

The Economics Of Steam

By R. B. (Robert) Frank

Is there one R.R. man in one thousand, R.R. executives in particular, who can will an economic case study — an economic "juxtaposition" — supporting BNSF steam? This was the question asked by Greg Robinson of Robinson and Associates, the media producers who stand ready to make the weekly T.V. series, "American Loco," which would cover the restoration and testing phases of BNSF (ATSF) 5021 at the CA State R.R. Museum in Sacramento.

Thanks to Tim Smith and Bruce Wyman of our BLET "Capitol to Capitol" magazine, the familiarization and briefing phase of BNSF 5021 has started at BNSF headquarters (Ft. Worth). I must say Ft. "Worth" doesn't take its name lightly, with emphasis on both "Fort" and "Worth!" Who ask: How will this Public Relations 'ad'venture more than support itself with tangible, measurable and traceable carload increases to, again, more than pay for itself? The \$million or two for 5021 's plumbing and paint is hardly the concern or question. The much harder question and concern is the level of financial support BNSF 5021 can generate for itself, by itself. Another concern is at a time when BNSF is struggling to maintain velocity, while handling more and more volume, begs the question if a new public relations campaign is even necessary.. -or is it more so than ever? At any rate, this has become an interesting process of one idea improving another idea, where all problems are convertible into opportunities.

Bill Vantuono, editor of

"Railway Age," has long maintained that there is not a more important industry, where public ignorance is higher, than in our U.S. rail freight industry. This cultural factoid is made far more strange by the fact that as children we were all raised with R.R. culture in the form of models, poems, songs, stories, toys, train rides and Thomas The Tank Engine, etc. Looking back, we can see how this childhood R.R. culture unfortunately backfired into a total R.R. disconnect. Why? We entered our teenage years (less than 10 years from entering our workforce years) thinking that rail transport was the realm of fable, fantasy, fiction and extinction. It's little wonder, then, why our R.R. industry legislation does less well than it should. We don't have voters enough, who take us seriously enough, for our Legislators to care.

Will the "American Loco" T.V. series correct the misinformational stereotypes in the above paragraph or

further worsen them? This is another of Ft. Worth's concerns. Rest assured, we want the T.V. series to well serve as a stage and platform to sound-bite our way into the many of our R.R. problems, hence many opportunities, with volume and velocity at the top of our sound-bite list. Speaking of R.R. stereotypes, perhaps our worst is the public perception of our sailboat slowness. The high speed rod flash of BNSF 5021 will do a better job of showing R.R. velocity than a 200 M.P.H.

"Eurostar" train. Just look at the intro to any old "Superman" show, showing a famous New York Central J-3a 4-6-4 Hudson-type at 75 M.P.H. (A phenomenal machine, but less than half the power of 5021 .) If, with T.V., we informationally popularize our R.R. industry like "Deadliest Catch" popularized crab fishing or "American Chopped" E-popularized motorcycles, then everything from "Operation Lifesaver" to R.R. Industry Legislation becomes much more easily harvested, not to mention R.R./Public/Partnerships. Ft. Worth might consider this to be so much political jfcome, but jfcome worth hundreds of billions of dollars, nonetheless! As my father once said, "If a company wants to mine for opportunities, it needs to do its share of exploratory mining." This applies to everything.



Speaking of T.V. and exploration, I called Mr. Arnie Thompson, Chairman of the Alaska Crab Coalition, who represents the owners of some 80 crab fishing vessels. I was curious about what impact the "Deadliest Catch" T.V. series had on their fishing job applications. I was astounded by what I will now share with you: "Before 'Deadliest Catch' aired

two and a half years ago, our fishing boats were staffed mainly by college students and ex-convicts (some combination). During the two and half years of its broadcast, fishing applicants have more than quadrupled and stayed there. Since there are more applicants than jobs, some of the spillover goes on to staff all sorts of shore-based fishing support sub-industries. Funny, the Hanson brothers, whose vessel tends to receive more airtime than the other boats, now have hat and t-shirt revenue nearly equaling their fishing operations." Thanks Mr. Thompson!! (Mr. Thompson was amazed and amused that someone from the R.R. industry was studying his also beloved industry.) The success of these reality shows only begins here. "American Chopper," for another example, has triggered Junior Colleges across our Nation to set up shops and courses for this industry, too, not to mention law enforcement, etc. Let's not forget "Top Gun," either, which still has a positive effect on Naval recruitment some 20 years later. Such is the power of

T.V. and other media to pull a culture inside out. All of this begs the question: Is it the rail's turn now?

If it's instant profit Ft. Worth demands of BNSF 5021, we could rely on charters, fan trip sales, internet time, leasing, media location user fees, royalties, toy licensing and t-shirts, etc. After all, Union Pacific keeps a cost-center for such revenue. We could also rely on 5021's two "Pumpkin" loco

interesting, are the people who lose both their sight and hearing to industrial accidents and war, only to miss their hearing more than sight. If there is a better R.R. tool, star or icon to better bridge these senses than 5021, I beg you to please let me know.

Some might think the above cultural paragraph is unrelated to economics. On the contrary, it's the root essence of economics

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power equivalency. At high speed, some would claim three "Pumpkins." At a Smillion or two in 5021 plumbing and paint versus two \$million per "Pumpkin," 5021 would be a very decent trade were it not for the steam loco's semi-regular only, perhaps low utilization use. All this, however, is only microeconomic multi-million dollar stuff. Let's go back to the macroeconomic multi-billions which is much more interesting.

Ft. Worth estimates some 16,000 jobs will need to be filled over the next 10 years due to growth, Baby-boomer retirements, injury, etc. This 16,000, however, doesn't include the resignations from those "short-termers" who found out railroading wasn't for them, nor does it include the "derailed" and/or terminated. These 16,000 are an understatement. Its more likely to be at least twice this (or 32,000+), which will require expensive training at about 3,000 new recruits per year.

Training for locomotive engineers is running \$60,000 each, using full accrual accounting. If the price tag is half this, on average, for all the other 100+ categories of employees, then 32,000 x \$30,000 = \$960,000,000. Call it a billion, in today's dollars, for recruitment and training over the next 10 years. If with R.R. T.V. exposure, R.R. job applicants should double or triple, wouldn't it stand to reason BNSF could cherrypick the most able and dedicatedly interested people? The "re"-retraining of the "re"-recruited with the "re"-damage of all types is wasteful indeed. If training and damage costs got cut in half, the half billion dollars saved makes the BNSF 5021 restoration a one penny to the 55 bill, barter bargain.

The "American Loco" T.V. series will include more than BNSF 5021. With cameo shots of BNSF's Network Operations Center, and helicopter coverage of 5021's high speed rod flash against endless ribbons of high speed intermodal, is the stuff of public relations legend. BNSF 5021 is the perfect starting point. With the largest cylinders (30" x 34") in combination with the very highest steam pressure (310 P.S.'.) makes 5021 and his 35 lost brothers the most dramatic opera stars in all of R.R. history, bar none! Their steam whistles could be heard six miles away and during exertion their value events, like rapid-cannon-fire, could be heard for four. The fact these extreme machines were used on the high desert, and seldom in the metropolitan areas, means their opera stardom has yet to be discovered by the masses since their time of construction. Please don't underestimate the value of sound here. It's what attracts us to racing and other powerful machines of all types. Interestingly, we can listen to the same music several thousand times, but even our favorite movies only several times. Tragically



itself. Why? Because without culture, there is no economy. Only management teams with limited vision look at economic numbers only. The best teams like Warren Buffet's "Berkshire Hathaway" are not only alert to cultural change, but will actually participate in the acceleration of that change. BNSF 5021 is the right machine, in the right place, at the right time to accelerate our R.R. cultural change, literally and figuratively.

The enemies of steam tend to complain about four corner millstones: noise, smoke, inefficiency and dependability. Our noise response: The louder, the better. We wouldn't want to discriminate against the hard of hearing, nor will hearing loss occur thanks to ear protection and the low base decibels of steam. Our smoke response; Like Union Pacific, with a quick and simple conversion from Bunker "C" oil to diesel oil, not only is refueling a routine chore, but diesel fuel's extra volatility in combination with 5021's combustion chamber forward of the firebox, will enable a complete and clean oil burn. Our inefficiencies response: Dynamometers tests of 5021's brothers during the late 1940's, recorded fuel consumption of 10 gallons per mile with 5,000 tons at 60 M.P.H. on level track. Adding loco weight, this is 550 tonmiles per gallon per minute. Modern diesel trucks are lucky to achieve

280 ton-miles per gallon per minute. Thanks to the steel wheel on steel rail, 5021 is literally twice as fuel-efficient as are modern trucks. Our dependability response: This depends on the quality of the restoration. It's worth noting how Santa Fe and New York Central steam locos in long distance passenger service routinely ran 30,000 miles per month at up to 120 M.P.H. Today's Amtrak diesels are not capable of this. So much for the anti-juxtaposition(s).

In commencement, it's said that charity is so much the pleasanter when it's highly profitable. With BNSF's name on it, let us hope Mr. Rose, BNSF's CEO, gives his blessing(s) for 5021's restoration and resurrection. Why? For the purpose and proposal of triggering this cultural/economic domino effect, which will greatly benefit all Class 1, 2, and 3 Railroads, R.R. Suppliers and Contractors, Shippers, General Public, CA State R.R. Museum, Broadcast and Media Companies, Homeland Security, Investors, the green-house challenged environment, R.R Hobby Companies, etc. and

all present and future employees who work in their
behalfs.

Thanks Again.

