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THE TRAFFIC MANAGER: HOW IS HE (OR SHE) DOING?

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ABSTRACT

The firm's traffic manager manages the physical flow of goods between different geographic sites. His or her role has changed dramatically in the past several decades because of carrier deregulation, widespread use of computers, and corporate downsizing. The article is based on a recent survey of industrial traffic managers and asks about their duties, and how they are changing. Most were concerned with outbound shipments and the task to which they devoted the most time was negotiating rate and service agreements with carriers.

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INTRODUCTION

The firm's traffic manager is responsible for both making arrangements for and purchasing the transportation services a firm needs to move materials and goods. The traffic manager's choices are important to public sector planners interested in flows of freight. The traffic manager influences heavily the choice of mode of transport to be used; the routes; and the times within which the deliveries must be accomplished. Firms want faster service with frequent, on-time deliveries of small quantities and -- as a consequence -- one sees more trucks more often. This article will give others some insights into the industrial traffic manager's world.

The last two decades brought about many changes in the profession; more changes than many in the field could handle. First was carrier deregulation, which started about 1980. Prior to carrier deregulation, the traffic manager was often faced with identical rates from all carriers; and

carriers, to the extent they competed, competed on the basis of service. Since prices were the same, some traffic managers were persuaded to make choices influenced by carriers' gifts and entertainment, with that practice being described as having: "The route follow the loot." Carrier deregulation resulted in carriers being able to add or drop service areas, change rates, and aggressively negotiate contracts. Traffic managers were challenged to deal with the carriers' new flexibility.

Secondly, computers changed many ways of doing business. There were billions of rates filed under the regulatory system. Their sheer volume, numeric construction and various rules and geographic authorities that were difficult to express in computer language, made it nearly impossible to computerize rates. At first, there was probably a mystique associated to being "too difficult" or "beyond" computerization. Eventually, this mystique became, instead, an eccentricity, and those not using computers were soon considered to be "out of the loop." Forsythe, Johnson and Schneider in 1990 said: "The problem is that top management often perceives traffic managers to be 'technocrats' who live in their own little world far removed from the mainstream of general corporate activities and goals."[1]

Thirdly, while there has been a broad-based approach for many firms to adopt a logistics (now, supply chain management) organizational structure, of which traffic management was surely a part, the traffic manager was often considered to be too narrow in his thinking to head such an operation. A logistics manager had to be more global in outlook and be willing to aggressively expand the size of the organization under his umbrella.

Lastly with the recent move toward outsourcing, top management was told to retain "core competencies" and farm out all other functions to third parties. Relatively few firms considered traffic management a key competency; hence it be came a early candidate for outsourcing.

Having listed some of the forces working to undermine the status and stability of the individual traffic manager, the actual responsibilities did change, often increasing. One pressure was to speed up deliveries and to insist that more of them be "on time." The level of service offered by U.S. domestic and international carriers has greatly improved over the past few decades; and this is in response to the demands of the traffic management community. Freight charges are a declining percentage of our national economic accounts. Traffic managers can take some credit for this, although changes in the nature of products shipped,

increased carrier efficiencies, and deregulation can also be credited.

Of the cost elements of logistics, transportation is still the most important. Davis and Drumm have tallied logistics costs for over two decades, and they reported that, for 1996, logistics costs represented 8.01 percent of sales. Transportation costs were 2.88 percent of sales, followed by inventory carrying costs of 2.32 percent and warehousing costs of 2.09 percent. [2] To the extent one's importance in the logistics hierarchy is related to percentage of expenditures which he or she is managing, the traffic manager would rank first (although persons dealing with warehousing or inventories might be closer to the "pulse" of day-to-day happenings).

The computers that the previous generation of traffic managers avoided have now been fully integrated into most traffic management functions. Routing and equipment control are heavily dependent upon computers, while bar and other codes carefully follow each package through the firm's warehouses, loading and unloading docks, and carrying vehicles. The traffic manager has done his or her share of tightening controls and improving performance along the entire supply chain. The computer software presents information in a format more useful to decision-makers. Gone

are many of the trivial data that once occupied the time of numerous rate clerks.

Contracting with carriers has also brought about a change in the traffic manager's perspectives. Today the contract is negotiated and the shipper enters into a "partnership" relation with one or a small group of carriers. Performance is carefully monitored, with feedback in both directions. The carrier's computerized records are then presented to the traffic manager and his or her associates on a regular basis for their use in planning and decision-making.

The traffic manager is an important player on the logistics team. The geographic span of areas where they make shipments has expanded; many deal with global markets and global sourcing.

The majority of this article is based on a survey of traffic professionals. After the survey is described, there will be discussion of how the traffic manager spends his or her time; which traffic manager activities appear to be substantially changed; and which seem to be more or less the same as a decade or two ago.

THE SURVEY

Using labels supplied from the Council of Logistics Management roster, 625 names were chosen that had either "traffic" or "transportation" in the title. A very detailed four-page questionnaire was sent to each. There were 76 usable responses received for a response rate of just over 12 percent. Respondents fit in categories of manufacturer, wholesaler, or retailer, and most were positioned at the "corporate" level within their firm.

The firms in the sample made a median of 12,250 inbound shipments, 36,000 outbound shipments, and 2,650 interplant shipments in 1996. Twelve of the respondents each made over 100,000 outbound shipments, and five of the respondents each received over 100,000 inbound shipments. One made over 100,000 interplant shipments.

THE TRAFFIC MANAGER'S TIME ALLOCATION

Respondents were asked how they divided their time between customers, vendors, etc. Here are the answers: subordinates, 28 percent; peers within company, 18 percent; vendors, 17 percent; customers, 13 percent; superiors, 11 percent; third-party providers, 10 percent; and other, 3 percent.

They were also asked to divide their time according to whether it was devoted to outbound, inbound, or interplant

shipments. Median percentages were outbound, 68; inbound, 22; and interplant, shipments, 10.

A general question listed all of the traffic manager's functions as listed in most textbooks, and asked respondents to indicate those with which they were involved. Here's the list with the number of respondents (out of 76) who indicated that this was one of their activities in the year 1996:

appearing before rate bureaus or classification committees, 9
billing and auditing, 52
carrier selection, 55
carrier assignment, 42
demurrage and detention, 29
documentation, 44
expediting and tracing freight, 48
freight claim prevention, 37
freight consolidation, 27
hazardous material shipments, 17
human resource functions, 39
loss and damage, 37
private fleet management, 26
rate analysis and determination, 52
rate and service negotiations, 57
routing, 40
transit privileges, 3.

Here's a weighted distribution of how respondent traffic managers devote their time by function. The number of respondents performing a certain function and the hours they spent were added to calculate the number of hours they all spent on each function; the total hours of all respondents spent on all tasks were added. The total hours spent on each function was divided by the total hours spent on all functions. Here is the percentage time distribution for 1996:

rate and service negotiations, 20

rate analysis and determination, 14

carrier selection, 13

documentation, 7

expediting and tracing freight, 7

human resource functions, 6

carrier assignment, 5

routing, 5

freight claim prevention, 4

freight consolidation, 4

loss and damage, 4

private fleet management, 4

demurrage and detention, 2

hazardous material shipments, 2

billing and auditing, 1

transit privileges, and appearing before regulatory agents, less than one percent.

LaLonde, Masters, Maltz and Williams looked at the traffic manager's time allocation in 1990 and reported these percentages: rate negotiation, 23; carrier selection, 14; private fleet management, 14; billing and auditing, 10; carrier assignment, 9; routing, 9; expediting and tracing, 7; and claims, 6.[3] The changes since 1990 are slight, and some explanations can be offered. Less time is spent on negotiations since both sides are more familiar with the process. Secondly, the shipper may be dealing with fewer carriers. Less time may be spent on private fleet management since firms are giving up their own fleets. Our own respondents indicated that their truck fleet holdings were and would be declining in the 1990-2000 decade. Billing and auditing would have declined because of increased dependence on contracts and on computers. Carrier assignment and routing decline because of using a smaller number of carriers. For users of railroads, the number to pick has decreased.

CHANGES IN THE TRAFFIC MANAGER'S WORLD

We can break our discussion of traffic manager's role and activities into two; the first would be where there have been substantial changes, the second would be where there were fewer changes.

One new management tool used throughout the firm is the "mission statement," and slightly less than half the respondents now feel guided by such a statements. Some provided examples:

> To secure the transportation necessary to deliver the service requirements of the corporation at the lowest cost; and to provide technical support to the corporation on matters related to the movement of materials, supplies, and finished goods.
>
> To provide world class support/service while adding value for our material handling and traffic customers.
>
> The _____ team -- dedicated to customer satisfaction through quality products and services with respect for employees, the community and the environment.
>
> The goal of the transportation department is to ensure that all material arrives at the factory or customer at the proper time, and in good condition. It is our responsibility to achieve and maximize internal and external customer satisfaction through efficient and effective routings, carrier and information management, and prompt handling of emergency requests. The department will strive for total customer satisfaction, while focusing on improvements in operations that lead

to a better service at a lower total cost to the company.

At one time, most traffic managers were I.C.C. practitioners, meaning that they could participate in the quasi-judicial hearings presided over by I.C.C. examiners (administrative law judges). Only nine respondents indicated that they had participated in hearings since January 1, 1995 (when intrastate motor carriers were deregulated). Bodies before which they did appear included U. S. Department of Commerce Foreign Trade Zone Board, a DOT committee working on hazardous material regulations, and a House of Representatives subcommittee hearing.

About three-quarters of the respondents indicated that arrangements for international shipments were now within their area of responsibility. A few commented that their area of responsibility included only traffic between the U.S., Mexico, and Canada. Several indicated that this was one direction toward which the field was moving. Another commented that international traffic management "still needs work -- seamless does not mean uncomplicated."

Just-in-time practices have both reduced transit times and improved the performance of "on-time" deliveries. The traffic manager once waited for specific railroad cars to arrive within a range of two or three days. Today's motor

carrier is much more disciplined. Respondents reported the average opening of their delivery windows to have a median value of only four hours. The average window was nearly 11 hours, but this was heavily influenced by one respondent (in the forest products industry with a five-day window who commented: "We require railroads to deliver on a certain day +/- 24 hours. They never do.").

"Partnership" arrangements with carriers are important and utilized by 85 percent of the respondents. About the same percentage of respondents indicated that they imposed service standards on carriers serving them. Two-thirds of the respondents actively worked with carriers to develop and maintain the carriers' "quality" programs. Half of all respondents used EDI (electronic data interchange) for some of their communications with carriers.

Many of those respondents who said that they monitored carrier performance used EDI to do so with one example being to measure the time that a bill-of-lading was "open" or "live" -- meaning the goods were in transit. One respondent used satellite tracking. Another indicated that contract with carrier provided for: "Deductions taken for late arrival or no arrival, and credit given if delays are at our plant." Still another said: "We expect 98 percent on time deliveries; if not, carrier put on 2 to 6 week probationary period." A number relied on carrier reporting although some

made comments that questioned the accuracy of that practice. A few relied on customer complaints.

Product, package, and material coding is important to the supply chain concept as well as to accurate handling within the firm. Over two-thirds of the respondents indicated that they used bar codes and about one-quarter reported using the newer two-dimension codes (that store considerably more data).

A question asked: "Has the product and packaging recycling movement brought about any changes in the traffic management function at your firm?" About one-third answered yes, the remainder, no. Comments from some answering yes included:

Changed inbound/outbound flow balance.

There is less bulk in packaging, and packaging material has higher percent content of recycled materials.

Less packaging means we have to use air ride trailers.

Newer packages cannot be loaded as high.

A result of handling materials in bulk, rather than packaged state reduced number of carriers we can use.

I have become more involved with packaging design and choice of materials to be used.

And three indicated that they now used returnable crates.

Lastly, the threat of having a third party take over the traffic manager's duties is real. A question asked: "To your knowledge, have third party transportation/logistics providers approached your company with the suggestion that they might take over your functions?" Over three-quarters of the respondents answered in the affirmative. One commented: "They're only looking to skim the cream," and another observed: "Everyone is selling an 'inclusive package' because of the marginal performance and low caliber of most traffic managers who are process-oriented." Several indicated that third-party providers did perform some traffic services for the firm such as load planning, managing container returns, and paying carriers.

WHAT SEEMS ABOUT THE SAME?

A number of activities seem unchanged from a decade or two ago, although possibly they take a different amount of the traffic manager's working day.

LaLonde et. al. did not include freight consolidation; and our own survey showed that it did not involve many traffic managers and those that it did spent little time with the task. This was surprising to the co-authors, based on their own experiences and "real-world" contacts. (An old traffic manager "joke" dealt with the traffic manager at work, unaware that his time on this earth had come to an end, who saw the angel appear, saying: "We're making up a load." "But I'm not ready to go yet," exclaimed the startled traffic manager. "We're making up a load, NOW," said the angel, forcefully, and the traffic manager dutifully followed.)

The increased use of computers for inventory management and shipment scheduling has taken some of this burden from the traffic manager's shoulders. In a question about whether that traffic manager routed the traffic or merely tendered it to a carrier; a reason sometimes given for routing was to achieve consolidation. A shipper of toys and sporting goods routed international shipments in order to accomplish in-route consolidation.

The common carrier obligation, dating to English common law, was the foundation of all carrier regulation, and served as the basis of the old-time traffic manager's view of his transport world. A survey question asked "In your opinion, what is the status of the 'common carrier

obligation'? Do you still rely on it?" Twelve respondents claimed they did not understand the question, and 13 answered "yes," with one commenting: "You betcha! As railroads continue to diminish in number the common carrier obligation will be all the more important." Thirty-six indicated that they did not rely on the common carrier obligation but within this group 15 said that the reason was that all their shipments move under contract. One of these indicated that he or she used the obligation as a starting point for carrier contract negotiations.

Years ago, one heard the term "storage-in-transit" which had two meanings. The first, or formal meaning, was a practice allowed by a provision in a rail tariff that meant that the goods could be placed in a warehouse somewhere between their initial origin and final destination.[4] The informal meaning described a practice that took advantage of railroads' notoriously slow service and used them as temporary warehouses. This was common in seasonal industries which produced a year's supply of a product within period of a few weeks. While just-in-time thinking and storage-in-transit thinking are not directly contradictory, it's hard to think of them together. A question on the survey form said: "Just-in-time does not apply to all markets. Does your firm ever pick slower carriers or a longer route to receive advantages of storage-in-transit?" One-third of the respondents answered "yes," accompanied with comments such

as: "When merchandise is not hot, we generally route shipments intermodal," "We use boxcars and low priority intermodal," "We ship by rail to get longer transit time," "We shift from truck to rail to slow delivery," and "Domestically we'll often instruct our inbound motor carrier to slow things down; internationally I do this with carrier routings with my freight forwarder." Very little has been written about storage-in-transit in recent years, yet we can report that the practice is alive and well. In this instance, the traffic manager's world may not have changed at all.

Loss and damage continues to be an issue. Loss and damage involved an average of 1.1 percent of all the respondents' shipments; and the value of loss and damage equalled an average of 2.7 percent of the shipments' value. A question was asked about handling claims and some answers were unchanged from what they might have been years ago.

> Notify carrier, await their inspection, determine salvage and disposition, file claim.

> As provided in bill of lading.

Some indicated there had been changes:

> Filed by EDI based on product's retail value.

A third party logistics provider handles our claims.

By contract, insurance deductible shared with carrier.

Claims packages are put together by the tracing group who give customer credit. The claim is forwarded to the traffic group who enters the claim into a software package which forwards it to the carrier.

Several indicated that they did not file claims of less than specified amounts, ranging from $50 to $500, because of the time and effort involved.

Routing has always been an important traffic function and one of the survey questions asked: Do you generally "route" shipments (i.e. specify the route) or do you just tender the shipments to a carrier? The answers were evenly split although some respondents indicated both, accompanied by comments such as: "Route rail and intermodal, tender to truck," or " route international, domestic tendered to packaged freight carrier." Other comments were:

We use a software package that rates and routes and recommends carrier.

Route for consolidation purposes or to find backhaul loads for carriers.

Routes needed for hazardous materials.

We route via ZIP codes and weight break parameters.

We set up carriers on specific routes with backup availability. For LTL we have designated a single carrier nationwide and penalize suppliers who use other carriers.

In this last situation, the traffic manager is consolidating his or her inbound shipments. The LTL carrier will consolidate all inbound shipments in his terminal at night, and then make a single delivery the following day.

Private fleet management continues to be a traffic manager task. Two-thirds of the respondents' firms operated auto fleets, and eleven traffic managers were involved in the management of the auto fleets. Slightly over half of the respondents' firms operated private truck fleets. The respondents with private truck fleets reported owning a median size fleet of ten truck-tractors or trucks and 30 trailers. (The mean values also had the same relationship of trailers being three times the number of truck-tractors or

trucks. Our guess is the firms were loading one trailer, unloading another, and hauling the third.)

A third of the respondents' firms own corporate aircraft, but only one traffic manager was involved in managing the corporate aircraft operation. This could be interpreted to mean that the traffic manager is still a long way from the top.

SUMMARY

The traffic manager lives on and keeps his or her important role in transportation by linking the carrier to the freight. Leaving behind the mountains of published tariffs has helped the traffic manager shed most of the eccentricity associated with the role. The danger of losing one's post to a third-party provider is helping keep today's TM lean and mean. Here are closing comments from two respondents, both of whom appear uncertain.

> Activities will completely change by 2000 with the implementation of a 3rd party logistics provider. I don't know what facets of my job will be important by that time. This job did not exist in 1990.

> As the years pass I seem to be expected to manage less and do more myself.

[1] Kenneth H. Forsythe, James C. Johnson and Kenneth C. Schneider, "Traffic Managers: Do They Get Any Respect?" Journal of Business Logistics (Vol. 11, No. 2, 1990), p. 88.
[2] Herbert W. Davis and William H. Drumm, "Logistics Costs and Customer Service Levels 1996," Council of Logistics Management Annual Proceedings 1996 (Oak Brook: CLM, 1997), p. 152.
[3] Bernard LaLonde, James Masters, Arnold Maltz and Lisa Williams, The Evolution, Status, and Future of the Corporate Transportation Function (Columbus: The Ohio State University, 1991), p. 107. Their given percentages total 92.
[4] Leon Wm. Morse, Practical Handbook of Industrial Traffic Management, 7th ed. (Washington, D.C.: Traffic Service Corporation, 1987), p. 129.