

Remote Control – Myth vs. Fact

The following information presents the facts on remote control locomotive technology (RCL) in order to set the record straight.

BACKGROUND

Remote control locomotive technology (RCL) refers to a locomotive that, through use of a radio transmitter and receiver system, can be operated by a person not physically located inside the locomotive cab. Before remote control, rail yard employees and engineers communicated by radio or through a series of hand signals. RCL reduces miscommunication because operators on the ground direct the locomotive's speed and operation by sending digital signals directly to an onboard computer. The system brings the locomotive to a stop if communication is interrupted.

The introduction of RCL is under way in all U.S. Class I railroads. The implementation began early in 2002 and comes after other North American railroads have used this technology successfully for over ten years to improve safety and productivity.

In 2001, the Federal Railroad Administration issued comprehensive guidelines addressing the design, operation, training and inspection of remote control technology. In addition, the major Canadian railroads have reported improved safety since adopting remote control technology.

Myth vs. Fact

SAFETY

Myth: Remote control operations create a dangerous workplace.

Fact: Experience on railroads that have used remote control shows that over time, the use of remote control reduces the incidence of yard injuries by improving communication during yard and switching operations.

Myth: The Canadian experience with remote control doesn't necessarily mean U.S. railroads will see similar safety improvements.

Fact: Canadian railroad operations closely resemble those of the U.S. The Canadian National has used remote control since 1989 and the technology now accounts for almost half of its yard operations – with consistently lower accident rates. The Canadian Pacific has used remote control since 1994 and says that yard accidents are one-third what they used to be. The experience of U.S. railroads during the first year of using the technology has produced similar positive results.

Myth: If several U.S. cities have passed resolutions calling remote control unsafe, they must be.

Fact: The Brotherhood of Locomotive Engineers (BLE) failed to receive the agreement with the major U.S. railroads on implementing remote control operations and securing those jobs for its members. Since that time, the BLE has claimed that remote control isn't safe and tried to get local governments to pass resolutions opposing remote control operations. While some localities have passed these resolutions, most of them call for further study by the FRA. Further, many other localities have not gone along with the BLE by passing such resolutions. In fact, three states (Alabama, Georgia and South Carolina) and the American Legislative Exchange Council (ALEC) have passed resolutions praising U.S. railroads for implementing remote control technology to improve safety and efficiency.

Myth: Unmanned locomotives are a hazard at grade crossings.

Fact: "Unmanned" is an unfair characterization of these operations. Locomotives operated by remote control do not pose any increased risk at grade crossings. These locomotives are operating at half range of vision, not exceeding 15 mph, and they activate any automated crossing warning devices just as conventional locomotives do. In addition, operators blow the locomotive horn at all crossings. Operators are either at the crossing, aboard remote control locomotives or walking alongside. When there is a crossing (private or public) within a remote control zone, the crossing is barricaded and made inaccessible to all vehicular traffic during the zone activation period.

Myth: The railroads are not reporting incidents and accidents that have occurred due to remote control.

Fact: Railroads comply with all federal reporting standards for train accidents and employee injuries. Every accident involving remote control operations is investigated thoroughly, and each unit involved is inspected carefully. Accidents that have occurred are largely due to factors other than the remote control technology or operation.

Myth: Remote control isn't safe for the employees who are working a cut of cars, especially if they can't see each other.

Fact: When two employees are engaged in a switching operation, only one can control the movement. (Both employees are able to stop the movement at any time.) The locomotive will automatically be brought to a stop if remote control communication is interrupted or the operator does not indicate alertness every 60 seconds. If an employee falls or the unit tilts more than 45 degrees, an alarm will sound and the locomotive will be brought to a stop after a few seconds. The ground service employee with control provides a greater level of safety than traditional operations.

Myth: The unit puts a strain on the operator who has to carry it around.

Fact: As technology has evolved and improved, the operator control unit has gotten lighter – some remote control units weigh little more than 3 pounds. Railroads and their employees have worked with manufacturers to produce an ergonomically designed harness that helps to distribute the weight.

Myth: Remote control creates the danger of a runaway locomotive.

Fact: Remote control prevents runaway locomotives with an automatic stop feature. Operators have the capability to stop any movement. If communication is interrupted between an operator control unit and the locomotive control on board the engine, the locomotive automatically stops.

Myth: Remote control can't be safe because the FRA says it doesn't have data "on which to base an objective safety analysis and must therefore proceed prudently." (FRA Safety Advisory 2001-01)

Fact: The major Canadian railroads have operated remote control technology for ten years with significantly improved safety results. Safety data currently being compiled by the U.S. Class I railroads, show a sharp reduction in FRA-reportable train accidents when comparing remote control to conventional operations. FRA is acting prudently, permitting operations to go forward but monitoring the implementation and performance carefully. As the FRA itself said on May 1, 2003, "Based on current safety data available to the FRA, there is nothing that would indicate RCL operations are any less safe than conventional operations."

JOB IMPACT

Myth: Remote control is a “job killer” disguised as a safety device.

Fact: U.S. railroads began using remote control in 2002, after reaching agreement with the United Transportation Union (UTU) over implementing the technology. The Brotherhood of Locomotive Engineers (BLE) challenged this agreement because it wanted control over remote control jobs. After having lost its challenge through the arbitration process, the BLE now claims that RCL operations aren’t safe. However, the BLE has signed agreements giving it control over RCL implementation on at least two large regional railroads. On those railroads, it doesn’t challenge the safety of remote control.

Myth: Railroads have already reduced employment and don’t need to implement remote control.

Fact: Safety is the overriding reason for implementation. But another is economic efficiency. Most railroads don’t earn their cost of capital, and the industry is extremely capital-intensive requiring huge expenditures for locomotives, cars, infrastructure, and technology. However, since passage of the Staggers Rail Act in 1980, freight railroads have been among the most productive of all U.S. industries. Productivity gains have allowed railroads to offer competitive prices for transportation services while plowing hundreds of billions of dollars back into their systems. Continued productivity gains are critical if railroads are to continue to offer the safest, most efficient, and lowest cost transportation service possible.

TRAINING

Myth: Remote control operators lack sufficient training.

Fact: All remote control operators must complete classroom courses and at least 80 hours of training. The railroads are required to submit training programs to the Federal Railroad Administration for approval. Most remote control operators are experienced veterans in the industry.

Myth: 80 hours of training isn’t enough to operate remote control technology, especially compared to the time that a locomotive engineer spends in training.

Fact: The training adequately prepares employees to operate remote control units, and the FRA agrees. The remote control operators are not asked to do the same work that qualified locomotive engineers perform. Yard and industry remote control work is performed with a few cars at speeds that do not exceed 15 mph. Most locomotive engineers are in charge of over-the-road operations

with trains weighing thousands of tons and operating at maximum track speeds. That certainly requires more specialized training.

YARD PRODUCTIVITY AND OTHER ISSUES

Myth: The introduction of remote control technology is slowing down classification of cars in the yards.

Fact: Yard productivity generally remains as high as previous levels, although the slow U.S. economy has reduced business levels in some areas. In some cases, yard productivity may slow somewhat while employees get used to remote control operations. However, this is a temporary situation.

Myth: The railroads surprised employees with this technology.

Fact: Remote control has been in use in many industrial applications for years. The FRA has been studying remote control since 1993, and this technology has been a subject of discussions with the unions since 1995.

Myth: It is dangerous to move hazardous materials by remote control, and they present a target for potential terrorism.

Fact: With adherence to all safety and operating rules, moving hazardous materials by remote control meets the same high safety standard as moving them by conventional locomotive. The nation's railroads have been commended for their security plan and processes to protect infrastructure and commodities. Increased vigilance is one of the most effective deterrents.

Myth: You can't tell which locomotives have remote control equipment and which don't.

Fact: Locomotives equipped with remote control technology have a clearly visible yellow strobe light on the cab roof. When the locomotive is in remote mode, the yellow light flashes. In addition, the bell sounds when the locomotive begins to move. All yard and industrial tracks where remote control operations are taking place are clearly marked.

Myth: Remote control operations eliminate the engineer's ability to determine by "feel" if cars have derailed.

Fact: Most derailments are detected after the train stops, or the air hose separates, often at a switch. Remote control operators on the ground are able to see or hear derailments much sooner than someone in the cab, and can take action more quickly. This often decreases the severity of a derailment. Preliminary data indicates significantly fewer multiple-car (3 or more) derailments (8 using remote control and 204 using conventional techniques.) Remember – rules require that remote control operators keep their trains/cars in sight at all times.