Building Tracks to Better Lives

Dan Gray

Dan caught in a reflective moment, Chicago, November 2012

It is very humbling to be asked to write about one's career among the most gracious and generous group of peers he's ever known. When Melinda asked if I would contribute a "Reflections" article for the NCTA Coal Transporter, I thought "What could I possibly add to the wealth of experiences already conveyed through that outstanding collection of articles?" Yet, each person's story is unique and, when compiled and recounted in even the most cursory form, may likely find a niche in the annals of that vocation.

Electric power and transport systems have drawn my interest from an early age. Their complex dynamics of energy and matter, delivered over long distances, conjure up images of the cosmos itself. My dad, a high school physics teacher and life-long educator, encouraged my interests and provided activities to nourish them along with other father-son pastimes like fishing the boundless bays and inlets of south Florida…but that's another story.

When the time came to select a college major, the University of Florida's transportation and public utilities program was a natural choice. My major professor, Dr. D. Philip Locklin, was an internationally known expert in transportation and public utility economics and wrote the widely used textbook Economics of Transportation. He primarily taught at the University of Illinois but later alternated school terms in an exchange program with UF. It was a rare opportunity to study under this distinguished professor and receive a BA degree in economics in early 1967.

The University of Tennessee's graduate transportation program was a logical follow-up and became a cornerstone of my 35-year coal transportation career with Entergy and its predecessor, Gulf States Utilities Company (GSU). But jumping straight from undergraduate to graduate studies without some real-world experience seemed lacking in substance.

A helping hand from the Atlantic Coast Line Railroad—later to become part of today's CSX—provided a solid step in my career path. A four-month summer stint as "Student Clerk-Telegrapher" at High Springs, Florida, provided an array of experiences beyond any imaginable when I first contacted W. Thomas Rice, then president and CEO, expressing my career interests. The resulting hands-on assignments ranged from shipper transactions and freight agency work, to yard clerk then yard labor when, in mid-summer, an unexpected vacancy on the car cleaning track needed immediate filling.

Work on the cleaning track was dirty, degrading, heavy-lifting toil in the blistering Florida sun. Yard workers took bets on how long this "college boy" would last. But I needed the money and no other jobs were opening up. After a couple of rough weeks, I noticed my darkening arms were becoming hard as rocks, the work bearable, and the companionship enjoyable as new values were engrained that would enrich the rest of my life.

As summer ended, Trainmaster J.H. Arnold—always dressed in suit and tie and looking like a CEO of the sweeping rail yard—searched me out in my sweaty, disheveled work clothes. I felt conspicuous and ill-dressed, wondering if I was about to be chewed out for some evil I had committed. To my astonishment, he offered me a major promotion if I would be willing to stay on! It was sorely tempting.

My summer at High Springs had been a gold mine of training and conditioning—mental, physical, and moral. With some real regrets, I explained to Mr. Arnold my goal to continue my education at UT that fall. He was understanding and said to call him when I finished at UT. Unfortunately, Uncle Sam was hot on my trail at that time, and I never followed through with that call. But other fortunes beckoned.

Time at UT passed quickly and soon I faced the elusive task of developing a master's thesis topic. New generations of auto assembly and coal-fired power plants were creating vast new traffic flows in the south and southwest. Their managements were clamoring for competitive rail service, but incumbent railroads were vigorously opposed, arguing that new rail construction was unneeded and would create more excess rail capacity than already existed. I proposed researching these new rail projects to see if that reasoning was valid.

"Why that topic?" demanded my thesis committee, noting that far more rail mileage was being abandoned than built at that time. I explained that these "new generation" industries were introducing

new business dynamics that needed to be distinguished from the era of railroad overbuilding some 50 to 100 years previously. With little further discussion, my proposed topic was approved as "An Analysis of the Policy of the Interstate Commerce Commission Toward Railroad Construction."

Hundreds of written pages and untold research hours later, my thesis was orally defended and published in March 1969, followed shortly by graduating with a Master of Science Degree in Transportation. Little did I know that the same principles set forth in that thesis would underlie my work in building two competitive rail routes to Entergy's coal power plants some years later.

The dreaded notice from the draft board arrived the week of my graduation. Two recent job offers had to be put on hold until I completed my service obligation to Uncle Sam. Several Air Force officers in my graduating class suggested I apply for the Air Force's transportation program. The Air Force recruiters in Knoxville informed me that, with the Vietnam War raging, they couldn't recruit transport specialists at that time; however, they could get my "foot in the door" by signing me up for OTS (Officer Training School) then Navigator Training. From there, if I desired, I could apply to transfer to transportation.

While that process wasn't as "slam dunk" as military recruiters are notorious for spinning, I entered the Air Force transportation officer's school at Sheppard AFB, Texas, in spring 1970. That was followed by 3½ years active duty in the Military Airlift Command (MAC)—the Air Force's worldwide airlift system. Assignments included 16 months base operations at Scott AFB Illinois, 13 months aerial port ops at Osan AB, South Korea, two weeks advanced transport training at Altus AFB, Oklahoma, and 12 months as staff officer, headquarters MAC, Scott AFB, Illinois. While at Scott, I met and married Jennet VanNeste from DeRidder, Louisiana. She grew up in an Air Force family and took to military life like a duck to water. We recently celebrated our 50th wedding anniversary!

Approaching release from active duty in early 1974, Jennet and I took a cross-country train trip to relax and think about our future. An unexpected opportunity came out of that trip that would ultimately lead to our 35-year career with GSU and Entergy. But first I was to undergo some crash courses in railroad thinking, operations, and discipline.

"Ruthless" was the word used by one seasoned rail official to describe Amtrak's Chicago operations managers—my bosses—who were brought in to clean up Amtrak's 12th Street Coach Yard recently inherited from the bankrupt Penn Central Railroad. They were tough but brilliant and knew how to get the job done. They demanded thorough discipline and knowledge of every person, track feature, locomotive, car, and movement needed to get 40+ passenger trains per day into and out of Chicago on time, many with full service dining, lounge, and sleeping accommodations. But reaching those standards was a rugged path, and it seemed that everything that could possibly go wrong did—made much worse by Chicago's hardest winters in a century.

Yard derailments were a frequent occurrence adding to the TM's (Trainmaster's—my job) woes. If caused by defective switch points or wheel flanges per AAR Rule, the evidence was clear and easy to call. Many times, neither the switch points nor wheels were defective by rule, but both were badly worn and obviously contributed to cars being "on the ground." The TM had to arbitrarily assign blame on one or the other, causing a big fight with the accused party. That party would then blame excessive speed (my jurisdiction) but our switch crews were pretty careful and there were never any witnesses or evidence to prove fault. Besides, no TM wanted an angry switch crew, who could make his life hell by slowing down to where everything would be late and he would be blamed—possibly fired.

Rerailing cars was tricky, sometimes dangerous work, especially setting blocks and heavy rerailing "frogs" under derailed cars, often in ice and snow. This responsibility always fell to the TM (except for big jobs needing Hulcher or Vance to clean up). One afternoon, the Senior TM whom I relieved instructed me to get a derailed mail car out of Chicago Union Station's (CUS) mail terminal (located under Chicago's main post office) and back to 12th Street coach yard for No. 40's (the "Broadway Limited"—Amtrak's biggest and hottest) train to New York the next day.

The derailed car had been spotted for unloading earlier in the day and rolled north (possibly due to melting ice) over a derail set to protect adjacent tracks. The rerailing job was to be done without notifying CUS operations, who had sternly warned us not to touch the derailed car for fear of damaging the derail's fragile control rods, which were straddled underneath the derailed truck.

"WHAT? THAT'S CRAZY!!!" I thought in disbelief as he turned and walked away. But three things went without saying: (1) he spoke with the authority of my boss in his absence; (2) he clearly meant this was my job and no one else's; and (3) the UNITED STATES MAIL MUST GO THROUGH!

I inspected the derailed truck on my way to 12th Street, noting with relief that the control rods were still intact and there might be enough room between the derailed truck, ties, and ballast to set blocks and frogs high enough to clear the rods while rerailing the car. The rest is a rather fascinating story for another time, but the clandestine operation that night went cleanly and with no damage, much to the chagrin of CUS management.

Not long after the above episode, Jim Trousdale, a friend and former colleague at Amtrak, called to say that he had recently started a new job in Fuel Services at Gulf States Utilities in Beaumont, Texas. Further, the company was seeking someone to fill another position to assist in the acquisition and management of a new 650-railcar fleet to deliver 2.3 million tons of Wyoming coal annually to its first coal-burning power plant, then under construction near Lake Charles, Louisiana. He wondered if I might be interested in applying.

ETRX loads passing South Morrill, Nebraska, headed for Entergy Arkansas, June 2011

Dan and Jennet vacationing on "The Canadian," January 2014

The timing couldn't have been better. Jennet and I had been thinking about moving closer to our aging families in Louisiana and Florida. The job looked well suited to my experience and would allow more time with family. The interview went well, and soon we were on our way to Texas. At my going away party, Chuck, the Senior TM mentioned above, announced for all to hear, "Dan, if you get to Texas and decide you want to come back, your old job will be here waiting for you!" It was a tribute I greatly appreciated, but our future lay in looking ahead.

Construction of the Gulf States' railcar fleet was about a year off when I joined GSU in May of 1980. Negotiations with Bethlehem Steel were in progress, hammering out sticking points on warranty, 100 percent weld penetration of the new robot-welded two-piece center sills, and various "boilerplate" items.

Black & Veatch, our engineering consultants headed by Dick Rhinehart, were solid, low-key individuals and a pleasure to work with. They took the lead on structural design and fabrication but deferred to us on selecting the "specialty" components such as trucks and draft systems. I made no secret of my lack of expertise in these areas, and asked hundreds of questions to whomever I could find with high-mileage unit-train experience. Thus began my introduction to the incredibly gracious, generous co-ed fraternity of coal transporters who would be my peers and associates for many years to come. I cannot thank them enough for the welcome, knowledge, and companionship they shared so openly with this newcomer to the business. They loved their work and sharing what they knew, as did I.

Car construction in Johnstown, Pennsylvania, generally went well although I questioned why the final body welding jobs—performed after the cars were set on road trucks—were being electrically grounded through the road trucks and bearings rather than ground clamps fastened to the car bodies. The engineers understood my question but replied they weren't aware of any problems resulting from this practice. I explained the high-mileage service these cars would be in, and that we hoped to see wheelset service and major maintenance cycles far exceed those seen in conventional freight service. With this, they gladly complied.

Learning and tracking railcar wear patterns was one of the most gratifying parts of the job. An informal group of western fleet managers met once or twice a year to compare wear patterns and maintenance data. These events were always fun and engendered some good-natured competition. This activity has since been formalized by the NCTA to benefit all its members.

Thanks to favorable routing, low center-of-gravity car design, and components suggested by early peers I met in the business, our long-term maintenance costs have remained in the lower quartile of western coal fleets. This so far undercut early cost projections that our fuel accountants had to liquidate the car-mile "maintenance fund" that I had initially recommended to levelize long-term maintenance costs.

KCS management was ecstatic with the performance and stable riding qualities of the cars. However, an unexpected brake glitch developed around the 5th to 7th years of service. Locomotive engineers expressed concern that the brake systems were no longer holding the downgrade speeds to which they were accustomed through the Ozark Mountains in Oklahoma and Arkansas. Bethlehem Steel and its brake supplier were promptly brought into the discussions. Brake shoe forces were tested at our contract shop at Bill, Wyoming, and found to have fallen below minimums for loaded condition. Bethlehem promptly recommended reboring the body brake levers, for which they took full responsibility. KCS expressed satisfaction with the repairs and the cars performed flawlessly for their remaining service until replaced by aluminum cars in the early 2000s.

Dining on "The Canadian," January 2014

GSU's 1988 rail negotiations did not go well. Both sides were facing potentially serious losses, even though both had acted

Union Pacific PRB Coal Special, Bill, Wyoming, June 2011

in good faith and due diligence. Talks were clearly deadlocked. Under the leadership of Jim Champagne, Vice President Fuels and System Planning, we regretfully informed our friends at the Kansas City Southern Railway (KCS) that we would honor our obligations for the remaining years of the contract, but they would never see another ton of our coal thereafter because it would be moving over other rails—yet to be built.

What happened? It seemed like it had been only a couple of years since both sides had exuberantly shaken hands on a landmark coal transportation contract that would benefit both for years to come. That contract—one of the first signed after the Staggers Rail Act of 1980 had revolutionized rail ratemaking and business practices—reduced GSU's transportation rate to among the lowest (on a cents-per-ton-mile basis) in its Texas-Louisiana service area. It had been considered a good deal by GSU's economic advisors and legal counsel. All of the savings would pass directly to GSU's electrical customers so they and the state public utility commissions should be pleased as well. And they were—but not for long.

Suddenly it seemed like all the utilities in Texas and the southwest wanted to sign new contracts with their delivering carriers, each in succession at still lower rates! How could that be? Contract rates are confidential, but that doesn't shield them from being fairly closely estimated by neighboring utilities trying to gain fuel cost advantages over one another. Since it was generally known that rail costs typically comprised some 60-70 percent of delivered costs from the Powder River Basin to generating plants in the Southwest, it didn't take long for public utilities and regulatory authorities to start sniffing out approximate transportation rate changes as new non-confidential delivered cost numbers started appearing in the public media soon after each new transportation contract was announced.

By 1988 GSU's coal transportation rate advantage of 1984 had disappeared and become a liability as its rate had been undercut by other Texas utilities entering contracts with the Union Pacific or Burlington Northern railroads—a virtual light-speed market reversal compared to the years before the Staggers Act when rail rate changes were less frequent and almost never negative. This rate differential was further exacerbated by the fact that two-carrier rates—such as that to Nelson plant—typically ran higher on a cents-per-mile basis than single-carrier rates such as those for most southwest utilities served by UP or BN.

As a result, the Public Utility Commission of Texas (PUCT) issued a preliminary decision "disallow" (deny) recovery of well over $15 million of what it deemed "excessive" coal fuel costs at GSU's Nelson plant. No consideration was given to the savings that accrued during the early years of GSU's contract, when its rates were below other utilities' rates on a ton-mile basis.

To its credit, KCS later came forward with an innovative proposal that salvaged our relationship and resolved our rate restructuring needs with respect to the PUCT's threatened disallowance (which was later rescinded). However, it had become abundantly clear that the only long-term solution to ensuring market-based rail rates to Nelson plant was to build a competitive transportation alternative to the KCS and its connections. Recollections of my master's thesis at UT immediately came to mind—but how to apply those projects to the regulated utility business model?

Enter John Molm of Troutman Sanders law firm in Atlanta and Washington, D.C., whom I had previously met through Jim Small, fuels manager for the Southern Company. Knowing that John had worked on three rail buildouts for the Southern Company, I called him one day to see if he had any suggestions for our rail needs. After asking me a few questions about GSU, Nelson plant, and our nearby rail layout, he launched into a step-by-step narrative of every major permitting, regulatory, and business process needed to get our project approved AND financed. More importantly, he knew how to get things done in Washington, D.C., a critical dimension of the project.

The new 4.3-mile rail line needed to conect Nelson plant with the then-Southern Pacific Transportation Company (SP) would have to be a certificated interstate rail common carrier. This designation would give it statutory rights to cross the KCS main line, which lay between the SP and the plant. Despite KCS's understandable displeasure at having our competitive rail line cross their track—which would cost them many millions of dollars in annual revenues—they were always professional and fair in their business and operational dealings with the SGR and GSU.

Preliminary engineering identified three potential routes for the Southern Gulf Railway (as it was ultimately named), each with its own benefits and shortcomings. In typical John Molm fashion, Bill Harrington (Manager Fuel Services), John Knippa (Environmental Engineer), and I presented our proposed plan to key staff members of the Interstate Commerce Commission (predecessor to the Surface Transportation Board) in mid-1992. Such meetings, while

Dan at Bill Yard, Wyoming, June 2011

informal and non-binding, served to (1) alert the ICC of the upcoming filing, and (2) enable us to receive their feedback and suggestions, which were helpful in preparing the complex construction and environmental documents needed for the filing.

Right of way and rezoning went remarkably well thanks to great public relations, real estate, and public meetings. I attended these to show good will and desire to ease local residents' concerns, which generally involved safety, noise, coal dust, and possible property value impacts. Guarantees were made to purchase nearby properties at appraised value for up to five years if any residents became unhappy with the presence of our line near their homes. None of these options was ever exercised. Other covenants were made to provide and maintain unobtrusive safety fencing, preserve and manage nearby woodlands, and limit the line to a single railroad track. These conditions were included in the ICC's exemption allowing construction of the SGR.

GSU's engineers handed me an intimidating stack of engineering proposals from big-name firms and asked if I had any preferences. "WHAT?" I had no engineering credentials but knew well the disastrous results of inadequately prepared rail subgrade. This was of particular concern because part of our route would be over a 1.5-mile stretch designated 50 percent wetlands. Disregarding all the flashy expensive-looking proposals, I pulled out a simple typed proposal in a school binder and called its author, Roger Foster of Foster-Jones Engineering Inc. "Did you ever engineer a heavy-use rail line across southern wetlands?" I asked. "Yes, a paper mill line, and it hasn't had any surface or leveling problems in over 10 years of use," he replied. He also said that he was the primary engineer for the KCS's "Meridian Speedway" project, with which I was generally familiar. I called the KCS engineers and they couldn't stop saying good things about him. I passed this info on to our engineers and he was hired. The Nelson line has held up superbly for over 20 years with minimal surfacing despite regular unit trains consisting of "286K" railcars.

Operation and maintenance of the SGR was contracted out to Timber Rock Railroad Company, a subsidiary of WATCO. They handled the myriad details involving day-to-day O&M of track and facilities, train unloading, two state highway crossings, and routine communications with applicable local, state, and federal agencies. Coal Supply negotiated and administered the required industry track and crossing agreements and processed frequent inquiries from local industries and pipelines seeking right-of-way access for maintenance, crossing construction, or possible joint use of facilities (which never materialized while I was there despite our common carrier designation).

Fuel cost savings from the buildout far exceeded expectations. Unexpectedly aggressive competition between bidders improved the payback period to approximately once every three years, give or take, periodic variances due to business cycles and demand for other rail services. Ongoing rate differentials between competitive vs. captive traffic remain generally estimated to run some 20 percent, depending on those same variances. Benefits to Entergy's shareholders accrued from having the SGR capital cost placed in its rate base according to applicable accounting rules.

The GSU-Entergy merger occurred on December 31, 1993, about midway through the Nelson buildout permitting process, which continued in full swing. Subsequent reorganization and downsizing led to Charlie Harmon taking responsibility for the combined 3,500-railcar fleet, and me the combined 15 million-ton/year coal transportation programs for the Arkansas and Nelson coal plants, as well as the Nelson buildout and later a similar project for White Bluff plant in Arkansas. Charlie was an industry icon with both rail and utility backgrounds. I thoroughly enjoyed working with him during our employment with Entergy, and later staying in touch during our retirement to the present time.

Early savings accruing from the Nelson buildout convinced Frank Gallaher, Entergy's Vice President Utility Operations, of the need to begin exploratory work on a similar project for the White Bluff plant located near Redfield, Arkansas. While the end objective was the same as that for Nelson—lowering rail rates through competition—this project became very different in several ways. Whereas the KCS—always mindful of good shipper relations—took a "hands-off" approach to our Nelson project, the Union Pacific threw up every legal road block it could find. Opposition centered around our proposed competitive access location at the nearby U.S. Army Pine Bluff Arsenal, rather than the city of Pine Bluff, which would have required a longer and more costly route.

However, a local rail historian, Peter Smykla, whom I met during our preliminary route surveys, recalled that the Missouri Pacific Railroad and Cotton Belt Route (a former subsidiary of the Southern Pacific Railroad) once competitively served the Arsenal via a 10-mile joint line from Pine Bluff. We took the position that the Arsenal therefore qualified as the closest location where we could receive competitive rail service from the just-merged BNSF Railway under the "2-to-1" conditions set forth by the Surface Transportation Board for the UP-SP merger. We met with the Arsenal, which was fully cooperative with this proposal and submitted a supportive letter accordingly to the STB.

This position was vigorously opposed by UP. However, attorney Sandra Brown—a colleague of John Molm who headed the

Coal transporters enjoying a break at Bill, Wyoming, June 2011

legal work for our Nelson buildout—skillfully argued for and won the STB's decision that the Arsenal qualified as the closest 2-to-1 location.1 This reduced by nearly half the distance and cost of our prospective buildout from White Bluff, bringing it well within economic justification.

Following the STB's decision, Union Pacific offered to grant BNSF trackage rights directly to White Bluff plant subject to the condition that we pay for constructing a signaled south-facing turnout over, which BNSF trains could enter the plant directly from the south (coming from Pine Bluff). The "wye" formed by the new connection together with the old north-facing connection—over which UP trains normally entered and exited the plant—greatly increased the operational flexibility for both carriers.

The introduction of competitive rail service to White Bluff Plant in early 2002 produced fuel cost savings comparable to those realized from the Nelson buildout, multiplied by almost three times the tonnage. Further, it was seen to reduce the average fuel cost to both EAI's White Bluff and Independence plants. The possibility of building a competitive line directly to EAI's Independence plant near Newark, Arkansas, was evaluated in 2008. However, the higher cost of that prospective line would have limited net savings to marginal amounts, so the project was not pursued at that time.

Charlie Harmon retired in 2004 and wasn't replaced, leaving me with maintenance oversight of the 3,500-railcar fleet in addition to my other responsibilities. Shop maintenance was in good hands with WATCO, so we contracted with Carol Scarborough of FCRS to handle the myriad administrative details while I oversaw trends, argued over WILD detectors, increasing break-in-twos, etc., and directed truck and draft system programs for the "new" aluminum fleets approaching their million-mile mark. Meanwhile, much new work was being generated, such as the coal dust fouling meltdown of the PRB Joint Line in 2005-06, railcar refinancing, and almost continuous rate cases filed in Texas and Louisiana.

Much has been said of NCTA's great qualities and especially Tom Canter's excellent leadership. His people skills, uncompromising integrity, and well-chosen inspirational speakers helped keep our moral compasses set on true north despite many trials. We are all better for it. While I haven't known John Ward as long, his amazing background and strong leadership during last year's 48th Annual Conference encourage me that NCTA remains in good hands. Good character and hard work have always been hallmarks of the NCTA members I've known, but Emily Regis, Melinda Canter, and Pat Scherzinger are in a class of their own. How they get done all they do is beyond me. Thanks to all!

Retirement was a two-phased affair. In 1997 I took early retirement from Entergy and was about to start working for Xcel in Amarillo, Texas. Charlie Jewell, then Manager Coal Supply, lured me back to Entergy in a contract capacity to help with (1) recovery from the UP-SP merger meltdown of 1996-97, and (2) Entergy's decision to begin work on the White Bluff rail buildout (discussed above). This contract work—which included many of my former responsibilities—continued until January 2003 when Jeff Herndon, Entergy's new Manager Coal Supply, rehired me to work in The Woodlands offices, where I remained until final retirement in April 2015.

Retirement in 2015 brought more family time, travel, and volunteer jail work, which began in inner-city Houston some years before retirement. Seeds of that work were planted during my Chicago (Amtrak) days when answers were demanded to the question "What do you do when the life goals you come within sight of turn up wanting?"

It has been said, "If you want to know more about someone, read their book." Putting away the so-called "self-help" books and gimmicks, I went straight to the source: the Bible. Cover to cover, probing, questioning, setting aside pointless controversies while sorting out the underlying truths and message. Putting it simply, matter cannot exist apart from the laws that define it, so intelligence had to come first and remain apart—which helps settle a lot of issues.

I didn't find the jail work, it found me. But seeing the hunger for spiritual nourishment among many there, and the faces that light up when they begin to see, is what keeps volunteers coming back despite the stress and frustrations of the work. Yes, there are many failures and relapses, but who of us gets it all right the first time—or even the fiftieth?

Hang in there dear friends and NCTA colleagues—life keeps getting better! Let's meet for coffee sometime!

Dan with family and friends, Christmas 2021

1 Sandra Brown currently works with Thomson Hine law firm in Washington, D.C., and periodically presents regulatory updates to NCTA meetings, such as 48th Annual NCTA Business Meeting and Conference in September 2022.