



Inside THE RAIL

From NASA's Confidential Close Call Reporting System



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Job Briefings

The team of C3RS Expert Rail Safety Analysts at NASA all agree: communication is key to safety. Job Briefings are one of the methods of communicating operational and environmental factors on the railroad. A Job Briefing is a conversation about the work to be done, how to accomplish that work and the potential safety hazards that might be encountered. It is important that pertinent information is provided and understood. In the initial Job Briefing, questions or discrepancies should be discussed and resolved. New information must be shared immediately, the Job Briefing should change as the situation changes. Repetition of instructions should be utilized to confirm that information has been received correctly. The following three C3RS reports are examples of how close calls might have been prevented by improved communication.



Call Back in 10 minutes...

Calling a Dispatcher for authority or a signal is a common occurrence on the railroad, but it is important to get the communication right. A Console Operator was relaying the Job Briefing for authority between a Maintenance Trackcar Driver and a Tower Operator.

■ *A Console Operator from another carrier asked me, the Tower Operator at yard X, for permission to drill a trackcar into my yard to get behind the Console Operator's home signal, to then go back into his territory. After a Job Briefing, I told the Console Operator that the Section Dispatcher from my railroad (that controls the signal into our yard), was too busy to do the move at this time, but we would talk again in 10 minutes. Shortly thereafter, an alarm sounded, indicating a possible signal overrun at a signal on the lead coming into the yard. It was later determined by a manager on the scene that the trackcar went through the signal on the lead into the yard while the signal was displaying Stop.*

The Tower Operator gave some possible solutions.

■ *Here are some suggestions to prevent this from happening again:*
1) Trackcar drivers or pilots entering yard X must be familiar with our operating rules. 2) Trackcar drivers or pilots must be familiar with the physical characteristics of our yard. If the trackcar driver or pilot is not familiar with our rules or the physical

characteristics of this yard, then a qualified pilot should be used for the move. 3) Trackcar drivers or pilots must have a working radio tuned to the proper channel and do a radio check before attempting to enter the yard to confirm that they are in direct communication with the yard. 4) The yard facility must have a working intercom in order to communicate immediately with all the dispatchers and console operators.

Radio Repetition

Operating conditions can often change en route. In this example, an Engineer received new information from the Dispatcher and attempted to update the Job Briefing with his Conductor. Radio and intercom issues hampered communication between the Engineer and his crew, and important information was

not exchanged. If the Conductor had verified the instructions by repeating them back to the Engineer, it may have prevented this dangerous situation.

■ *We were told two stations prior that we would be discharging our passengers across tracks X and Y. I repeated back the information to the Dispatcher and spoke to my Conductor over the radio, who repeated that he understood we were low leveling. I replied "Roger, across tracks X and Y" to which he replied only "Roger."*

““ **The single biggest problem in communication is the illusion that it has taken place.** ””

- George Bernard Shaw

Upon arriving at the station, we made our low level stop and began unloading passengers. I did not notice until there

was a crowd of people already on the tracks, that they had opened the doors on the wrong side and were discharging passengers across live tracks. I immediately got on the radio to tell the Conductor to get them back to the train, but did not get a response. I called the Dispatcher and asked for protection across the live tracks and was told to wait a second. I yelled over the PA and intercom that they were on the wrong tracks. The Dispatcher came back and said that he couldn't give protection across those tracks. At that point, the Conductor was getting back on the train so we closed the doors and continued to the next station where we properly low leveled across the protected tracks.

At the end of the trip, I spoke to my Conductor to find out what went wrong and was told that he had misheard the protected track to be Z instead of tracks X and Y. The Conductor had not heard me over the radio at any time after the initial conversation when the Dispatcher told us we were low leveling, nor had he heard anything over the PA or intercom, as they were not working.



The Life of a C³RS Report

The following illustrates the C³RS process of a report's analysis. This example shows a missed opportunity for an en route or rolling Job Briefing that might have made a difference.

Out on the rail, a close call occurred. Recognizing the potential of a safety incident and wanting to help prevent similar incidents from occurring in the future, a railroader submitted a C³RS report. Received either electronically through the website or in paper form through the mail, the new C³RS report was initially screened by two separate C³RS Expert Analysts.

Conductor's Narrative:

■ *The train normally comes in on track X in a station where I open both sides of the train. Today, we came in on track Y instead. I then simultaneously opened the doors and looked out the window, then immediately closed the doors. Track Y only has a platform on one side. I think it would be a good idea to have the Engineer to call out the track number as backup to help prevent a recurrent incident.*

“ They say when one door closes, another door opens. Unfortunately, sometimes that door opens off the platform. ”

— C³RS Expert Analyst

The person that submitted the C³RS report was contacted by an Expert Analyst to discuss the report and to gather additional details about the circumstances of the event that might not have been originally provided. The Analyst summarized relevant information from this conversation in the callback.

Analyst's Callback Summary:

The normal arrival track has platforms on both sides, but the newly designated arrival track did not. There was no communication from the Engineer to the Conductor regarding the track change. The Engineer was not regularly assigned, he was filling in from the extra list and may not have known the track change was unusual. The regular Engineer does communicate information like track changes, though it is not required by rule. The doors were only open for an instant, so no passengers attempted to detrain.

The Analyst then completed the incident coding and de-identified the report by removing identifying remarks or names. The Identification strip (top portion of the report) was returned to the person reporting as proof of participation in the program. NASA retained none of the person's identifiable information. The de-identified report was quality checked and sent to the carrier's Peer Review Team for further, local review. This de-identified report was also added to an internal database for future research.

Online Resources:

- Visit c3rs.arc.nasa.gov for a detailed overview of C³RS, instructions on how to submit C³RS reports, report forms and a list of Frequently Asked Questions.
- See fra.dot.gov/c3rs for more information and access to the IMOU agreements of the participating carriers and unions.

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Train Crew	611		Train Crew	2660
Dispatching	44	Dispatching	160	
Trainee / Other	17	Trainee / Other	96	
Mechanical	5	Oversight	40	
Maintenance	1	Mechanical	31	
		Maintenance	10	