



Railroad Workers United

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What's Wrong with Single Employee Train Operations?

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At first glance, the casual observer from outside of the rail industry is prone to say that single employee train operation sounds dangerous. “What if the engineer has a heart attack?” is an often heard question. And while this question has merit, there are many other and far more complex and unanswered questions about just how single employee train operations could be accomplished safely and efficiently for the train crew, the railroad and the general public. How will the train make a back-up move? What happens when the train hits a vehicle or pedestrian? How will the train crew member deal with “bad-order” equipment in his/her train, or make pick-ups and set-outs en route? What about job briefings and calling signals, copying mandatory directives and reminders of slow orders? These are just some questions that we take up in this article.

Remote Control and “Utility Conductors”

In recent years, the Class I rail carriers have been biding their time, slowly but surely inserting language into recent contracts with both unions of the operating crafts that will facilitate their schemes to run over the road trains with a lone employee. They have made arrangements with the Brotherhood of Locomotive Engineers & Trainmen (BLET) to allow the BLET represented crew member to make use remote controlled locomotives. With this scenario, the lone operator would strap on a belt pack, dismount from the locomotive, and run the locomotive by remote control operation (RCO) using radio control from the ground. And the carriers have also made deals with the United Transportation Union (UTU) to allow for “utility conductors”; i.e. a conductor who can “attach” to one or more over-the-road trains during the course of a single tour of duty. Between the two arrangements, the rail carriers apparently believe they can safely and efficiently operate road trains with just one employee aboard as opposed to the current standard of two. We disagree.

The Limitations of RCO

Let's examine the logistics of the scenario where the crew member were to use RCO in order to “work” the train; i.e. make a pick-up or set-out of rail cars to and/or from the train. The lone crew member would dismount, and then would have to pull the head end of the train ahead a number of car lengths (perhaps just a few, possibly dozens) to complete such a procedure. Since no one would now be in the cab of the locomotive, the operator would have no “point protection” and would be pulling the locomotive down the mainline “blind”. By current (and historic) operating practice, employees are to never shove (or pull) down a main track without protection. This practice would be unsafe if any intervening road crossing was present. And if the train were to enter a signaled block, it would be impossible to perform if the crew member

could not see the signal. In any case, the rules have long stated that a train crew must not run down the main (pull or shove) without point protection and for good reason. So assuming the move were to be made in conformity to current operating practice, the crew member could make the “cut” with RCO, stop the move, walk ahead to the engine, run from the engine until past the switch and stop, walk to the rear of the cut, then once the switch is thrown, use the RCO to make the set-out. Once again, s/he could make the cut, stop, walk to the lead unit, pull forward until past the switch, then return to the rear and make the coupling with RCO. Then walk once again to the head end to depart. This would be a very time consuming and awkward maneuver, far more safely and efficiently performed with a two person crew. For such a move, a “utility conductor” might be a safer and more efficient alternative. But what about times when that worker is on the other side of the county working with another train. Or in inclement weather when the county roads are covered in snow? Or when the train is in a location that is not easily accessible by vehicle and the “U-man” would need to walk for miles down the main line to access the disable train?

Anyway, back to the RCO scenario. What if an operator had dismounted and has a problem (slip, trip, fall, broken bone, heat stroke, etc.) and has trouble contacting the dispatcher for assistance. Handheld radios do not have the reach that a locomotive radio has, and in many outlying areas, they are ineffective. And the dispatcher may not respond unless toned up, something not often possible on a hand set. Cell phones currently by rule are not permitted to be carried by crew members as a result of the Rail Safety Improvement Act of 2009, so they may not be an option. Besides, in many locations along the railroad right-of-way, there is often no cell signal.

Finally, RCO operations are far more suited to the yard, where tonnage, distances, horsepower and obstructions are all limited. Switching cars with a yard engine and a short cut of cars is a completely different animal than using RCO to run a road train with 20,000 horsepower and 15,000 trailing tons. And yards are generally made up of relatively straight tracks and are laid out flat and/or “bowled” towards the center of the yard, while the mainline is often curved and on a grade, sometimes a very steep grade. It is far more difficult and demanding to control a heavy train with multiple units on a curved grade than it is to control a short cut of cars in a yard tied to a low horsepower locomotive. And given that RCO is prone to losing its signal in the yard, on the road it could be a nightmare. Curves, tunnels, bridges, overpasses, canyon and other obstructions can render RCO unworkable at countless locations on the mainline. And in the yard, RCO is assisted by a series of “repeaters” to assist the radio signal along. These do not exist out on the road.

Limitations of the Utility Conductor

In the 1990s, the rail carriers began to use what is known as a “utility brakeman”. This yard worker “attaches” to various yard or road crews to assist as needed in switching out and making up trains. The carriers’ idea is to implement this concept on the road. But there are a number of problems here. The workplace of the mainline is dozens if not hundreds of miles long, as opposed to a freight yard which is only a few miles at the longest. Whereas most locations in the yard are quickly and easily accessible, the mainline right-of-way can be hard to access and in some cases cannot be reached at all by road. Even if the utility conductor was able to reach the train in need of assistance, s/he must know the roadways to get there which can be a daunting task especially for those not versant with the territory. In inclement weather, many of these roads are difficult to navigate and can at times be completely impassable. And if the utility conductor is miles and miles away from the train s/he is called upon to assist, the delay to the train (and other trains on the territory) could be considerable.

And what about when two or more trains are in need of assistance simultaneously? And during periods of harsh weather when switch, signal, locomotive and train failures become commonplace? Or when the railroad suffers a meltdown like we have seen in recent years following acquisitions and mergers? Long waits, clogged mainlines, delayed trains and crews expiring on the hours-of-service law would become far more common. Just imagine the damage that could have been done if single employee crews were the rule during the UP meltdowns of 1996 and 2004, or the NS crack-up in 1999!

Problems with Single Employee Train Crew Operation

There is a plethora of issues that quickly arise when we consider the scenario of single employee train operations. Many railroaders reading this will no doubt have additional points to add. RWU welcomes your input. For now, we will describe a number of these issues below.

- Going down the right of way, the single crew member will get no reminders from a second crew member for “slow orders”, track “work orders”, road crossing mechanical failure or other restrictions to movement. The single operator is on his or her own. Common rules practice today insists that the conductor remind the engineer of all of the above and more. Why would this function cease to be of any safety importance when the second crew member is abolished?
- And what about unforeseen instructions provided en route by the train dispatcher? Safe practice now is that no one at the controls of a moving train or locomotive is to copy a “mandatory directive”, so this job is squarely on the conductor. Therefore, with single employee crews, all trains that receive such instructions would be required to stop, tempting the railroad to pressure employees to copy “on the fly”. Or would the railroad simply throw out this rule, unhappy with overall delays to trains and the increase in fuel consumption this practice will result in? (By the same token, all restroom breaks would entail that the train be brought to a complete stop).
- Making a back-up move (without changing the general operating practices that have held sway for decades) would be for all intents and purposes impossible. Without a long walk with an RCO belt-pack or an on-the-spot utility conductor handy, the train could simply not back up in a safe manner.
- Without a second crew member to assist the train operator, an endless number of distractions would come into play. The lone crew member would now not only have to operate the locomotive, but would also have to do all of the talking on the radio, not just with the train dispatcher, but with signal maintainers, gang foremen, other train crews, etc. The single operator would be responsible for properly giving a visual look-over or “roll by” to other trains that are met and passed. And the single crew member would be responsible for all paperwork including the train’s manifest and the position of all hazardous materials in the train. Currently these duties fall to the conductor, thereby alleviating the train’s engineer from the multi-layered distractions that this work can cause, taking the engineer’s attention away from the immediate task at hand – running the train.
- With a single employee crew, valuable mentoring time would be lost. Many conductors work for years in the left hand seat, gaining valuable understanding of the signal system, operating rules, air brake system, etc., long before they ever become an

engineer. Without the two person crew, this “university” will be lost forever, and the entire operating employee workforce would over time invariably become less professional, less seasoned, and less safe. And this loss of education that surely would ensue by running single employee trains would have a detrimental effect on all operating employees, not just those who are new or inexperienced. The lack of two employees in the cab means a lack of informal conversation, reflection, storytelling, discussions of rules and signals, etc. Much of the learning that takes place every day a railroad worker goes to work is in the cab of the locomotive, as the two employees share their collective knowledge, experience and wisdom that each has acquired over the years. Without the two person crew, this ongoing day-to-day classroom is lost.

- As for calling signals, when a train’s engineer encounters a signal more restrictive than clear (green), railroad rules demand that the engineer “call” this signal to his/her conductor, who acknowledges the signal. (Some railroads require that *all* signals be communicated in this fashion). Without the second crew member, there is simply no one there to acknowledge the signal, and one of the oldest operating practices on the railroad would simply be cast aside as unnecessary. Which of course begs the question: If it is OK to do away with this practice, if it is not needed for the safe operation of the train under the command of a single employee, then why do the current operating rules demand that train crews do it now?
- In order to properly secure a train on an ascending grade, the operator (according to the rules) would have to tie the handbrakes at the end of the train (the bottom of the grade). This will entail walking to the rear of the train, tying the hand brakes, and then returning to the cab of the locomotive to test the brakes by releasing the air brakes (if no RCO is available). Should the hand brakes not hold, the operator must return to the rear, tie more handbrakes and repeat until they *do* hold.
- The possibility of crime against train crews would increase, as thieves and vandals will no doubt become aware that trains are being operated by a single employee. As a lone worker, in the “middle of nowhere”, or in a “tough” neighborhood late at night, the single operator is extremely vulnerable, especially once s/he is outside of the cab of the locomotive. If s/he encounters a problem, there might be no one for hours who is aware that s/he is in trouble. The operators of single employee trains are truly on their own in this scenario.
- And what about the whole question of “national security”? Since 9-11, we have heard endless speculation about the possibility of terrorism against the nation’s railroads and trains. Because it is simply impossible to patrol the entire railroad infrastructure on a regular basis, the government and the rail carriers have made it a point to state that it is up to railroad workers to notice and report suspicious activity. But without that second crew member in the cab of the locomotive, wouldn’t we be denying ourselves the possibility of early detection? The advent of single crew operations would reduce by half the number of workers in the field, workers who are intimately aware of the territory and know when something does not look right. And the lone operator that would remain – now having absorbed the duties of the second crew member in addition to running the train -- cannot be relied upon to see even a fraction of what might be out there along the right-of-way.
- Currently the railroad stresses the need for a complete and thorough “job briefing” between members of the crew at both the beginning of each tour-of-duty and when conditions change at points during the course of the trip. With a single employee crew,

there can be no job briefing as there would literally be no crew member to have a job briefing with. Which once again begs the question, why do we not need a job briefing with a single employee crew, when such briefings are considered so indispensable to safety now?

- En route, especially when a tour of duty may stretch out to 12 hours, it is common for a train's crew to become fatigued. With no one there to assist, it is very easy to lose focus, to fail to maintain situational awareness, and to nod off. Likewise, if and when a single crew member operating a train were to fall sick en route, with single employee operations there is no one to assist, to help maintain focus, attend to the radio, remind the engineer of conditions ahead, etc.
- For the lone crew member operating over the road, even simple things throughout the journey can easily cause distraction. Getting lunch from the refrigerator, retrieving a dropped pen from the floor, grabbing a coat from the firewall hook, looking up a specific rule -- all of this becomes a far more significant hindrance and a distraction to the lone crew member than when s/he has a partner to lend assistance.
- Most railroad operating rules now allow for "team napping". Given the lack of scheduling on most railroads and the nature of freight pool and extra board work, the railroad has allowed train crews to take naps when the train is stopped and secure, but only one at a time. It would follow then that with a single employee operation, the employee would be denied, by rule, the ability to take a nap at all throughout the tour-of-duty as this would leave the train unattended. Many crew members at this time make use of these "power" naps and say that they are very helpful in maintaining their situational awareness and can revive them when they are fatigued. With single employee operations, this valuable -- sometimes indispensable -- napping time would be lost.
- Without a second crew member present, the lone operator would be required at times to dismount from the locomotive to thaw, sweep and otherwise clear track switches. The same holds for changing out a broken coupler knuckle and other situations where physical labor outside in the elements is needed and no utility conductor is readily available (in fact most situations of this nature that arise there would likely be no utility conductor close by to assist). With a second crew member, the operator is ready and rested to continue to move the train forward once the physical work is done. Without the second crew member, a physically exhausted train operator is now expected to run the train and maintain situational awareness just as well as if s/he had remained inside the cab throughout the procedure.
- When an operating employee returns from vacation or other extended period away from work, the territory can at first seem unfamiliar. The worker may often feel a bit "rusty". Having that second crew member there can be of great assistance to reorientation to the territory. In addition, upon returning to work after such an absence, things may have changed -- operating rules, special instructions, physical characteristics, etc. Given the complex and arcane nature of the myriad rules and procedures that operating crews are subject to, it is easy to miss vital information. Once again, having that second crew member present who in all likelihood has been on the job while the other was absent, adds a layer of protection against this possible oversight by the train operator.

- Currently when emergency situations arise, a two-member train crew can act efficiently and effectively to deal with the emergency (unless of course both are disabled or killed). Fighting a tie fire, assisting with a train wreck (whether his/her own train or another train), dealing with a road crossing collision with a vehicle or pedestrian, and in numerous other scenarios, the lone crew member will more than likely need to dismount from the train quickly. With a two person crew, one crew member stays behind to attend to the train's safety and security while the other assists directly with the emergency. With a lone employee, there would be no other crew member to attend to the train while the crew member deals with the emergency at hand.
- When dealing with train-vehicle and train-pedestrian incidents, the lone crew member could not go back to assess the situation, assist the injured, "cut" (make a train separation to open up) a road crossing, etc. without first securing train, wasting valuable time. And while securing the train and dealing with the emergency situation, the crew member may not be able to quickly receive or transmit valuable information to the dispatcher. Thousands of such incidents take place each year resulting in property destruction, injury and death. Without that second crew member on hand to quickly assess the situation, accurately inform the dispatcher/emergency services of the nature of the incident and take expedited action, additional harm to property and human life would no doubt be the result in some cases.
- There are countless situations where it can be inconvenient, labor intensive, or downright unsafe for a crew member to dismount and/or inspect her/his train (e.g. intervening trestle, tunnel, embankment, etc.). Currently, when a train's crew members need the assistance of another crew, that crew, if available, can readily assist. However, with single crew operations, the lone crew member cannot assist another train's crew without first securing his/her own train. Upon return, the handbrakes must then be knocked off. On long trains and steep grades this can be a physically exerting and time consuming exercise. By the same token on a different note, the train's lone operator would not be able to leave the train and get a lunch, let alone a cup of coffee at a café without first securing the train.
- Currently, train crews are expected by rule to give a visual "roll by" of other trains when meeting them and alert the other train's crew of any abnormalities or unusual occurrences (shifted loads, hot wheel bearings, derailed wheels, etc.) But with just one set of eyes on a single employee crew to now run his/her own train while watching out for another's train, no doubt that such a defect -- should one exist on a passing train -- would be harder to notice and go undetected.
- With a single employee crew, there is a lack of companionship and comradery. The isolated nature of *any* prolonged, regularized lone worker situation can lead to loneliness, depression and despair. A locomotive cab is about the size of an 8X10 room. They can be cold in winter and hot in summer. The toilet can stink. And train crews are often on duty all hours of the day for up to 12 hours at a time. While truck drivers may also work alone, running a train alone is very different. Truck drivers can pull over and rest when they need to, eat or drink when they please. "Truck stops" are available 24/7 every 50 miles or so. In addition, truckers are on a highway with other motorists. If emergency services are required, they are not far off. And truckers have a CB radio and a cell phone close at hand. Today's train crew members have none of this support infrastructure available. All they have is each other. Single employee crews would eliminate the base of support that does exist.

- Finally, It stands to reason that without a partner with whom to discuss ideas, concerns, problems, issues, and the job itself throughout his/her working life, a worker may easily develop any number of mental issues. Without someone to talk to for hours on end, the mind can stray and easily wander off into a land of distraction. Without any co-workers to work alongside of, an employee can lose a sense of belonging and comradery, leading to low morale. Before long, an employee who works alone for long periods of time may experience a loss of identity and pride, and feel a keen absence of being part of something greater than oneself. In addition, there is no one to talk about wages, benefits, working conditions, safety issues and all the rest to make for a better working environment. There is no way to gage the mood of one's co-workers and have any kind of discussion of how to address collective problems and issues. As a result, solidarity will no doubt suffer. The power of the union would no doubt decline. General job dissatisfaction among train crew workers is bound to increase.

As a result, railroad train crew employees will simply not have the longevity that they do today. Many will simply not want to work in an isolated environment day in and day out, year after year. Employee turnover will increase, bringing all of the associated problems into the workplace. And as a result of the high turnover, the strength of the union will again be diminished. Temporary workers do not generally make good union members when they are dissatisfied, isolated, and looking to get out of the industry.

Summary

In conclusion, single employee train crews are unsafe and dangerous for the crews that operate them, other railroad workers, those living along the tracks, motorists and pedestrians, for the community in general and society at large. Combining both current jobs (conductor and engineer) into one will mean more crew fatigue, less focus, more distraction and a decline in operator situational awareness. The loss of that second pair of eyes and eyes would result in a decline in safety on the railroad and would be a detriment to national security and public safety. Single employee trains crews are unsafe and inefficient in all but the most routine and straight forward railroad work. For many if not most tours-of-duty, they would present complex challenges for the train's lone operator. Single crew operations will result in a loss of valuable informal education of train crews both new and old, and lead to less capable and knowledgeable crew members in general as a result. Finally, loneliness, isolation and a loss of comradery and spirit would be the inevitable result, bringing with it mental problems, job dissatisfaction, and staff turnover.

Railroad Workers united sees the single employee crew issue as a critical one for railroaders in North America in the 21st century. We have no alternative. We must fight to the bitter end to preserve a minimum of two employees on every train crew – both road and yard. We ask all railroad workers, the rest of organized labor, the working class in general, environmental and community groups to stand with us. We can and we must win this crucial battle.

The author has worked as an Amtrak engineer for the last 10 years. He formerly worked as a brakeman, conductor and engineer for Conrail and Norfolk Southern in Chicago, IL. Please email with comments and criticisms to secretary@railroadworkersunited.org.