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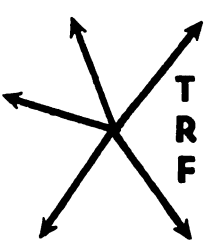

TRANSPORTATION RESEARCH FORUM

Transportation Industry Problem Areas And Power Relationships

*by John W. Drake**

INTRODUCTION

THE AMERICAN transportation picture is so diverse, so complex, so all pervasive in the economy, and so seemingly riddled with unsolvable problems that one often despairs of thinking of it as a whole and lapses into more detailed consideration of narrower aspects and individual problem areas. And *problem* areas it always seems to be. How long has it been since our transportation industry could have been spoken of in a largely favorable light? When was it last that, like electronics, computers, chemicals, oil or many other industries since World Wars I or II, transportation could have been spoken of as a burgeoning, profitable, innovative, industry making rapid strides in better serving society and improving the quality of life? On an overall basis including, private auto, perhaps as recently as the late 1940's. Looking at common carrier alone, from the standpoint of all modes, it is unlikely to have been true since the 1920's. Certainly some modes such as truck, pipeline and air have made rapid strides since then, but others such as rail were stagnant. Then other modes developed problems of other kinds; labor, management, ecological, technical, etc., until now, though a large and critical segment of our economy, often estimated at 20% of the GNP (including all the round-by-round multiplier effects in an input/output sense), transportation seems to account for more than 20% of our chronic problems.

What are these problems? It might be instructive to:

1. lay them all out
2. gauge the severity of the problem by mode
3. suggest possible preferred solution, and
4. especially, to indicate who the actors are, who must lead and who must budge

A POINT OF DEPARTURE

Table I attempts to do this on an overall basis. I do not pretend for a minute that everyone is going to agree with all the ideas of Table I. This is not its purpose. A major difficulty with the transportation industry today is, in fact, that so *many* interests are involved in any significant problem that the political process of consensus seeking takes so long and produces such marginal improvements that the problems largely remain and no one is really very happy. Thus the purpose here is not to try to achieve a consensus, but

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OVERALL TRANSPORTATION INDUSTRY PROBLEMS

	PROBLEM	POSSIBLE PREFERRED SOLUTION	PRIMARY PARTICIPANTS REQUIRED FOR SOLUTION — LEADER(S) — FOLLOWER(S)	PROBLEM SEVERITY BY INDUSTRY AREA (3=High, 0=None or neg., --=Not ap.) RAILROAD	TRUCK	AUTO	HIGHWAY	UTIL	AIR	AIRPORT	WATER	PIPELINE	MULTIMODAL	TOTAL
1.	Regulatory Restrictions	Relax (except in true monopolies).	GOVERNMENT → INDUSTRY, LABOR; ACADEMIA → INDUSTRY, LABOR; SHIPPERS → INDUSTRY, LABOR	3	3	1	-	-	3	1	2	2	2	-	17
2.	Management Narrowness	Infuse many young, non-engineer, non-finance, non-law graduates into carriers, e.g., sales, labor and planning types. Also bring in experienced managers from more modern industries.	GOVERNMENT → INDUSTRY, LABOR; ACADEMIA → INDUSTRY, LABOR; SHIPPERS → INDUSTRY, LABOR	3	2	2	2	3	1	3	3	1-2	1	2	22
3.	Rate Restrictions & Value of Service	Relax (except in true monopolies). Go to cost-based rates in 5 years.	GOVERNMENT → PAX; PAX → SHIPPERS → INDUSTRY, LABOR; ACADEMIA → INDUSTRY, LABOR	3	2	-	1	3	2	3	2	3	1	2	22
4.	Labor (Work Rules and Settlement Processes)	Repeal "full crew" -type laws subject to reasonable job protection. Rebalance negotiation process to give carriers more power.	INDUSTRY → LABOR; INDUSTRY → GOVERNMENT → LABOR; SHIPPERS → GOVERNMENT → LABOR	3	2	2	1	3	2	1	3	2	1	-	20
5.	Structural Cost Inequities	Remove inequities whose social purpose is long since past. Make user charges more in line (e.g.) waterway). Subsidize rail right of way burden.	ACADEMIA → LABOR; ACADEMIA → OTHER MODES; RAILROADS → GOVERNMENT → OTHER MODES; SHIPPERS → PAX → OTHER MODES	3	1	1	-	2-3	1	2	2	3	1	1	17
6.	Planning	Introduce broader more sophisticated, probabilistic planning with more social and political.	ACADEMIA → INDUSTRY; SHIPPERS → INDUSTRY; GOVERNMENT → INDUSTRY; INDUSTRY ↔ LABOR	3	2	1	3	3	2	3	2	2	2	3	26
7.	Marketing	Reorient marketing to selling carriers' true overall advantages, rather than just rates. Upgrade management to analyze logistics problems rather than rates & routes	SHIPPER → LABOR; SHIPPER → INDUSTRY; ACADEMIA → INDUSTRY; ACADEMIA → GOVERNMENT; MANUFACTURERS → GOVERNMENT	3	2	0	0	3	0-2	1	2	1	1	1	15

8.	Finances	Establish what services are desired by society regardless of ROI, segregate and subsidize. Permit abandonment of others.		3	2	0	0	3	2	2	2	1	0	2	17
		Provide large govt. loans or loan guarantees, if necessary to get to a new, better, stable operating point (i.e., BOS-NYC-WAS, HSGT).												
9.	Technological Innovation	Optimize rate of technological innovation. E.g., more rail, marine, urban. Less air.		3	2	1	2	3	1	2	1-3	1	1	2	20
10.	Intermodal Coordination	Through standards, deregulation, tech. dev., financing, info. sys., etc., promote intermodal flows.		2	2	3	2	3	2	2	2	1	1	2	22
11.	Industry Structure	Deregulate merger and entry, subject to normal antitrust laws and some gradually disappearing job protection clauses.		1	2	0	-	-	1-2	-	1	1	1	-	7
12.	Foreign Competition	Establish what is truly essential to US interest and subsidize, contract, finance etc., if necessary, to get that only.		0	0	1	-	-	3	-	3	0	0	-	7
13.	Environmental & Ecological	Conduct research and establish standards for all modes on uniform integrated bases.		2	2	3	1	3	2	2	1	1	1	1	13
14.	Research & Data	Establish desired levels of long, medium and short time-horizon research and fund on more planned long term basis, concentrating on fewer groups to build competance		2	2	1	1	3	1	2	2	2	1	2	19
15.	Image	Accomplish above reforms in an organized manner and truly raise quality of service per dollar.		3	2	1	1	2	1	2	2	1	1	2	18

TABLE 1

rather to stimulate discussion, and hopefully action, toward throwing more light on industry problems so that more progress may be made in each iteration—progress enough to result in measurable improvement rather than simply slower decline.

A PROBLEM OF SOLVING HARD PROBLEMS

The nature of many of the problems is important to note, however. This is their need for much greater efforts to get out of the present difficulties than were needed to get into them. There is a phenomenon in electrical engineering which is in effect analgous : hysteresis. In electrical terms it relates to the fact that the same electrical current which will produce a magnet of a given strength when the current is increasing will not produce one of the same strength when the current is reduced once again to the same level. There is a built-in lag so that unlike many phenomena which are reversible along the same path, this is not. Hysteresis is a common, but often unrecognized phenomenon. It occurs, for example, in social interaction. Three examples are given below.

Many of the problems mentioned in Table 1 exhibit this characteristic, making a great deal more push, talent, funds, and patience necessary to correct matters than would have been needed to keep them from deteriorating in the first place.

AN ANALYSIS OF THE ACTORS

It is worthwhile examining the participation required for solution of some of these problems in terms of who must do what to whom, if it may reasonably be expected that neither the industries most dismally affected, nor their labor forces, cannot seriously be expected to somehow "take the pledge" and reform themselves, by themselves, even if they could—which to a considerable extent they truly cannot do today.

A thing which strikes one immediately is the large and important role academia could and should play if it will. To do so, however, it must, by and large, get out of its scholarly journals and bring its thoughts to the broader marketplace of ideas, where the other actors will hear. If one doubts for a

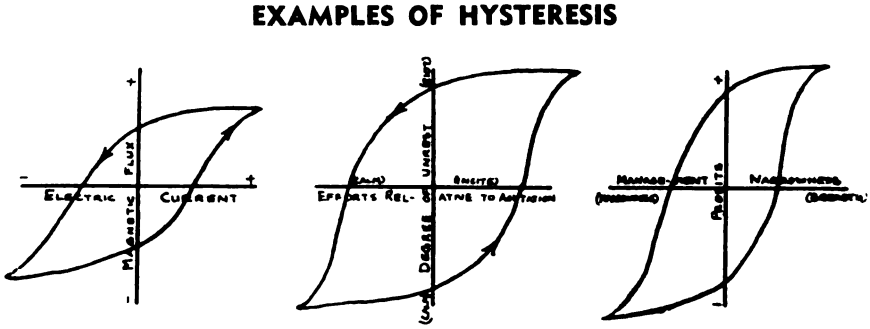

FIGURE 1

minute the power of academia to effect change, think of the enormous impact no-fault auto insurance is having on one major segment of our industry. A paper here (at TRF), for example, is worth ten in *Transportation Science*. An article in the *New York Times Magazine* is worth ten papers here.

Academia must accept the responsibility for a great deal of leadership. It must not shirk its task and simply sit comfortably aside pointing fingers at the other participants, which has been the case to a considerable extent up to now. It must be more imaginative and more forceful in designing "applied" research projects, and in presenting these to sources of funds. There is no lack of enthusiasm in government, for example, for good research proposals. What drives government people frantic, however, are projects which have no use when completed, so that at the end one says "What the hell did we do this for?"

GOVERNMENT

This brings us to the government as an actor in the process of transportation problem solving. Though D.O.T. is a major factor here, and perhaps the leading agency in problem solving efforts there are, of course, a myriad of other agencies involved, not the least of which are the I.C.C., Maritime, H.U.D., H.E.W., D.O.D., and the Office of Management and the Budget.

The government can, and must, provide a great deal of push necessary to move ahead on some of these problems. It is naive, however, to think that they either can, or may, act as the leaders in all problem areas. In an area such as technological innovation without great political overtones they may, and should, be among the leaders. In an area such as finances which though involving ideological problems for some, does not raise serious political problems they may also be initiators, stimulators and pushers.

Other areas, however, such as those of labor legislation or the structure of the industry the administrative branch of the government simply cannot realistically be expected to lead. These questions are too politically charged. Large bodies of voters and contributors are affected. Thus, in such areas, the government needs help from the other actors so that it may "bend to demands," rather than have to put its head in a noose by initiating reforms itself.

In areas such as planning, and the image of the transportation industry, the situation is somewhere in between. It is appropriate for the government to take a good deal of guidance from the other participants but it may do much itself.

THE SHIPPERS AND PASSENGERS

The lethargy of transportation managements has often been the subject of comment but it is probably exceeded by that of the users. Nevertheless, without meaningful participation by the shippers and passengers, improvements will come much more slowly. The problem, of course, is that the users are almost completely unorganized. Their trade associations are primarily concerned with other matters, and are too numerous to be effective.

shipping associations likewise are too small and numerous. There are no effective, really broad-based groups: no "Carload Shippers Association, no Motor Carrier Users Group," no "Intercity Common Carrier Passenger Travellers Association." About the only partially effective group there is, is the American Automobile Association, and it has a very small market penetration.

The problem with encouraging shippers to take a more active role in general, is that you run into the traffic managers who should be the people one would like to see involved but who are not. With the exception of a minute fraction of the traffic managers who, with their superiors, really understand the transportation and distribution function within their companies as part of an overall system, most traffic managers are highly constrained clerks making substantial monetary decisions.

They are not asked about plant location, etc. All they are asked to do is keep the freight bill down without getting too much stuff there too late. That is their punishment and reward system and they (sub-) optimize within it.

The other actors especially the government and academia must press industry hard at the top levels to join in consideration of transportation industry problems: to come themselves, not to send their traffic manager. This can gradually force them to think about the importance of the function and to give transportation and logistics a greater role in company planning.

At the same time the truly progressive logistics officer must work on an inter-industry basis to join transportation debates again, not just in their own journals but out where they will be heard. They must come to, and invite academicians to visit them, and they must pound the corridors in Washington, both on the Hill and in S.W.

THE INDUSTRY

You are probably thinking, "Will he never get there?" Well I am here. Frankly, I think that aside from the airlines (possibly) and the truckers (also possibly) the industry is too far gone along the downward spiral of declining service, feelings of helplessness, resulting poor image, inability even lack of desire attract really questioning new blood, declining service, etc., to be able to pull themselves up by their own bootstraps and join as vigorously in the necessary dialogues and *actions* within their own firms as is needed. The way in which the few prophets who have entered appeared (many of whom are here today) stand out from the crowd is ample indication of the dismal state of the industry today. You are outraged at such a suggestion? You've heard every one say at a thousand dinners "No industry has a finer group of people than ours . . . ?" Well they are fine hail-fellows-well-met but that doesn't get the industry out of problems; all it does, at best is switch traffic from ABC railroad to XYC trucklines. Do you think for a minute, however, that these people could have managed something requiring calculated risk taking and broadscope, the space program for example? Why, they would still be arguing rates and routes!

Industry managements today *just as shipper managements* are going to need pushing, to join together in shaping a new industry along modern lines rather than continuing the hand wringing about how sacred our "free" wa-

terways are, how truckers ought not to handle commodities like steel, or how un-American it is for foreign ships (like the Prince of Fundy) to prosper in American-Canadian waters. Better they start to consider such things as why a shipper whose car arrives a day late gets mad when told that the *train* it arrived on was on time. Better ponder the question of whether one of the reasons for railroad decay was not the purchase of cars and facilities which were too well built and then assuming it was necessary to get every last ounce of use out of them. Where would the airlines be today if they were still operating their Fokkers, Fords and DC-2's and 3's just because they could keep them in service (which they could)?

Who will push the management to think along new lines? Sometimes it will be the most advanced shippers but more often it will be academicians and the government. The push can, must, and I believe is, coming from them.

LABOR

Labor is often spoken of as the big bug-a-boo. In some respects it is, but the memory may be more vivid than the reality. Rail productivity has doubled in the last twenty years for example. Nevertheless it is the case, I assert, that in transportation, just as in some other industries, notably construction, labor power is so great as to seriously unbalance the industry, indeed the economy.

The implication is that this power balance should, be readjusted and indeed it should but I believe there is a subtle point to be considered here. I personally believe that labor, among the surface carriers is more amenable to change than management. In other words I don't believe that it is sheer power that has brought labor to its present position, but wits too. Therefore merely taking power away from unions or giving more to management would be attacking the symptom and not the disease. Thus I am not convinced that early attempts to redress the power balance are very worthwhile. When managements have been broadened and strengthened it will be time enough to see whether there is the need for very substantial labor legislation. In any event, I believe, that once again the push for legislation or the push for restraint will come from the government and from scholars.

CONCLUSIONS

The most important thing, perhaps, is to speed up the process of change. The greatest single source of atrophy and decay in the past has been inbreeding—in industry, in government, in academia, among shippers, and in unions. This is changing rapidly. There are more people changing hats today than at any time since, and probably including, the early days of the New Deal.

The formation of the Department of Transportation has brought a great number of people together from industry, the government and the universities. Unions are hiring more economists. Carriers are more willing to listen to consultants—even the Penn Central which, before the "wreck," like the Cabots, spoke only to God. Lastly the universities are hiring more people from industry (though few from government or the unions) and the dialogue

between their engineering, business, economics, and political science faculties is very rapidly increasing. Take myself, for example. I am from industry, and though I have the academic degrees and a couple of hundred consulting studies as evidence of competence, twenty years ago I would have had a hard time getting a job as a doorman at the faculty club since I have very few articles in referred scholarly journals to my credit. Now the attitude is "Write? Sure, but meanwhile, teach something about what is going on out there!?

It's a good sign.