

4/20/18

Disabled Trains Incident Review Timeline

- 1547 Southbound train 4039/40, trip 190, main track one, strikes steady arm at MP 19.99 and bracket hangs down after train passes.
- 1601 Southbound Train 4045/46, trip 192, main track one, strikes broken steady arm bracket at MP 19.99.
- 1604 Operator Strickland, trip 192, 4045/46 reports propulsion, HVAC & general fault and came to rest at MP 18.41 (single track area at Pena). Transportation Supervisor Alonzo & Santizo assisting over the radio. Operator cycled the FBCU & APU breaker and was still unable to build air.
- 1605 Trip 192 reports that he reset the propulsion fault but it comes back when he tries to move. OCC asked Transportation Supervisor Alonzo if he has any suggestions. Transportation Supervisor Alonzo asked for the train's location and the operator advises that he is at MP 18.41. OCC clarifies and says "single track Pena". T228 advises of being in route. T221 instructs the operator to toggle the FBC breaker and also reset the ADU.
- 1607 OCC calls trip 192 and gives the operator permission to toggle the FBCU breaker. Transportation Supervisor Alonzo asked trip 192 what the air gauge is reading. Trip 192 advises that the air is slowly leaking out and advises that he is going to attempt to reset the air. Transportation Supervisor Alonzo asked if it sounded like he went into emergency braking. Trip 192 reports that his TSO advised that it sounded like something hit the train on top. Transportation Supervisor Alonzo instructed Trip 192 to look out of the window and advise if his pan appeared to be damaged. Trip 192 advises that it looks like his pan is still up. Transportation Supervisor Alonzo instructed Trip 192 to try to reset the air by putting the train in suppression and if that did not work to look at the emergency pull handle in the cab and verify that it didn't accidentally drop down.
- 1608 Trip 192 reports still trying to recover air.
- 1609 Trip 192 advises that he is not able to reset the air and that he only has emergency lighting now. Transportation Supervisor Alonzo asked Trip 192 if he reset the FBCU.
- 1610 Trip 192 advises that he just reset the FBCU and is rebuilding air at this time. 192 advises that he has rebuilt air and has reset the FBCU but still has no power. Trip 192 advises that his TSO will take a better look at the pantograph to see if it's damaged.
- 1611 Transportation Supervisor Santizo advises that trip 192's pantograph is down, he can see it from the highway and it is not up.
- 1612 Operator Holcomb, trip 194 (4017/18) departs train from DIA on track 1.
- 1614 OCC calls Trip 194, train 4017/18, Operator Holcomb and advises that he is going to be the "rescue train and he is going to couple from behind, let me know when you are stopped at the 2S, over". 194 repeats the instructions back.
- Lessons Learned:** Pantograph down is indication of damage and potential for Overhead Catenary System (OCS) issues even if traction power system is showing normal.
- Corrective Action:** Add confirmation inspection of OCS to "Rescue of a Disabled Train" SOP.
- 1617 Joe Phillips, Deputy Chief Mechanical Officer, Luis Rivera, Deputy Chief Engineer and Ron Benson, Chief Engineer in OCC.

1618 Notified Russell Stone, OCC Manager (traveling) who called Kimani Grant, Deputy OCC Manager.

1618 Fleming Castillo, Traction Power Supervisor, notified.

1618 Operator Holcomb, trip 194 (4017/18) reports no propulsion at MP 19.47 on track 1.

Lessons Learned: Incident changed from simple rescue event to emergency operation with potential train evacuations. Internal incident command procedures should have initiated.

Corrective Action: Retrain personnel in principles of incident management and utilize table top examples to drive critical thinking.

1619 Dispatcher Haithcox advised operators to make announcements.

1619 PA VMS announcements to stations along the alignment.

1619 ReadyOps sent. Mike Claiborne, Chief Transportation Officer notified.

1620 Joe Phillips advises the pantographs cannot be reset on both trains. Sheer pin is a safety feature.

1623 OCC requests Bus Bridge. Jaime with BOCC will call the OCC back.

1624 OCC confirmed on CCTV that steady arm bracket hanging from the OCS, wires still up.

1634 Carl Atencio, Chief Mechanical Officer notified.

1637 SCC notified.

1642 Rescue Train 1, Operator Bruder, trip 197 (4015/16) departs 61st/ Pena station to rescue Operator Strickland, trip 192, train 4045/46.

1655 DIA notified.

1655 Operator Lopes (trip 64), 4059/60- running express from DUS to Peoria.

1656 Confirmed bus bridge in place from 61st/ Pena – DIA (six buses).

1700 Reminded operators of delay announcements.

1700 Rescue Train 1, Trip 197 arrives to rescue Trip 192.

1700 ReadyOps-UPDATE: 2 trains (192 & 194) currently disabled near CP Pena. A rescue train is in route. Notifications have been made. Updates to follow.

1703 Allen Miller, RTD Sr. Manager Commuter Rail Contracted Services called the OCC for an update.

1703 ReadyOps-UPDATE: Bus service will be available between 61/ Pena and DIA.

1704 Advised operators to make on board delay announcements.

1711 Jeff Whiteman, RTD Systems Project Manager called the OCC for an update.

1713 Rider Alert: **Service disruption** Effective: April 20, 2018 4:20PM - TBD

Due to operational difficulties at Pena, we are experiencing 60 delays in University of Colorado A Line service. Please allow extra travel time during the next 2 hours. We apologize for any inconvenience.

1714 Anne Herzenberg, General Manager called the OCC for an update.

1714 Transportation Supervisor Santizo requested authorization to make a coupling move (Rescue train 1 – Trip 192).

1719 Rescue train 1 (4015/16) is coupled to Trip 192 (4045/46). The couple was successful. Supervisor Matt Alonzo arrived to assist Transportation Supervisor Santizo. Operator Bruder switched ends and tried to build air but wasn't able to do it. There was air leaking between disabled train and the rescue train. After multiple failed attempts, Supervisor Santizo contacted the OCC and was advised to check all the emergency handles on the disabled train, as well as cut off the emergency valve above the driver side. After following these steps, Operator Bruder was able to rebuild air but unable to perform a class 2 air brake test, as the brake cylinders would not release. Supervisor Alonzo was then given authorization from the OCC to uncouple the trains and then couple them again, however the trains had issues uncoupling. The OCC instructed supervisor Alonzo to locate a push button on the observer side by the anti-freeze reservoir and push it to try and uncouple the trains. Supervisors Alonzo and Santizo tried from both trains and it was unsuccessful. The OCC instructed Supervisor Alonzo to use the T-bar and manually uncouple, which was successful. Once this was done, Operator Bruder proceeded to test for class 2 air brake test which, again, was unsuccessful. Supervisor Alonzo contacted the OCC again and they advised him to start cutting out all the brake valves from the disabled train. At that point, Supervisor Alonzo advised Supervisor Santizo to go the other disabled train.

Lessons Learned: "Rescue of a Disabled Train" SOP provides a detailed pictorial description of the procedures required to rescue a disabled train under various circumstances. The transportation supervisors responding did not have the procedure with them on site. Additionally, the stand-alone SOP is not part of the Emergency Operations and Incident Management Plan which is the guiding document for the OCC.

Corrective Action: All transportation supervisors were reissued the SOP and are required to carry it at all times when working in the field. The SOP will be added to the Emergency Operations and Incident Management Plan for quick access by the OCC. Hands-on field practical training will be conducted with the transportation supervisors on the procedures contained in the Rescue of a Disable Train SOP. VM will dispatch a technician to support the transportation team in the field.

1727 Luis Rivera confirms an OCS steady arm with a broken bracket is the issue at MP 19.99. He confirmed track 2 is okay to use.

Lessons Learned: The second supervisor could have been dispatched to the second train location to perform concurrent rescue efforts. This could have saved an hour for the rescue of the second train.

Corrective Action: Utilize the retraining in incident management listed above to ensure we maximize recovery efforts.

1730 Advised operators to make more delay announcements on trains.

1733 Kimani Grant updated.

1735 Operator Chandler at 61st & Pena station confirmed buses are there.

1738 Rider Alert: **Service disruption** Effective: April 20, 2018 4:20PM - TBD

Due to operational difficulties, the University of Colorado A Line is experiencing delays up to 60 minutes. Bus service is in place between 61st and Pena Station and Denver Airport Station. Please allow extra travel time during this time. Updates to follow.

Eastbound: Expect delays of up to 60 minutes. Bus service in place between 61st and Pena and Denver Airport stations.

Westbound: Expect delays of up to 60 minutes. Bus service is in place between 61st and Pena and Denver Airport stations.

1740 Nadia Garas, DTP Projects Communication Manager called the OCC for an update.

1741 Operator Nicholson confirmed busses at DIA are at gate 6.

1746 Eric Weber, Chief Safety & Security Officer called the OCC for an update.

1753 Desmond Underwood, DIA Asst. Airport Operations Manager advised the OCC of disgruntle passengers threatening to de-board Trip 194.

1805 Eric Weber called the OCC for an update.

1806 OCC asked Mike Claiborne to evacuate Trip 194, he advises against evacuation.

1827 Authorized Luis Rivera to close MOD E12-6; confirmed 1831. This allowed both tracks to be used at DIA during OCS repairs.

1827 Passengers will move to rescue train but train will remain disabled. Per Joe Phillips from Claiborne.

1834 Transportation Supervisor Santizo walking up to second disabled train, 4017/18.

1841 Moving passengers from disabled train 192 (4045/46) to rescue train 1 (4015/16).

1847 Rescue train 1 on the move (4015/16, 4045/46).

1854 ReadyOps-UPDATE: Disabled train has been rescued and is now on the move southbound to 61st/ Pena.

1857 Nadia Garas called the OCC for an update.

1911 Transportation Supervisor Alonzo advised the OCC: "walking on track 2 to assist w/ disabled train at 61st/ Pena."

1913 Rescue train 1 (4015/16, 4045/46) arrives at 61st & Pena station.

1915 Transportation supervisor Santizo switches channel 3 to couple.

1918 Authorized to do a soft cut out on train 4019/20.

1919 ReadyOps-UPDATE: second disabled train is being rescued. Updates to follow.

1921 Rescue train 1 (4015/16, 4045/46) now leaving 61st & Pena station to Sable siding at restricted speed.

1929 Trip 215 first train to proceed to DIA. OCC did not communicate with field personnel that train would be approaching.

Lessons Learned: Not establishing a railroad operations commander (ROC) allowed for inconsistencies in communication between the OCC and field personnel concerning train movements as the alignment was opening back up for train movements.

Corrective Action: Require ROC to be established for all events. All required incident location train movements will be approved/coordinated with the authority of the ROC.

1929 Rescue Train 1 (4015/16, 4045/46) advised OCC that a TSO is getting off at 40th/ Airport.

1933 Rescue Train 2, coupled and is now transferring passengers to rescue train 2 from disabled train.

1946 Supervisor Alonzo cut out all trailing car brakes, Joe Phillips advised to cut them back in so train can proceed at MAS. Brakes were cut back in.

1953 Rescue Train 2 - Authorized to proceed in service at MAS.

1953 ReadyOps- UPDATE: second train has been rescued and is now on the move southbound.

1959 Supervisor Alonzo clear of the tracks.

1959 Bus bridge cancelled by Travis Johnson.

2002 ReadyOps- UPDATE: the bus bridge has been cancelled.

2150 ReadyOps- UPDATE: OCS repair has been completed at MP 19.99. Trains may now resume normal operations on track 1.

2225 Rider Alert: **Service disruption** Effective: April 20, 2018 10:25PM - TBD

Trains are now back on schedule on the University of Colorado A Line. Thank you for your patience.

Lessons Learned: DTO received complaints that there were inadequate announcements on board trains. Review of audio tapes reveals that announcements were given frequently on most trains affected by the incidents with the exception of the incident trips (192 and 194). Trips 192 and 194 could not receive recorded messages after loss of power. Announcements are made by the operator utilizing the PA system.

Corrective Action: Reissue and retrain operators on announcement protocol. Customer Service Standard procedures outline announcements every five minutes.