliers**, the current logistical logjam presents an opportunity for gaining new business. Some trucking firms, for instance, have picked up shipments originally scheduled for rail delivery along the East Coast. They now have the chance to prove themselves to customers and secure longer-term contracts. Third party ware-

house operators have the chance to gain new customers who are re-positioning inventories.

Many **international suppliers**, on the other hand, will need to integrate more tightly with their customers and be open to risk sharing, perhaps by bearing some of the costs of warehousing inventory close to their customers' operations in the United States.

### ***Communication***

Technology can help make the supply chain more flexible, but only with active human intervention. Logistics software and information systems tend to assume a stable environment. These systems produce forecasts based on historical averages. They were not designed to accommodate shocks that change the environment.

So the value of personal communication has risen since 9/11. Manufacturers, for example, need to improve their demand planning with their distributors and retailers, collaborating to get better information about customer demand so they can anticipate problems sooner.

Suppliers also need to keep in close contact with their customers, allowing both parties to monitor sales information and then synchronize production schedules. Given that demand for many products has declined and could drop further, suppliers should take care not to overshoot production and get stuck with excess inventory.

Within your company, people in risk management, procurement, production, and sales should be talking with each other far more frequently than they do today. The best strategies in response to a shock will come from informed business judgment, not a computer program.

### ***Planning For Warehouse Operators***

Given the fact that warehousing can play a critical role in *just-in-case* operations, here are some questions that warehouse managers should ask:

- Do we need additional warehouse locations to control the risk of running out of stock? If so, where should those warehouses be located?
- Should they be private or third-party warehouses?
- What should be in these inventories?
- What procedural changes are needed to handle export shipments?
- What changes are needed for imports?
- How will security precautions change the way we receive, store and ship?
- What changes to communications procedures are needed in this new environment?

Much of what we thought we knew about supply chain management became obsolete on September 11. As we adjust to a new way of moving materials, effective warehousing will play a critical role.

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*Mr. Martha, a Vice President in Mercer Management Consulting's Cleveland office, is leader of the firm's supply chain management practice. He is co-author of Mercer's latest book, "Value Nets: Breaking the Supply Chain to Unlock Hidden Profits." Mr. Martha holds a B.S. in economics from John Carroll University and an M.B.A. from Case Western Reserve.*

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# KEN'S COMMENTS

## *A Value Net For Warehousing*



Two partners at Mercer Management developed an article titled: "Value Nets—the Potential for Transport Companies." They suggest that we grade carriers based on their ability to add value to the shipper. When we evaluate any logistics supplier, by far the most important criterion is the ability to satisfy the customer. After all, the customer is less concerned with price than with solutions.

Mercer does not discuss warehousing, but we certainly can apply this idea to an evaluation of third-party warehousing. All of the criteria used to grade public warehouses are relatively insignificant when compared to the primary question: how well has warehouse management succeeded in creating total customer satisfaction? It isn't even necessary to inspect the warehouse if you have frequent and meaningful interviews with customers and consignees. Remember that the third-party warehouse actually has two types of customers—the shipper who owns the inventory and the consignees who receive shipments. Obtaining feedback from both is critical.

How does *your* warehouse create customer satisfaction? What steps could be taken to increase its customer service value? The best way to answer these questions is to talk to the customers themselves.



## *Warehousing Is Supreme!*

Traditionally all studies have shown that by far the largest single logistics expense is transportation. Therefore we were surprised to see the latest figures from Davis Database, an annual survey developed by Herbert W. Davis & Co. of Fort Lee, NJ. Though transportation remains 37 percent of logistics costs, warehousing is 25 percent and inventory carrying costs are 21 percent. But remember that many warehouse managers are at least partially responsible for inventory management, and every warehouse manager should have some influence on this function. When you combine warehousing and inventory, many warehouse managers may be in control of 46% or the largest slice of the logistics pie.

But the Davis study also represents an opportunity for those of you who feel that you have no control, such as third-party warehouse operators. You have the opportunity, and indeed the duty, to blow the whistle when you see abusive management of inventory, and you have the chance to suggest improvements before your customer does. As a manager, you have potential control of nearly half of total logistics costs. Whether you *really* control them is primarily up to you!

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## WAREHOUSING TIPS

### *Managing With Questions*

David Packard, co-founder of Hewlett-Packard, is credited with originating the concept of "management by wandering around" or MBWA. However, he failed to include the important practice of asking questions. The second phase might be called MBAGQ (Management By Asking Good Questions). Here are some things you might ask workers or supervisors while touring your warehouse:

- Have you seen any operation that looks too complicated?
- Which tasks seem to take too long?
- How long did it take you to learn the job you are doing now?
- Do you see any jobs that seem to require too many people?
- Do you see any procedures that cause damage?

Some questions should emphasize the positive such as:

- What is the biggest success story in your group?
- Who is our happiest customer, and why?

As you start, you will find that new questions are stimulated by the answers you receive. Be sure to note the person's voice, facial expression and body language as each question is answered. This will provide an indicator of both attitude and quality of work life.

### *Coping with Crisis*

It is an unfortunate fact that managers in many enterprises must learn to deal with the anxiety resulting from a crisis. T. L. Quick provides some ideas in *Unconventional Wisdom*. He recommends these five practical tactics:

- Explain and provide reasons for the crisis
- Keep communication lines open between managers
- Provide a time frame for actions and solutions
- Offer frequent feedback
- Reward extra effort

People can handle any crisis if they understand why it happened and how long it will last. Meetings are needed to answer questions and provide reinforcement. Your people will appreciate feedback more than ever during a crisis. Let them know when they have done a great job.



### *Which Jobs Are Hazardous?*

The statistics create a conflict. One study reported that truck drivers are responsible for the highest fatality count of any other worker on the job. However, a U.S. Department of Labor study tracked the number of deaths as a percentage of workers in each job and came up with some very different statistics. Commercial fishing and timber cutting are four times as dangerous as driving a truck. On the other hand, truck driving is five times as dangerous as the average for all occupations.

## Supply Chains At War

By Philip Damas, *American Shipper*, November 2001, pg. 17.

Based on interviews with three recognized logistics experts, this article describes the changes that can be anticipated by the logistics industries as a result of the September 11 attacks. Interviewees were Richard Metzler of APL logistics, Bob Delaney of Cass Information Systems and Laura Jones of the U.S. Association of Importers of Textiles and Apparel. These authorities describe the need for more inventory—\$75 billion more on a national basis. They also call for more emphasis on contingency plans and better security. The textile people are especially worried about the difficulty of maintaining trade relationships with suppliers in Pakistan and other parts of the Mideast.



## Ten Logistics Labor Management Fallacies

*Managing Logistics*, October 2001, pg. 1.

This article digests the contents of a white paper from McHugh Software International which identifies 10 fallacies in human relations management.

- Current warehouse management software already provides labor management information.
- Productivity measurement embodies an old way of thinking about employee relations.
- Labor management systems reduce employee morale and increased turnover.
- The DC manager benefits most from labor management systems.
- Adding labor management to a warehouse management system increases risk.
- Labor management software doesn't add value.
- If we have high-quality supervision, labor management won't provide much benefit.
- Labor management requires too much time.
- Incentives can replace labor management.
- Labor management won't work with unions.



## Logistics Rules of Thumb, Facts & Definitions V

By Dick Morreale and Bob Elliott, available from the author at dickm50@pacbell.net. ©2001, 200 pages, soft cover.

This is the fifth edition of an outstanding reference book with over 500 entries divided among these 12 chapters: warehouse design & construction, equipment, warehousing, transportation, third-party logistics, formulas & tables, inventory, negotiations, customer service, definitions, general, and philosophical. The book includes contributions from over 150 different authors. The book covers the entire field of logistics rather than just warehousing, this book should be in the library of every logistics manager.

## Crisis Management

By Arnold Davis, *World Wide Shipping*, October/November 2001, pg. 24.

The most critical ingredients in crisis management are credibility and consistency. The author has a firm that provides communications strategy guidance for the logistics industry. He defines a crisis as "any situation in which you and your organization are not prepared." A first step is to designate a crisis manager, and that person should not necessarily be the chief executive. The second step is to form a crisis "team." This team should include an expert in the area where the crisis is taking place, a public relations person, a risk manager, sales managers, and lawyers. The process of crisis management is divided into three stages: preparation, short-term management, and long-term management. Finally, the author emphasizes the value of creating a crisis management plan for your organization.



## Purchasing Power!

By Leslie Hansen Harps, *Inbound Logistics*, March 2001, pg. 44.

Based on a series of interviews, this article explains how 21st century technology has changed the procurement process. Purchasing agents do jobs that used to be handled in other departments. In some companies, purchase of third-party warehousing has moved from the logistics manager to the procurement department. Little is written on this subject, however, so the article fills an information need.



## Strange Territory

By Ken Cottrill, *Traffic World*, December 17, pg. 15.

According to this article, the logistics industry will face flat growth in the coming year after a decade of expanding by 15 to 20 percent each year. The author blames lack of growth on difficulties in the automotive, high-tech and retail sectors, although he notes that European based logistics companies seemed to be doing better than those based in the USA. As a reaction to the September 11 attacks, he sees that logistics operators are giving increased attention to operational flexibility and contingency planning. New security measures for imports and exports have also changed the industry.



## Bush Opens Border

By William B. Cassidy, *Traffic World*, December 24, 2001, pg 11.

A bill signed by President Bush in December will allow Mexican trucks to run north of the border as long as they meet U.S. safety requirements. The dispute over Mexican trucks has snarled relations between the U.S. and Mexico for many years.