



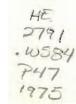
This Address was delivered at a National Meeting of The Newcomen Society in North America held at New York City when Mr. Alfred E. Perlman was the guest of honor and speaker on December 12, 1974.

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"If you've done something the same way for two years look it over carefully, after five years—suspiciously—and after ten years its time to do it another way."

-Alfred E. Perlman

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Western Pacific Railroad

"The Feather River Route"

ALFRED E. PERLMAN

MEMBER OF THE NEWCOMEN SOCIETY
CHAIRMAN OF THE BOARD
THE WESTERN PACIFIC RAILROAD COMPANY
SAN FRANCISCO



THE NEWCOMEN SOCIETY IN NORTH AMERICA

NEW YORK DOWNINGTOWN PRINCETON PORTLAND

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INTRODUCTION OF MR. PERLMAN AT NEW YORK ON DECEMBER 12, 1974, BY MR. JAMES O. BOISI, EXECUTIVE VICE PRESIDENT, MORGAN GUARANTY TRUST COMPANY OF NEW YORK

Members of The Newcomen Society:

NCE upon a time—exactly 72 years and 20 days ago—male child was born in St. Paul, Minnesota. His boy hood years were those typical of any western America boy. However, he came east for his college education and we his Baccalaureate Degree at Massachusetts Institute of Technology.

Almost immediately after graduation, with engineering degree in hand, he went back to the middle west and took up the hono: able profession of railroading. He has been in it ever since—no withstanding the year or so he spent with government—but eve that was the railway division of the R.F.C.

In 1923 he started his career with the Northern Pacific Rail way in Montana with a year's stint as a track laborer.

In 1936 he was loaned to the Denver and Rio Grande to hel work out their reorganization plans. He married and stayed i Denver for 18 years and worked his way up the ladder through Chief Engineer, General Manager and eventually Executiv Vice President. However, the call of the east was too muc for him, because in 1954 he returned and became President (the New York Central system and in 1970 retired from th Penn Central Company as Vice Chairman of the Board. But re tirement isn't in his nature. He immediately went west and toc up the Presidency of the Western Pacific Railroad Compan where he is today. You can see he is a dedicated railroader. H virtually lives on the railroad for months at a time, giving cor centrated attention to costs, operations and other management activities. In his courage, determination and diligence he has ur covered and routed out long entrenched inefficiencies and has di played extraordinary all-around executive qualities in all depar ments of a railroad.

He is famed throughout the world for his railroad operating abilities. He has relocated classification yards; through model

electronic signalling he has reduced track mileage with substantial savings in maintenance and taxes; he speeded up freight service through the introduction of new electronic yards; he introduced cybernetics into railroad operations; he mechanized maintenance of way and maintenance of equipment operations. He insisted on the development of better communications and data processing. In short, he is a master of railroad operations.

Nonetheless, I prefer to think of him as an outstanding manager of men. If you will, permit me one personal reference to illustrate.

Almost 20 years ago, in a beautiful office atop a handsome skyscraper in midtown New York, four men were engaged in a conference. As we enter upon that scene, one of them, the foremost real estate impresario of his time, was in the midst of explaining his proposal for the construction of a magnificently designed, forward looking building. When he concluded his presentation, the second man, the Chairman of the Board of the company, applauded. In his opinion, this was a creative and imaginative proposal. He liked it and asked the President of the company if he didn't agree. Before answering, the President turned to the fourth man in the room and asked for his opinion. The young man gulped, took a deep breath and began to explain the reasons he thought the proposal was not viable and recommended that it not be accepted. The President turned to the Chairman and said, "Well, you have heard my real estate man's view. I respect his judgment. I recommend against the project." With that, the meeting came to an end.

This was typical of the President, he is a tough taskmaster; he expects his officers to know their business and he backs them up to the hilt. I was the young man in the vignette. So, you see, without taking away any of his well-deserved fame for operational capability, the reason I prefer to remember him always as a great manager of men.

Who is this man? Who was the President in that scene we've just witnessed? It is the man we honor tonight and whom I am pleased to introduce as our main speaker, Mr. Alfred E. Perlman.

Society and see so many of my good friends. Some twenty-five years ago the dedicated father of our present President, Charles Penrose, Sr., of beloved memory, came to Denver to request my assistance in forming a Utah and a Colorado Committee of The Newcomen Society. It was vaguely hinted that there were steam engines somehow involved. So that gave the senior Penrose a green light.

After the Committees were established, he persuaded me to give what became probably a lengthy address at Buffalo, to describe mountain railroading to the local patrons of the water level route. They afterward politely hinted that, orally, my terminal facilities were as bad as those of John Barriger.

Thus, my first large expenditure as President of the New York Central five years later, was for new terminal facilities at Buffalo. And I hope for your sake, tonight, that mine, too, have been improved over the years.

The December Newcomen Bulletin gives a thumbnail sketch of the early history of the Western Pacific Railroad. To be able to spend more time on current topics, let's skip to November 1931, when Arthur Curtiss James strengthened the transcontinental line from Oakland, California to Salt Lake City, Utah, by the addition of valuable feeder lines and a north-south main line connecting the Southwest with the Northwest.

Then came the historic depression of the early thirties. One after another of the Nation's railroads became insolvent. The Western Pacific defaulted on its bond interest in 1935.

The Reconstruction Finance Corporation requested a plan for reorganization, and provided funds to help carry out a three-year rehabilitation program. Thus, the outbreak of the Second World War found the Western Pacific physical plant in greatly improved condition to handle the vastly increased military traffic. A financially strengthened railroad emerged from receivership at the end of 1944.

In the latter part of the sixties a series of events which culminated in the bankruptcies of seven of the railways in the Northeast once more threatened the WP's solvency. The Railroad applied to the I.C.C. late in 1970 for permission to issue short term notes in amount not to exceed \$6 million at any one time.

On February 2, 1971, the I.C.C. responded:

"... These statements point out applicant's dangerous working capital situation. The Railroad is currently operating at a loss, experiencing a rising cash deficit, and faced with current liabilities and long-term debt maturing within one year in excess of current assets by \$8,185,412.... The profit picture is dismal and the chances for quick improvement are not readily apparent."

In the meantime, new management, a nucleus coming from former New York Central officers, was installed in December 1970. Without borrowing any of the sum originally requested, the Railroad's loss operations were reversed within three months.

March 1971, less than a month after the I.C.C.'s credit crucifying report was published, the Railroad returned to a profitable operation and it has not suffered a loss in any month since. The methods used to recoup its physical and financial health have recently been made one of the case studies used by the Harvard Graduate School of Business Administration.

Yet, in common with our entire industry, we are still far from achieving an adequate rate of return on invested capital—which nationally averaged 3.71 percent for the last twelve months reported. The railroads, as all other public utilities, are being punished by the inflationary surge in costs of money, men and materials. And we face a crippling time lag between spiralling costs and the permission to increase rates.

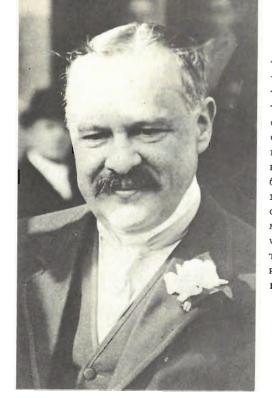
It is a difficult task, under present regulatory restrictions, to achieve an adequate rate of return which will permit greater use of the expanding technology for automated, electronically controlled freight yards—centralized traffic control—total management systems of communications and control.

We require additional modern freight equipment which is more efficient, but significantly more expensive to purchase. Great sums





ALFRED E. PERLMAN
CHAIRMAN OF THE BOARD
WESTERN PACIFIC RAILROAD COMPANY



TWO ALMOST FABULOUS PERSONAGES ARE A VITAL PART OF WESTERN PACIFIC'S HISTORY. THE FIRST WAS GEORGE J. GOULD WHO BUILT THE ORIGINAL EAST-WEST MAIN LINE, GEORGE GOULD, JAY GOULD'S ELDEST SON, HAD SUC-CEEDED TO THE II,000-MILE RIO GRANDE RAIL EMPIRE, IN 1900. THE WESTERN PACIFIC RAILWAY CO. WAS INCORPORATED, ON MARCH 6, 1903, AND WITH GOULD'S BACKING THE LAST TRANSCONTINENTAL RAILROAD WAS CONSTRUCTED THROUGH THE SIERRA NEVADA MOUNTAINS. CONSTRUCTION WAS COMPLETED WITH THE DRIVING OF THE LAST SPIKE ON THE SPANISH CREEK BRIDGE IN THE FEATHER RIVER CANYON, IN CALIFORNIA, ON NOVEMBER 1, 1909.





CONSTRUCTION OF THE NEW WESTERN PACIFIC RAILROAD WAS IN FULL "SWING" AS SHOWN IN THIS PICTURE FROM AN ORIGINAL GLASS NEGATIVE OF THE "IMPROVED HARRIS TRACK-LAYER" PUTTING DOWN RAIL NEAR HARTWELL (NOW QUINCY JUNCTION) IN THE FEATHER RIVER CANYON, CALIFORNIA. A FEW WEEKS AFTER THIS PICTURE WAS TAKEN THE "DRIVING OF THE LAST SPIKE" WAS TO TAKE PLACE ON THE SPANISH CREEK BRIDGE, THE DATE WAS NOVEMBER 1, 1909.

THE PIRST ENGINE DELIVERED TO THE WITTERN PACIFIC RAILROAD AT SALT LAKE CITY DECEMBER, 1906. IT IS A CONSOLIDATION (2-8-0) THE ENGINE BUILT BY BALDWIN IN PHILADELPHIA, IN 1906. THE FIRST THREE DIESEL MADE THEIR APPEARANCE IN 1940, THUS THE EUGINNING OF THE END OF THE STEAM MOTIVE, BY 1951 ALL REGULAR OPERATION OF THE ADMOSPHYED HAD ENDED, ON THE WESTERN

THE SECOND FAMOUS PERSON ON THE WESTER PACIFIC WAS ARTHUR CURTIS JAMES WE BUILT THE NORTH-SOUTH LINE FROM KED TO BIEBER, CALIFORNIA. PHOTO SHOWS JAMES PEAKING AT THE GOLD SPIKE CEREMONIES BIEBER, ON NOVEMBER 10, 1931. THIS ROW IS KNOWN AS THE INSIDE GATEWAY WHICH CONNECTS WITH THE BURLINGTON NORTHES AT BIEBER, AND WITH THE SANTA FE STOCKTON, CALIFORN

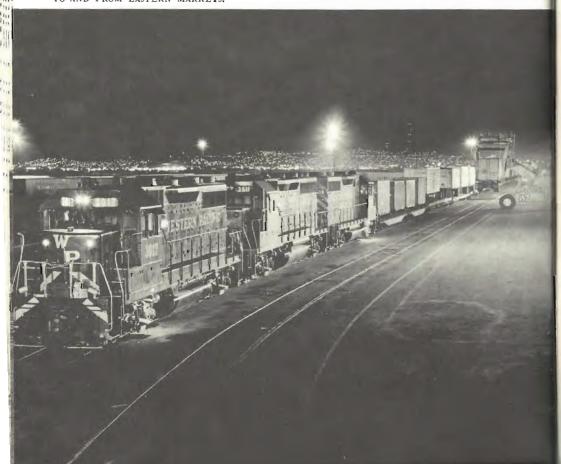
BEFORE THE DAYS OF DIESELS WESTERN
PACIFIC RAILROAD OPERATED SOME OF THE
MOST POWERFUL STEAM POWER IN THE
WORLD. THE NUMBER 259 IS AN ARTICULATED
(2-8-8-2) TYPE ENGINE BUILT IN 1938 BY
BALDWIN LOCOMOTIVE WORKS IN PHILADELPHIA, PENNSYLVANIA. AMONG THE 150 WP
LOCOMOTIVES (IN 1938) WERE 17 HEAVY
ARTICULATED "MALLETS," CAPABLE OF
HANDLING MOST FREIGHT TRAINS WITHOUT
HELPERS.

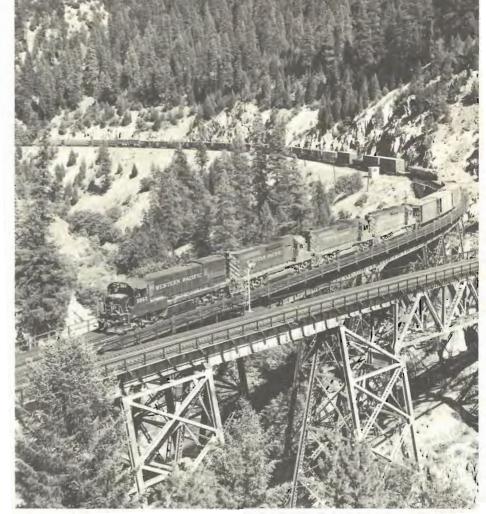






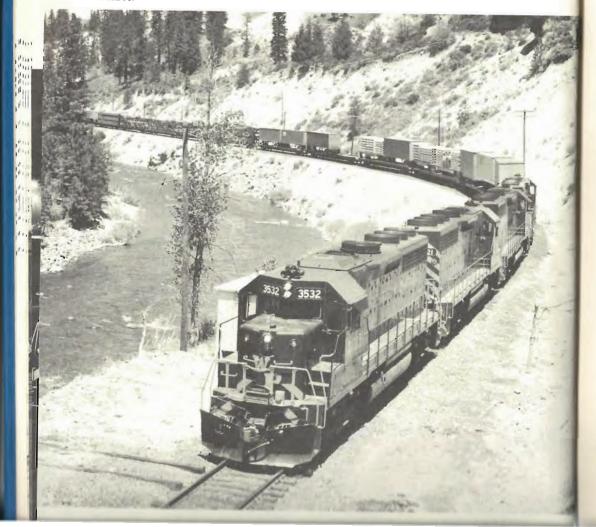
PHOTO SHOWS WP TRAIN "TOF" IN FINAL LOADING OPERATIONS AT OAKLAND, CALIFORNIA BEFORE DEPARTURE ON A THROUGH SCHEDULE TO SALT LAKE CITY, UTAH AND CONNECTIONS. IN THE BACKGROUND, ACROSS THE BAY, ARE THE LIGHTS OF THE CITY OF SAN FRANCISCO, AND THE HEADQUARTERS OFFICE BUILDING OF THE WESTERN PACIFIC RAILROAD COMPANY. WESTERN PACIFIC TRANSPORT COMPANY OPERATES A 24-HOUR PICKUP AND DELIVERY SERVICE FOR BAY AREA CUSTOMERS. WPT ALSO TRANSFERS TRAILERS AND CONTAINERS AT THE RAILROAD'S OAKLAND TERMINAL—EXPEDITING THE THROUGH SHIPMENTS MOVING DAILY TO AND FROM EASTERN MARKETS.





A WESTERN PACIFIC TRAIN, HEADING SOUTH ON THE "INSIDE GATEWAY" LINE, ARRIVES AT KEDDIE, CALIFORNIA, IN THE FEATHER RIVER CANYON. WP'S NORTH-SOUTII ROUTE MAKES CONNECTIONS WITH THE BURLINGTON NORTHERN AT BIEBER, CALIFORNIA, AND WITH THE SANTA FE AT STOCKTON, CALIFORNIA. THIS RUN-THROUGH SERVICE PROVIDES SHIPPERS AN INSIDE ROUTE FOR FREIGHT MOVING UP AND DOWN THE PACIFIC COAST AREA BY THE CARLOAD OR BY PIGGY-BACK TRAILER AND CONTAINER.

WESTERN PACIFIC TRAIN "TOF" EASTBOUND AT SLOAT, CALIFORNIA JUST 17 MILES WEST OF PORTOLA IN THE FEATHER RIVER CANYON. THE "TOF" TRAIN OPERATES DAILY BETWEEN OAKLAND, CALIFORNIA AND SALT LAKE CITY MAKING DIRECT CONNECTIONS WITH THE UNION PACIFIC AND RIO GRANDE RAILROADS TO EASTERN MARKETS.



of additional capital are required if plant and equipment are to effectively meet the growing needs of the economy.

Looking ahead to a projected 46 percent increase in freight volume over the next five years, our greatest need is a rational transportation policy which can effectively stimulate the industry as a viable tool of free enterprise.

In the late 50s the Senate Commerce Commission held extensive hearings on "the deteriorating railroad situation." It was the most thorough investigation in many years and effectively illustrated the almost unbelievable inconsistencies in national transportation policy. A report was published in 1961 by the Committee, without comment or recommendation. And though the situation for all common carriers has deteriorated even more since then, Congress' only solution appears to be an increased reliance on subsidies—which is certainly no panacea for the tax payer.

President Kennedy, in his first State of the Union Message told the Congress "the national transportation policy is a chaoti patchwork."

Today we are the only nation in the world which does not per mit an integrated transportation system. And our national trans portation policies go to inordinate lengths to destroy the abilit of all modes of transportation to efficiently serve our Nation.

Our Merchant Marine is practically nil and our airlines d not have the financial health they require. Common carrier truck ers and the railroads are being driven from the marketplace b unregulated carriers.

The Transportation Act of 1920 was designed by the Congre to set up guidelines for competitively balanced regional rail systems. It was replaced by the Transportation Act of 1940 which withdrew this requirement. Testimony in merger hearings regarding balance in competition would henceforth be irrelevant and was so ruled by the I.C.C. Administrative Judge in the B&C C&O, New York Central hearings.

This was the trap that led to the ill-fated Penn Central merger. And it is now being perpetrated in the west by the I.C.

decision in the Rock Island case. The "haves" will be strengthened and the "have nots" weakened, or made bankrupt, by this decision.

The Congress and the I.C.C. would like to make railroad management the "whipping boy" for the ensuing financial leukemia. They shrug off their own responsibilities. But let us look at the record. Here are only a few of the men from the New York Central and the positions they attained, to whom other challenges appeared more rewarding than being a minority partner in a merged Penn Central:

Walter Grant—Executive Vice President, Consolidated Edison John Kenefick—President, Union Pacific Railroad

James Boisi—Executive Vice President, Morgan Guaranty Trust Company

Charles Ireland—President, Columbia Broadcasting Company (now deceased)

R. G. Flannery-President, Western Pacific Railroad

Wayne Hoffman—President & Chief Executive Officer, Tiger International

Ray McCron—Vice President-Finance, Equitable Life Assurance Company

Samuel Hellenbrand—Vice President, Worldwide Real Estate Operations, I.T.T.

There is no bankruptcy court that can replace this kind of talent at the Penn Central . . . and the cost to the taxpayers for the way that property is now being operated will run into the billions.

In spite of the "chaotic patchwork" in national transportation policy, railroads still survive only because the most efficient form of transportation is the steel wheel on the steel rail. It takes less energy on a water level railroad to move a ton of freight than would be required to move it by ship. Destroy the railroad and the whole economy will suffer. What could be more harmful in an energy crisis?

Fortunately, changes in legislative climate give promise of improvement in government policies. A new President of the Association of American Railroads, Stephen Ailes, has impressive awareness of the legislative process. Significantly better relations

between management and labor in the industry are strengthening a cooperative approach to more rational government policies.

We have seen this year a significant change in the handling of national Railroad Retirement legislation by the Congress and other constructive transportation legislation appears to be taking shape for the first time in several years.

Of even more importance than recent technological changes on the part of the railroads, is a new marketing revolution that has recently evolved.

This new concept is a total commitment, involving all parts of the company—to identify the real needs of customers and potential customers—and to satisfy those needs in a profitable way.

This means furnishing transportation services that are closely tailored to customers' needs rather than merely running trains to suit our own convenience.

Today's economy demands that we consider the total distribution process, from production line to ultimate consumer—not simply the physical movement of the product. Material handling, packaging, warehousing and inventory costs all have to be evaluated. We have broadened our concept of transportation to include a variety of "customized" logistics services. No longer is the conventional boxcar the answer to every transportation need.

Sales staffs have been supplemented by specialists who use an industrial engineering approach to customers' problems. Newly recruited market managers, as they are termed, have come from responsible positions in the various industries we serve.

They are familiar with the services that both we and our competitors can offer. Through engineering and economic analysis, they work closely with our customers to design an optimum package including equipment, service and price.

Many innovations in railroad freight services are being introduced which were unknown fifteen years ago. High-speed trains for containerized freight, freight cars designed for pressurized transfer of bulk solids to trucks, unit trains hauling commodities in continuous shuttle operations, triple-deck cars for automobiles, plant covered hopper cars for grain, freight cars with air-inflated

rubber bags to restrain damage, cars with cushioned underframes to absorb shock, high cube boxcars for light density freight, 100-ton rapid discharge cars for coal and ore—and freight rates tailored to encourage large volume, rapid turnaround use of high capacity freight cars—are just a partial list of these recent innovations.

Containerization has revolutionized the economics of rehandling cargo from one mode of transportation to another. Once sealed at origin, the container moves as a unit from highway to rail to ocean carrier and back.

Scores of high-speed trains make daily runs between major cities carrying intermodal containers and highway trailers-on-flatcars far more economically than they can be moved by highway. Containerized shipments are interchanged directly to or from ocean carriers for movement in high-speed container ships and barges throughout the world. Time enroute, labor costs, damage and pilferage have been cut drastically. Two American railroads were pioneers in this development in the late 1950s and its impact on transportation economics around the world has been phenomenal.

The introduction of high capacity tri-level flatcars for transporting motor vehicles between assembly plants and distribution centers for forwarding to dealers via highway, was one of the earliest and most significant railroad marketing innovations. These 89-foot freight cars handle up to 18 automobiles compared to only four or five in the 50-foot boxcars formerly used.

Now automobiles are assembled at fewer locations and shipped longer distances by rail. Trainloads of automobiles two miles long move at 60 miles per hour, carrying more than two thousand vehicles in each train. Thus railroads have increased their share of this market from a low of about ten percent in the 1950s to well over fifty percent now.

One of the most controversial—and most misunderstood—railroad marketing innovations has revolutionized the transportation of grain. Ten years ago many railroads were losing money hauling grain in now-obsolete 40-foot boxcars. And many of our

customers were paying for outmoded storage or inspection services or using trucks or barges to escape our higher rates.

Analysis of grain transportation alternatives found that the traditional pattern of grain movement in 40-foot boxcars from small country elevators was inefficient, both for the grain consuming public and the railroads. Payloads were too small, loading and unloading was costly and grain leaked out the doors all along the right-of-way.

The answer was a fleet of high-capacity covered hopper cars which are quickly and cheaply loaded and unloaded. They require no grain doors and they don't leak. One of these cars can move three times the grain in a year that can be handled by a boxcar.

This modernized system helped move the huge volume of grain exported from this country in 1973 and 1974. This unprecedented accomplishment was also aided by a national computer network installed by the railroad industry five years ago. It permitted empty freight cars to be located and ordered moved to areas of shortages within three days, rather than three months, is it did with earlier, manual systems. Today this computer complex is being materially upgraded to take advantage of the latest technology.

Improved utilization is vital to the railroad industry because ownership, maintenance and capital costs for new equipment are approaching fifty percent of total transportation expense, whereas the labor involved in line-haul operations is less than ten percent of the total.

Another example of innovation can be found in unit coal trains, which are designed to keep rail transportation and coal competitive in the fuel market.

The economies of unit trains are found in their cycle of continuous, high-volume movement. This requires close coordination between the coal producer, carrier and consumer.

In developing an efficient unit train system, railroad marketing specialists evaluate shippers" loading and unloading facilities, train size and scheduling, freight car size, bottom dump versus

rotary dump cars and the economics of such options, including ownership of the equipment by the railroad or the coal shipper or receiver. Freight charges are based on the total volume, size of car (55-ton, 70-ton or 100-ton), size and schedule of trains, loading and unloading times, and the equipment ownership option selected by the customer. If the time taken to load or unload the train can be materially reduced to permit more rapid turnaround, the freight rate can be reduced accordingly—sometimes by more than fifty percent.

This requires investment by the coal shipper and receiver in modern plant facilities. It is a far cry from the two days for loading or unloading which prevailed before unit train service was inaugurated. One 100-ton coal car in unit train service can haul as much coal in a year as fifteen 55-ton cars in conventional service. Unit train concepts are now being applied to other bulk commodities including petroleum, grain, iron ore, construction aggregates and steel.

The development of coordinated rail-truck service for cement is another example of marketing at work. This combines low-cost, long-haul rail movement and short-haul truck delivery through use of pressure-differential freight cars designed to handle bulk commodities. This equipment permits the truck driver to force the cement out of the rail car into the truck using the compressor of the truck-tractor engine to create the necessary air pressure. This system eliminates the need for expensive fixed cement silos, or the even more expensive handling of cement in bags. Comparable rail-truck service eliminating storage tanks and packaging for chemicals, food products and many other dry and liquid bulk commodities is also a fast-growing business.

Newly designed equipment—60-foot boxcars for household appliances—permit offering lower rates per unit, but generate more revenue per carload. These cars, which handle up to three times the units handled in a 40-foot car, are equipped with larger doors, and inflatable air bags and bulkheads, to minimize handling cost and damage to the lading.

To give full effect to these new marketing programs, railroads are making improvements in two other areas where change is

Shippers, by and large, are not interested in how we schedule freight trains or if they arrive within an hour of their scheduled time. Rather, they are concerned whether their cars arrive in a reasonably consistent and dependable pattern. Therefore, we are imphasizing increasingly the need for reliability in car movement, both of loaded and empty cars, so that our customers can plan on assured deliveries of specified times from the shipper's plant to user's door.

Such assurance is valuable to us, too, because it permits us to maximize the utilization of our equipment, reduces capital costs and opens new competitive opportunities. Real time computer communication and controls to inventory and locate cars throughout the railroad system and to improve operations at yards, terminals and interchange points, have been invaluable in improving our service.

In the field of pricing, we are battling to overcome antiquated rate structures which historically were based on commodity value with little regard for the cost of service. We did not know accurately the product cost for our service nor the unit costs to control efficiency. For decades we were dependent upon the book-keeping structure of the I.C.C. Bureau of Accounts, set up at the turn of the century, which was a far cry from true cost keeping. The monopoly approach to pricing left the railroads severely handicapped in the new era of transportation competition. It permitted the trucking industry to drive off with vast quantities of high-rated manufactured products, leaving us with the burden of large volumes of traffic priced too low in relation to capital and operating costs. The computer and GAAP accounting is helping us change all that.

Considerable progress has been made in creating competitive and profitable price incentives for heavier loads and for volume shipments. Computerized information systems and simulation models now permit us to analyze the complex variables needed to gain a more systematic understanding of the behavior of our costs and to develop a more modern pricing system.

With more definitive computerized unit costs and product costs to which we now have access, and the modernized marketing procedures, we look forward with confidence to an increasing share of the Nation's freight transportation.

Also heartening is the materially increased understanding of mutual problems, by both railroad management and labor. Each is to be congratulated. And this newly acquired statesmanship on the part of both will add impetus in explaining to Congress, and to the public, the "chaotic patchwork" of our present national transportation policy. For this is our number one problem! And its effective solution can prove to all of you that railroaders may be diffident, but they are far from decadent.

THE END

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"Actorum Memores simul affectamus Agenda!"



