

Weekly MRS review

28/08/2019

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Since beginning of Trial Run (August 3<sup>rd</sup> to August 26<sup>th</sup>) – Main events

- Within 752 WO, we have experienced 145 main events which would have affected the service :
  - ✓ including 104 related to NVR, PEI and PIS.
  - ✓ remains 41 main events

Today's presentation covers the last main events (6 events).

Since beginning TRIAL RUN (August 3<sup>rd</sup> to August 26<sup>th</sup>) – Main events per function

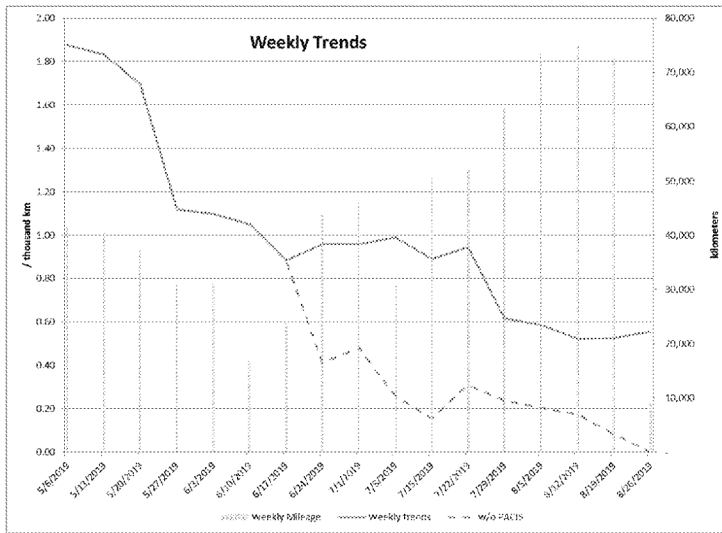
Date	Mileage (DOR)	Doors	CCTV	PA	PIS	Mechanical brake	TCMS (DDU, MPU)	Low Voltage	Voltage & Traction	Flat wheel/vibration	Air Supply	Others	Total		
			(55- >58)	(60- >65)	(66)										
8/3/2018	10,110	0	3	3	1	0	1	0	0	0	0	0	0	0	first Presentation = 61 - PACIS = 21
8/4/2018	7,771	0	1	2	1	0	1	0	0	0	0	1	0	0	
8/5/2018	11,826	0	0	0	1	0	0	0	1	0	1	0	0	0	
8/6/2018	11,073	0	1	4	0	0	1	0	4	0	0	1	0	0	
8/7/2018	10,280	0	1	2	3	1	0	0	1	0	1	1	0	0	
8/8/2018	10,351	0	2	2	0	1	0	0	0	0	0	1	0	0	
8/9/2018	11,835	0	1	2	1	1	0	0	0	0	0	0	0	0	
8/10/2018	10,323	0	1	2	0	0	0	0	0	0	0	0	0	0	
8/11/2018	7,733	0	0	0	2	1	0	0	0	0	0	0	0	0	
8/12/2018	11,992	0	1	0	0	0	1	0	1	0	0	0	0	0	
8/13/2018	11,070	0	1	1	0	0	0	0	2	0	0	1	0	0	Second presentation = 41 events - PACIS = 14 events
8/14/2018	11,435	0	2	3	2	0	1	0	0	0	0	0	0	0	
8/15/2018	11,137	0	1	1	2	0	1	0	1	0	0	0	0	0	
8/16/2018	11,437	0	1	3	1	1	1	0	0	0	0	0	0	0	
8/17/2018	10,093	0	1	3	0	0	1	0	0	0	1	0	0	0	
8/18/2018	7,610	0	1	1	1	0	0	0	0	0	0	1	0	0	
8/19/2018	11,133	0	0	1	1	1	0	0	1	0	0	1	0	0	
8/20/2018	11,303	0	0	1	4	0	1	0	0	0	0	3	0	0	Third presentation = 43 events - PACIS = 6 events
8/21/2018	11,688	0	0	1	3	0	0	0	1	0	0	0	0	0	
8/22/2018	11,407	0	0	1	3	0	0	0	0	0	0	0	0	0	
8/23/2018	8,918	0	1	1	3	0	0	0	0	0	0	0	0	0	
8/24/2018	9,000	0	1	3	4	0	0	0	0	0	0	0	0	0	
8/25/2018	9,000	0	4	0	2	0	0	0	0	0	0	1	0	0	
Estimations	9,000	0	1	2	2	0	0	0	0	0	0	0	0	0	
<b>Total</b>	<b>249,314</b>		<b>25</b>	<b>39</b>	<b>40</b>	<b>6</b>	<b>9</b>		<b>12</b>		<b>3</b>	<b>11</b>		<b>45</b>	

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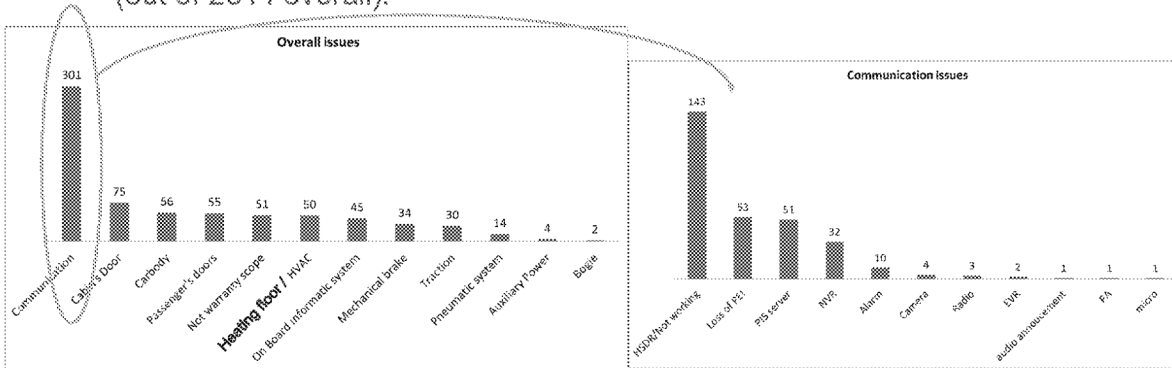


### Reliability – weekly trends



From August 3<sup>rd</sup> to August 26<sup>th</sup> – All events

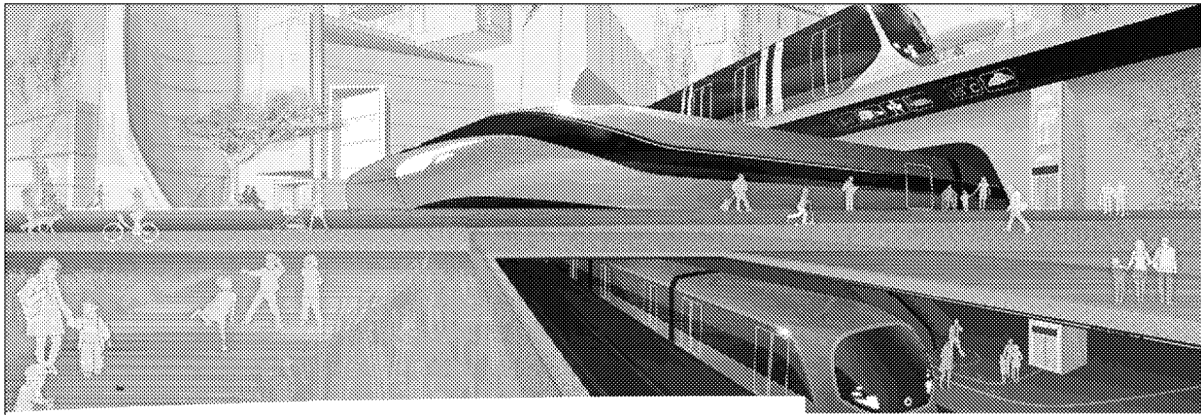
- From DOR from RTM, 247.514 km, 752 MRS related to vehicle (out of 2344 overall).



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Technical topics

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## HSDR/PACIS functions

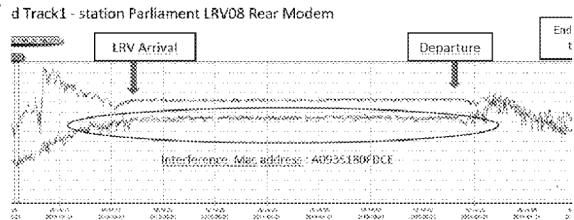
### Rear vision :

- Implementation of WSS software on the fleet. Modem redundancy, configuration conflict corrected on the fleet but issue with some of the reconfiguration.

“Observation period” see MRS table (following page)

Delay in obtention of Lyon & Parliament stations wayside :

- in case of forced short stop (5s between door open and door closure)
- Potential interferences with other systems.



In case of loss of mission (less than 10% of switching for ATO to ATP-M), driver's intervention to select the station.

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## HSDR/PACIS functions (MRS)

Date	Time	LRV	SW version	IOS	No IOS subcategory	Description	Note
22/08/19	8:20 PM	LRV21	5.4.6	No IOS	Wrong media displayed	ERM V Stams reporting on M01 on LRV 01 CCTV cameras are showing this Tuesday's	Modern conf file was not correct, has been updated
20/08/19	9:16 AM	LRV06	5.4.7	No IOS	No Rearview	Morgan on LRV06 M01 the CCTV is loading, only as doors are closing (Kannel station)	Modern conf file was not correct, has been updated
27/08/19	10:22 AM	LRV05	5.4.7	No IOS	No Rearview	Morgan reporting in train on M01 that it is only camera stations accessible by the camera not loading CCTV	Modern conf file was not correct, has been updated
22/08/19	11:47 AM	LRV05	5.4.7	No IOS	No Rearview	on LRV05 M01 the CCTV not loading at station	Modern conf file was not correct, has been updated
21/08/19	9:43 PM	LRV16	5.4.6	No IOS	Wrong media displayed	LRV16 M02 only showing TUE back 2 CCTV cameras on train as set based trip reported by 990 of 990	IOS file was to be investigated
22/08/19	10:52 AM	LRV04	5.4.7	No IOS	No Rearview	reporting in train on M01 that not loading non camera stations intermittently should read not loading CCTV	to be investigated
19/08/19	5:20 AM	LRV10	5.4.6	No IOS	No Rearview	M01 CCTV back screen no power and missing not working	Power cable to be investigated
27/08/19	9:00 AM	LRV12	5.4.6	No IOS	No Rearview	CCTV not working	to be investigated
21/08/19	8:40 PM	LRV13	5.4.6	No IOS	Wrong media displayed	LRV13 M02 only showing TUE 990 cameras on that set based trip	IOS file was to be investigated
19/08/19	9:58 AM	LRV16	5.4.6	No IOS	No Rearview	CCTV IS NOT CONNECTING TO PLATFORM CAMERAS	Modern conf file was not correct, has been updated
20/08/19	8:21 AM	LRV16	5.4.6	No IOS	No Rearview	Only screen	Modern conf file was not correct, has been updated
21/08/19	7:02 AM	LRV25	5.4.7	No IOS	No Rearview	ERM B Grewson reporting train 26 M02 CCTV is completely greyed out and will not load	Modern conf file was not correct, has been updated
20/08/19	8:38 AM	LRV25	5.4.7	No IOS	No Rearview	Only screen	Modern conf file was not correct, has been updated
18/08/19	9:01 AM	LRV27	5.4.6	No IOS	No Rearview	CCTV M01 not connecting to platform cameras	Modern conf file was not correct, has been updated
22/08/19	3:03 PM	LRV31	5.4.7	No IOS	No rearview on left or right side	reporting CCTV on train 33 M02 left side are greyed out / not working	IOS file was investigated on the 22nd
27/08/19	7:41 AM	LRV34	5.4.6	No IOS	No rearview on left or right side	reporting CCTV left side of M02 on train 33 is not working	to be investigated

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### HSDR/PACIS functions (fleet mapping on August 27<sup>th</sup> evening)





LRV	r2797/RVM98/TPC 2806 (5.4.9)	r2797/RVM98/TPC21 2804 DB 3.31 (5.4.8)	r2797/96/2801(5.4.7) DB 3.31	r2797/96 (5.4.6) DB 3.31
LRV01			15/08/2019 13h30	15/08/2019 13h30
LRV02				15/08/2019 13h30
LRV03	26/08	23/08/2019	15/08/2019 13h30	15/08/2019 13h30
LRV04				15/08/2019 13h30 X
LRV05			15/08/2019 13h30	15/08/2019 13h30
LRV06	26/08	23/08/2019		15/08/2019 13h30 X
LRV07				15/08/2019 13h30 (only 15/08)
LRV08	26/08			15/08/2019 13h30 X
LRV09			15/08/2019 13h30	15/08/2019 13h30
LRV10				15/08/2019 13h30
LRV11				15/08/2019 13h30 X
LRV12				15/08/2019 13h30 X
LRV13				15/08/2019 13h30
LRV14				15/08/2019 13h30 X
LRV15				15/08/2019 13h30
LRV16				15/08/2019 13h30
LRV17			15/08/2019 13h30	15/08/2019 13h30 X
LRV18			15/08/2019 13h30	15/08/2019 13h30 X
LRV19				15/08/2019 13h30
LRV20				15/08/2019 13h30
LRV21				15/08/2019 13h30 (only 15/08)
LRV22				15/08/2019 13h30 (only 15/08)
LRV23		23/08/2019		15/08/2019 13h30 (only 15/08)
LRV24				15/08/2019 13h30
LRV25			15/08/2019 13h30	15/08/2019 13h30 X
LRV26				15/08/2019
LRV27				15/08/2019 13h30
LRV28				15/08/2019 13h30
LRV29			20/08/2019 13h30 X	15/08/2019 13h30 X
LRV30				15/08/2019 13h30
LRV31			20/08/2019 13h30 X	15/08/2019 13h30 X
LRV32	26/08			15/08/2019 13h30 X
LRV33				15/08/2019 13h30 X
LRV34		23/08/2019	15/08/2019 13h30	15/08/2019 13h30

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## HSDR/PACIS functions

Date and version	Failure mode	Impact on WSS	Audio announcement	Display announcement	NVR
rev id TBD + Modem conf file August 23rd	ATO/ATP-M catching	Loss of automatic display or wrong station displayed	No impact	No impact	No impact
		Manually select station on WSS			
	PIS server crash IOS55/E1	No impact	Loss of audio announcement	Loss of display	No more recording in the NVR
			Manual reset of the PIS server	Manual reset of the PIS server	Manual reset of the PIS server
	WSS bug	Grey screen on 1 WSS	No impact	No impact	No impact
		Manually select station on WSS			
	Modem wrong configuration	Loss of automatic display	No impact	No impact	No impact
		Manually select station on WSS			
	Memory allocation in PIS server	No impact	No impact	Stuck on destination message	No impact
				Manual reset of the PIS server	

-  Issue present
-  Issue fixed
-  Workaround possible
-  Target few occurrences  
could remain

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## Other topics

### MPU software :

The engineering version (1.2.5.2) has been implemented on a case by case (LRV1/13, 9/24 and 5/20) not to affect the trial-run.

Plan to implement it on the fleet over the next days (it requires reset of LRV and loss of the position).

**Important note:** Still some CB manually open: this use has to stop (loss of train weight). Message passed to the trouble shooters and should be spread to all stakeholders.

### Traction faults :

As described last week, IOS76 got various root causes with line contactors, thermal protection, cabling/connection and CPU in Agate.

From the 12 events since beginning of the trial run :

- 3 are linked to line contactor
- 3 to "CPU watchdog"
- 4 estimated from thermal protection
- the others are due to cabling

Thermal protection ones don't require driver's intervention, nor a fix/repair as it is a time protection (IOS self resetting after around 20mn).

Traction experts on site.

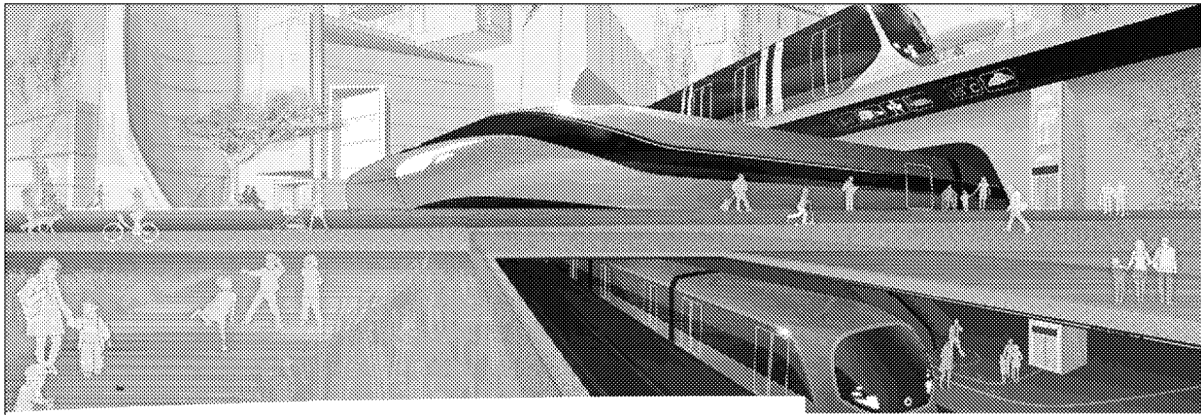
### Passenger's doors:

5 doors isolated since August, 24<sup>th</sup> (software regressed to 1.2) 2 tested without any fault, 3 under investigation

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## Main events analysis

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## Events during Trial Run

## From last week presentation

Open	Asset ID	Work Order	Description	Sub-system impacted	Operational context (from YCC)	Repair
2019-08-03 22:03:00	LRV07	9733	ERO T. Burke reports IOS 052 (Loss of two or more doors on the same side in same unit) in the MC2 cab of LRV07. No doors isolated on LRV 07/27	TCMS	ERO reports IOS 052 (Loss of two or more doors on the same side in same unit) in the MC2 cab of LRV07. No doors isolated.	IOS 52 without doors in fault, take IOS, under investigation. Event difficult to capture as it remains only few random IOS 52.
2019-08-04 13:21:00	LRV17	9771	ERO D. Morgan from LRV 17 reporting intermittent IOS code 052, and it's showing no door at fault on his DDU.	TCMS	ERO from LRV 17 reporting intermittent IOS code 052, and it's showing no door at fault on his DDU.	IOS 52 without doors in fault, take IOS, under investigation. Event difficult to capture as it remains only few random IOS 52.
2019-08-04 15:52:00	LRV28	9780	ERO M. Gratton reporting noise coming from the wheels (high pitch noise).	Others	<p>ERO reporting that in the MC car of LRV28 has a sound of either a hot spot on the wheel or a loose wheel bearing. Not a safety risk.</p> <p>15:32 - ERO reporting that the sound and vibration is very bad, especially on LH turns. ERO believes it is now a safety concern.</p> <p>15:35 - Help Desk notified that LRV28/LRV32 on Run 107 will be brought into MSE. LRV16-LRV20 will be brought out as a replacement with ERO.</p> <p>15:36 - Run 107 fast stop at M07-W and now out of service.</p> <p>15:40 - management notified.</p> <p>15:47 - LRV16-LRV20 left handover platform to replace LRV28-LRV32.</p> <p>15:47 - LRV28-32 left mainline.</p> <p>15:51 - LRV16-LRV20 ready for service in East Connector. Will wait for Run 107 to arrive before departure.</p> <p>16:07 - LRV16-20 entered mainline</p> <p>16:10 - LRV16-LRV20 started service on Run 107 at ST1-E. (Event Closed)</p>	<p>Wheels inspected no fault found.</p> <p>As the issue seems to happen only on particular ML location (H turn) the noise might come from wheel/track interface at this particular turn. To be monitored.</p> <p>2019-08-20 - No new occurrence since 08-04.</p>
2019-08-05 07:53:00	LRV25	9830	ERO reporting compressor faults on both train 25 and 34	Air supply	<p>ERO reporting compressor fault; without an IOS code as FENITE.</p> <p>Alstom states its because its on an angle. Once it launches, the fault will disappear.</p> <p>08:30 hrs, train docked at BIA, still registering the Compressor fault. MLC wants to send it back but Alstom stating that its an end of day fault and can stay out. YCC does not have a spare available.</p> <p>07:34 hrs, Alstom attended train and confirmed train can stay out.</p> <p>07:54 ERO reporting the compressor fault is now on both trains</p> <p>07:58 - AT advised to bring the train in - YCC ensure if they have a replacement train</p> <p>08:07 train removed from mainline</p>	<p>LRVs were in the connector tunnel for too long. LRV removed by error.</p> <p>Note: 1 compressor on 1 train = end of day - IOS012</p> <p>For now IOS012 is not triggered on DDU (maintenance) will be fixed in next DDU release FTA bag of Sept</p>

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## Events during Trial Run

## From last week presentation

Open	Asset ID	Work Order	Description	Sub-system impacted	Operational context (from YCC)	Repair
2019-08-05 11:23:00	LRV02-10	9836	LRV02-10 reporting speed of 10 MPH and immediate stop after departing TUN. IOS codes 07, 09 and 25 registering	Voltage	<p>LRV02-10 reporting speed of 10 MPH and immediate stop after departing TUN. IOS codes 07, 09 and 25 registering</p> <p>-1134 hrs. Help Desk contacted.</p> <p>-1135 hrs. IN7 diversion implemented with 9 trains. Shuttle between TUN-LYO, track 1 with 1 train.</p> <p>-1136 hrs. PA and PDS announcements made at Turney's Station. Bayview 5th and Final 5th and Sup1 Nur has been notified.</p> <p>-1138 Rail Supervisor has been notified.</p> <p>ERD on LRV16/23 at LYO-W not answering radio which led to a delay in the diversion.</p> <p>-1127 hrs. Help Desk advises Alstom en route.</p> <p>-enhanced email sent.</p> <p>-1139 hrs. TOP issued to MLC for TUN-BLA, track 2</p> <p>-1146 hrs. ERD updates that he has brake# 2 in fault, a track brake fault and all 4 brakes at fault.</p> <p>-1154 hrs. Alstom on scene at TUN.</p> <p>-1203 hrs. timetable removed. Constant headway implemented permitted by Sup1. NIB</p> <p>-1201 hrs. Sup K en route from TUN.</p> <p>-1217 hrs. update from K, reporting Alstom still pulling laptop fan. Approx 5-10 mins longer.</p> <p>-1226 hrs. update from K, advises that Alstom has completed their update and permitted to go to TUN, in RM mode.</p> <p>-1234 hrs. Alstom advised LRV can go back in the loop.</p> <p>-1235 hrs. diversion cleared.</p>	Configuration conflict suspected between LRV's modification on 24/9/09 segregation in terminal block.

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## Events during Trial Run

## From last week presentation

Open	Asset ID	Work Order	Description	Sub-system impacted	Operational context (from YCC)	Repair
2019-08-06 06:35:00	LRV-1111-19	9878	Train 11/19 is at Tunney's Past. Immediate stop. High Speed Circuit Breaker, Operator tried to reset the EB and was unable to do so. 1 VOBC Fail. Alstom Tech Champreel has been notified and is troubleshooting @ 0650	TCMS	Immediate stop at TUN.E. Has one VOBC. Reset VOBC and lost communication. 6:38 AM Yard contacted. Alstom Tech trouble shooting with ero on Confed 2. 7:26 AM ERO confirmed that he still has 4 cars and 1 VOBC. 7:35 AM Train regain position on M.	TCMS not communicating, both MPUs down, reset Circuit breakers done by the driver as by Champreel's instruction, train brought back at reduction. Aug. 6th (evening) new MPU Software (1.2.5.2) uploaded successfully under monitoring until of next week before fleet deployment.
2019-08-06 07:59:00	LRV-1128-32	9879	IOS 040 on LRV 32	Medium Voltage	IOS 040 - 1st of 2 broken - 2nd of 2 on train 32, train is being sent back to MSF as per VMOS. Alstom tech Champreel will board the train at HURL. 8:16 - ERO D. DiBerantonio reporting that Alstom Tech has cleared the IOS code and the train can remain.	@MSF: Circuit Breaker on MC2 replaced (Normally Closed contact inside the CB broken).
2019-08-06 08:46:00	LRV-1101-A	00009880	ERO M Diaz on train 01/02 EB'd obstructed motion on track 1 BLA - HSCB open - reset was successful - train attempted movement and HSCB reopened and the train EB'd. ADDED: E. Vigilia- ALSTOM LRV MAINTENANCE SUP was advised at 0847 and he dispatched a warranty tech.	Other	ERO M Diaz on train 01/02 EB'd obstructed motion on track 1 BLA - HSCB open - reset was successful - train attempted movement and HSCB reopened and the train EB'd. Helpdesk notified. Alstom tech Champreel advised ERO not to try and move in case of a third EB. 9:36 - Train is back moving as per Alstom. ERO stating the train moves 5 meters stops and then moves 5 meters again in ATD. Train doing the same thing in RM. 10:05 - Train 01/02 now moving to the MSF with Alstom tech Champreel on board.	Bad connection on a terminal block, suspected.
2019-08-06 10:24:00	LRV-1124	00009883	Train 24/33 EB due to obstructed motion at track 2 in Blair station. Also reported immediate stop on signal box, train is starting and stopping	Traction	Train EB'd due to obstructed motion track 2 BLA-E. ERO had to reset HSCB, which was successful. Train would only move a few feet and then stop and has immediate stop and several brake faults. 11:05 - Champreel wants the train removed from the mainline. 11:07 - replacement LRV28-LRV32 is ready at handover 11. ERO being sent. 11:17 LRV24-LRV33 exiting M.	Bad connection found on LRV24 - wiring issue on a terminal block, fixed.

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## Events during Trial Run

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Asset ID	Work Order	Description	Sub-system inspected	Operational context (from YCC)	Repair
LRV-1126-A	00009891	ERO D. DIPIETRANTONIO reporting IOS 75 while docking at UOT-E on both trains. Operating at max speed of 70 KPH.	Traction	<p>ERO D. DIPIETRANTONIO reporting IOS 76 on LRV26 while docking at UOT-E. Operating at max speed of 70 KPH. Unable to confirm if motor bogie is fault in trailing car. Not registering on LRV26</p> <p>-1405 hrs, Help Desk notified. Help Desk does not have a replacement ready.</p> <p>-1413 hrs, Alstom Charpreet to troubleshoot with LRV on Confed IN2</p> <p>-Alstom advises train is not swelling long enough and motor bogie is overheating. Will stay in service at reduced speed</p> <p>-1419 hrs, ERO reporting no fault registering on LRV13 either.</p> <p>-1422 hrs, ERO updating IOS code is actually 75 on LRV26 and that IOS is on LRV13 as well.</p> <p>-1424 hrs, ERO reporting that CBTC is allowing train to go up to 75 kph.</p> <p>-1426 hrs, Help Desk advised LRV13/26 will be removed. Will have a replacement (LRV14/25) ready in 15-20 mins.</p> <p>-1433 hrs, ERO advises IOS code has changed back to IOS76</p> <p>-1433 hrs, Help Desk advises that they are having troubles moving the train and ETA for replacement is 15-30 mins.</p> <p>-1447 hrs, LRV13/26 emergency braked due to overspeed while in ATPM</p> <p>-1504 hrs, Help Desk advises that there is no longer an ETA on the replacement train. Troy Charter notified.</p> <p>-1509 hrs, LRV13/26 fast service stop was BA-W.</p> <p>-1543 hrs, Help Desk notifies that LRV03/09 ready to go out.</p> <p>-1557 hrs, Help Desk advised that ERO is not at handover.</p>	Thermal protection raised an IOS76 to stop traction effort above 75kph.

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## Events during Trial Run

## From last week presentation

Open	Asset ID	Work Order	Description	Sub-system impacted	Operational context (from YCC)	Repair
2019-08-06 21:35:00	LRV1110-12	9918	ERO S Harrison reports IOS code 074 on LRV10	Traction	<p>ERO S Harrison reporting of IOS code 074 on both trains.</p> <p>21:38 - Help desk advised and BS X, Sidhu advised as well.</p> <p>21:39 ERO advised to switch ends and the train will be routed to the MSE.</p> <p>21:45 Train EB at Tremblay due to Obstructed motion</p> <p>21:49 ERO reporting no propulsion after RM routing clearance was issued.</p> <p>21:50 Diversion DW 05 implemented</p> <p>21:51 PD and PA announcement made at tremblay</p> <p>21:57 Troy notified via phone.</p> <p>22:03 Alstom tech mahawi contacted ML on Radio and will be at tremblay in 10 minutes.</p> <p>22:21 - Alstom tech on location</p> <p>22:30 - No extra ERO was available for replacement train LRV16 - LRV20.</p> <p>22:46 - Alstom techs fixed the issue and confirmed that they reset the PCC's and will investigate further from train logs. ML decides to send the train back to MSE.</p> <p>22:58 - Removed from ML.</p> <p>23:00 - Full line 1 service resumed</p>	Inverter tripping on LRV12 only, root cause under investigation by traction engineers. Seems not to be only due to thermal protection (see other events)

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## Events during Trial Run

## From last week presentation

Open	Asset ID	Work Order	Description	Sub-system impacted	Operational context (from YCC)	Repair
2019-08-07 08:28:00	LRV-1101	9951	ERO F Nicolo reporting IOS 008 in train 01	Air supply	<p>1057 ERO on LRV 1 IOS Code 007, 013 and 0089 and break fault # 1. Repair successful.</p> <p>8:24 AM</p> <p>8:46 - Train was moved back to TUN track 2 to await Alstom</p> <p>10:01 - Alstom tech George called to state that he believes there is a large air leak under the train but he has to move outside the platform to lift up the side skirt. He was advised that the train will have to be removed from Mainline.</p> <p>10:19 - Clearance was given to gain position but issues with the train are preventing it from moving and MRA has created an NCO on track 2 locking up the Turrey's crossover.</p> <p>10:34 - Train moved slightly but stopped fouling switch 305. Alstom tech George called and stated that there is 1 brake that won't release and he will try to release it track level.</p> <p>10:48 - Alstom tech George called and stated that he will instead do a full rescue of train 01.</p> <p>11:10 - 01/33 advised they will be towing the train back - confirmed he was allowed as long as move is done in RM with Alstom on board - will advise when ready to proceed.</p> <p>11:31 - Train has started moving in cut-out toward the MSP and will require multiple clearances to proceed through track 2.</p> <p>11:58 - ERO advising M1 that Alstom has stated not to exceed 16 kph.</p> <p>10:59 ERO reporting on Track 2 an SW302 compressor fault (2) and IOS Code 007, 013 and 008.</p> <p>Track Switch 305 - Manual operation.</p>	Leak confirmed air piping nut loose. Fixed


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## Events during Trial Run

## From last week presentation

Open	Asset ID	Work Order	Description	Sub-system impacted	Operational context (from YCC)	Repair
2019-08-08 14:30:00	LRV-1109	9975	ERO A. SHAWARD reporting that LRV03/09 is registering I0575 while docked at TUN. Will service BLA and then reduce through the east connector.	Traction	<p>ERO A. Shaward reporting of IOS code 075 at tunnels Station. HD Notified and they have aspare train at the P-MD11. Train will removed once the train arrives at Blak.</p> <p>16:24 R.S.K. Siffu notified to have an ERO at the MSF for the spare train at the MSF.</p> <p>16:27 Sup. Belaire inform SCADA controller the chacklin on LRV19/26 shows no functioning TOD and DOU on train 25 and the train is rejected. Help desk was advised and are preparing train 0510.</p> <p>16:40 - Train 19/26 was fixed and will be launched to the ML shortly</p>	Line contactors replaced on both trains LRV03-09.
2019-08-08 08:48:00	LRV-1112	10005	ERO reporting immediate stop and EB	Other	<p>ID 42</p> <p>EROM Sharma reported an immediate stop on his DOU - train stopped just outside HUB track 2 - then the icon disappeared and movement resumed. Happened again at "RE track 2" then train EB'd between switch 317 and 320 due to obstructed motion</p> <p>08:34 LRV1 again - immobilized between switch 317-320</p> <p>LRV02-LRV24 is stuck behind LRV12-LRV4 (track protection in place)</p> <p>09:05 LRV02-LRV24 moved out of the way and joining service</p> <p>09:35 IGA found to Alstom tech George to track the train</p> <p>09:47 TOP in effect for Alstom to get under the train - all train movement is halted</p> <p>09:56 - movement resumed - TOP cancelled</p> <p>10:05 - TOP to remove the train in cut - out</p> <p>10:09 LRV12-LRV14 back in connector - viewed on CCTV - permission to remove the icon as per SUPT N Morris</p> <p>10:10 icon removed from name</p> <p>10:19 MLC took TOP to clear NCO between SW 317-320 on track 2</p> <p>10:21 - NCO cleared</p>	<p>Towed - Connection issue on a current return (found loose)</p> 

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ALSTOM - 2019-08-08 - 08:48

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## Events during Trial Run

## From last week presentation

Open	Asset ID	Work Order	Description	Sub-system impacted	Operational context (from YCC)	Repair
2019-08-09 13:25:00	LRV-1102-24	10013	ERO Nagra reporting that the ceiling is leaking on Track 1 at the West end platform. Yard contacted	Mechanical Brake	<p>10:09 Upon departure from BLA, LRV had Brake set #2 in LRV24 went into fault while crossing switch zone. LRV was fouling switch 332</p> <p>13:36 Brakes isolated, but track brake showing deployed. ERO instructed to use Track Brake Test Button to deploy track brake in attempt to clear fault</p> <p>13:37 Champreel (Alstom tech) requests to speak to ERO on Carfax 2</p> <p>13:39 Track Brake reset using Track Brake Test Button, deploying Track Brake fully then retracting.</p> <p>13:44 ERO attempts to resume service, reports train is in "Stop and Go" condition where LRV will not accelerate in continuous motion.</p> <p>13:44 ERO reports LRV cannot resume.</p> <p>14:05 ERO able to move LRV to BLA station to await Alstom tech, Helpdesk unsure of ETA</p> <p>14:20 Helpdesk advises no replacement train available at this time</p> <p>15:10 Alstom tech (Champreel) called to ask situation with LRV, notifies that he will attend.</p> <p>15:15 Helpdesk advised that replacement train is available.</p> <p>15:20 Alstom Tech Champreel arrives on LRV</p> <p>15:36 Alstom Tech Champreel advises LRV is repaired and suitable for service.</p> <p>15:36 RTM notified that LRV will remain on ML and no replacement needed.</p>	LRV02 Clear LRV24 track brake circuit investigation was done (low movements forced in static), nothing unusual found, traces loaded in train for monitoring, no issue since 09/09.

ALSTOM - 2019-08-09 - 13:25

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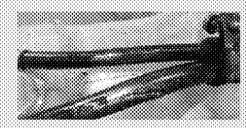
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# Events during Trial Run

From last week presentation

Open	Asset ID	Work Order	Description	Sub-system impacted	Operational context (from YCC)	Repair
2019-08-09 23:06:00	LRV-1109	10101	ERO S Kemp on LRV 03/09 reporting Brake fault on LRV 09 on brake set #1 unable to reset or isolate.	Mechanical Brake	Rail log id: 103	Changed both main pressure hoses (leaking) LMC1

  
Rail log id  
103.docx



**Alstom report**  
Was called about the issue around 11 o'clock, we tried to resolve it over the phone however could not. The driver did not mention at first that the train was unable to move at all so we waited to confirm that an Alstom tech was actually needed on the mainline. Once we had a confirmation, moved to Lees Station. Found that the HPU had no pressure at this point and was unable to release brakes. Around midnight, obtained a TD1 through the ERO to access the tracks and release the brakes manually. Try to get the train to move like this however the train was still seeing a major fault with brakes as being applied due to the lack of pressure. Decision to organise a rescue around 1am. Few more attempts with second technicians on site to release the brakes. Around 2:30, we were able to get the brakes to release this time and were able to drag the train back with LRV03.

ALSTOM - 2019-08-09 - 23:06:00

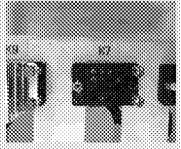
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## Events during Trial Run

## From last week presentation

Open	Asset ID	Work Order	Description	Sub-system impacted	Operational context (from YCC)	Repair
2019-08-11 10:29:00	LRV-1109-A	00010285	Immediate Stop Light illuminated, Propulsion limited to 7kph (Coupled with LRV12)	Mechanical Brake	<p>ERO reporting brake fault on LRV 12 with Immediate Stop Light (Illuminating on Track 2 at UOTT. Brake faults are showing in LRV 12. Propulsion limited to 7 kph.</p> <p>1225 - Alstom tech is on board and ML is directing the train to West Connector</p> <p>1225 - Yard has been notified for the replacement train.</p> <p>1229 - RS J. Mitchell was notified to provide an extra ERO at MSF to take out the replacement train.</p> <p>1252 - OFF the MAINLINE</p> <p>- Alstom tech Max is working to reset the brake fault in the West Connector (under ML TOF).</p> <p>1246 - ERO reported that Train can not be moved anymore. ERO asked permission to do the Hard Reset in the West Connector with Alstom Tech.</p> <p>1258 - Vehicle inspection sheet submitted to ML and ERO on board on LRV 25/34.</p> <p>1301 - ERO reported Hard Reset was unsuccessful.</p> <p>1312 - Yard Control notified ML that they are sending second Alstom tech (Bunior) to help out with the brake fault.</p> <p>1316 - Train 25/34 replacement train launched from East Connector to St. Laurent Stn on Track 2 on RUN # 104.</p> <p>1123 hrs, Alstom IRANK requested access to MLC TOF to assist in troubleshooting LRV25/34</p> <p>1158 hrs, ERO advises LRV is at handover 12.</p> <p>ERO at TUN-W lost 1 VOB.</p> <p>7:42 AM Alstom Tech trouble shooting on Corfedf Line 2. Spare train awaiting at the Handover platform 11 F needed</p> <p>07:51 Train is operational, regain status.</p> <p>According to Alstom Tech Christophe - Troy requesting to bring the LRV 09/24 in the yard and replace it with LRV 25/34.</p> <p>0806 - ML contacted the Yard Control to provide a replacement train for LRV 09/24.</p> <p>0814 - LRV09/24 roused from Jamney's Six Track 1 to go back to the MSF West Connector.</p> <p>0821 - LRV 25/34 replacement train for LRV 09/24 is in the East Connector waiting to join the loop on the ML.</p> <p>0833 - LRV 09/24 off the ML.</p>	<p>Pulse enable signal was missing due to pin pushed on relay K7 on PCB4 see picture attached.</p>  <p>TCMS error was troubleshooted by Alstom tech, over the radio within few minutes via MPU reset (circuit breaker). As soon as MPU comes back, TOD showed 2VOBC and 8 cars, confirmed over radio. Alstom tech told controllers that LRV9/24 is good for continuing the loop and bring it back at time of reduction.</p> <p>Corrective action - New MPU software 1.2.5.2 will be uploaded by 09/13.</p>
2019-08-12 07:38:00	LRV-1109-24	No Worker for ERO at TUN-W lost 1 VOB		TCMS	<p>ERO at TUN-W lost 1 VOB.</p> <p>7:42 AM Alstom Tech trouble shooting on Corfedf Line 2. Spare train awaiting at the Handover platform 11 F needed</p> <p>07:51 Train is operational, regain status.</p> <p>According to Alstom Tech Christophe - Troy requesting to bring the LRV 09/24 in the yard and replace it with LRV 25/34.</p> <p>0806 - ML contacted the Yard Control to provide a replacement train for LRV 09/24.</p> <p>0814 - LRV09/24 roused from Jamney's Six Track 1 to go back to the MSF West Connector.</p> <p>0821 - LRV 25/34 replacement train for LRV 09/24 is in the East Connector waiting to join the loop on the ML.</p> <p>0833 - LRV 09/24 off the ML.</p>	<p>TCMS error was troubleshooted by Alstom tech, over the radio within few minutes via MPU reset (circuit breaker). As soon as MPU comes back, TOD showed 2VOBC and 8 cars, confirmed over radio. Alstom tech told controllers that LRV9/24 is good for continuing the loop and bring it back at time of reduction.</p> <p>Corrective action - New MPU software 1.2.5.2 will be uploaded by 09/13.</p>



## Events during Trial Run

## From last week presentation

Open	Asset ID	Work Order	Description	Sub-system impacted	Operational context (from YCC)	Repair
2019-08-12 19:27:00	LRV03	10523	ERO K. DHAWIWAJ reporting IOS75 in LRV03 and an Immediate Stop Symbol at TUN-W. Alstom Tech Mex on scene	Traction	ERO reporting on both trunks IOS code 075. Alstom tech was advised will be boarding the train at Tunney to investigate.	Thermal protection raised on at least 2 traction units, IOS75 to stop traction effort above 70kph.
2019-08-13 06:30:00	LRV32	10600	Cab door cracked. Left CCTV screen in MC1 non functional and IOS 40, loss of one battery.	Voltage	ERO on LRV28 MC1 the cab door cracked, on LRV 32 MC1 cab door is cracked on LRV32 MC1 the CCTV not working on left side, on LRV32 IOS Code 040. 06:29 Yard contacted and train returning to MST end of line. And they have a spare LRV28-LRV32	@MST - Circuit Breaker on MC1 replaced (Normally Closed contact inside the CB broken).
2019-08-13 10:40:00	LRV33	10643	LRV 33 keeps EBling due to 'Uncommanded motion' and 'Mode disallowed' and could only be moved in cutout.	Others/MNB	<p>ERO reporting that the train EB'd track 1 east of Bayview. ATS shows due to obstructed motion. Train EB'd two more times and ERO states that he is showing 'alignment failure and uncommanded motion'.</p> <p>8:58 - Help desk advised.</p> <p>9:32 - Alstom is on the way to the train.</p> <p>9:41 - Alstom called to advise they are a few minutes away.</p> <p>9:56 - Alstom tech arrived at the train.</p> <p>10:02 - Alstom tech requesting to reset the train.</p> <p>10:16 - Train attempting to move to Tunney's in ATO with Alstom techs on board. Train EB'd again.</p> <p>10:19 - Train attempting to move in RM, unable to Alstom requesting the train to be driven in Cut-out to Tunney's.</p> <p>10:32 - Train arrived at Tunney's in cut-out mode.</p> <p>11:36 - Train parked at TUN-W until further notice. Keeps EB when trying to move in ATO / ATPM / RM. Decision made in conjunction with Supr. to leave train there for time being and resume full service.</p> <p>12:12 ERO advised that they (Alstom) reset the train and it appears to be fine but will retest at 2 am tonight.</p>	Complete investigation on wiring and network done, several occurrences of non-quality found, under monitoring.

ALSTOM - 2019-08-13 10:40:00

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## Events during Trial Run

## From last week presentation

Open	Asset ID	Work Order	Description	Sub-system impacted	Operational context (from TCC)	Repair
2019-08-16 19:43:00	LRV01-12	11046	01/12, ERO is reporting an immediate stop icon in the MC1 cab of LRV01. TOD shows only 4 cars and 1 VOBC and DDU does not show the trailing LRV12. LRV then suffered multiple Ebs	TCMS	<p>ERO is reporting an immediate stop icon in the MC1 cab of LRV01. TOD shows only 4 cars and 1 VOBC and DDU does not show the trailing LRV12</p> <p>MCA15 shows 8 cars, 2 VOBC</p> <p>Attempts to move result in obstructed motion fault with EB activation</p> <p>Supervisor notified, platform closed.</p> <p>19:30 RIM notified, Alstom staff attend</p> <p>19:39 Alstom tech called ERO on Confid 2</p> <p>19:47 Alstom tech arrive</p> <p>20:27 Alstom tech requests full shutdown and reset of LRV</p> <p>20:51 - M-08-071 in effect to regain position of LRV</p> <p>21:05 - Removed from mainline. To be replaced by LRV39-LRV29</p>	Reset done on the train, TCMS logs were taken and sent to engineering for further investigation.
2019-08-17 8:11:00	LRV01-12	11152	VOBC not available for LRV12 coupled with LRV01	TCMS	<p>ERO reporting - Communication lost with TCMS with1. Lost VOBC</p> <p>0802 - Yard and Supt has been notified for spare train and spare ERO.</p> <p>0802 - PDS and PA announcements are done for Station Closure at Turney + Six track 2 platforms.</p> <p>0802 - Alstom Tech was notified on Confid 1 to attend (Tech is at Turney's Stn)</p> <p>0821 - LRV 01/12 moved back to MSF via West Connector.</p> <p>0821 - LRV 04/13 is on standby in East Connector (waiting to join the loop).</p> <p>0823 - Replacement LRV 04/13 launched on the Mainline.</p> <p>0835 - Off Mainline and ERO will be in MSF as an Extra. Supt on duty is aware.</p>	TCMS crashed on LRV1 logs were taken for TCMS and sent to engineering for further investigation
2019-08-17 10:01:00	LRV03-34	11155	ERO reported compressor fault on LRV34	Air supply	<p>ERO reporting a compressor fault on LRV34, no IC5 code present.</p> <p>Alstom Tech at BIA to attend needs the train stationary for 10-15 minutes</p> <p>10:03 Yard control and Supt advised spare train required to launch.</p> <p>10:15 LRV23-LRV22 left handover towards mainline.</p> <p>10:17 LRV03-LRV34 arrived at BIA s/n</p> <p>10:19 Alstom requires a full reset on LRV03-LRV34</p> <p>10:23 LRV23-LRV22 launched to start service at TRE Stn west run 104 on schedule</p> <p>10:32 compressor fault cleared train needs to regain position</p> <p>10:34 Clearance issued</p> <p>10:40 position regained, clearance canceled</p> <p>10:46 LRV03-LRV34 reduced off the mainline</p>	LRVs were in the connector tunnel for too long. Note: 1 compressor on 1 train = end of day-IC5012 For now IC5012 is not triggered on DDU will be fixed in next DDU release ETA end of Sept

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## Events during Trial Run

9/20/2019 07:55:00	LRV30	11438	Intermittent code I05I052 LRV mobile	TOKMS	ERD on LRV30 MC2 I05 Code 052 but no doors in fault on the DDU	I05 I52 without doors in fault. Fake I05 under investigation. Event is difficult to capture as it remains only few random I05 I52.
9/20/2019 13:23:45			ERD reporting MC1 cab of LRV10 losing HVAC when he keys out and the cab is getting too hot - Alstom to see the train at TUN	Others	ERD reporting MC1 cab of LRV10 losing HVAC when he keys out and the cab is getting too hot - Alstom to see the train at TUN 10:18 ERD advised HVAC is now completely off in the train. Helpdesk contacted. 10:19 Alstom advised train should be removed from service due to HVAC 10:12 Helpdesk contacted to have the spare train ready - ERS M Oulley contacted to have an ERD staff replacement train	CVS issue CAN issue. CVS was reset and fault was cleared. Under observation.
9/20/2019 21:12:00	LRV10 LRV16-26	11445	NA		LRV1625 emergency braked due to mode changed while the train is moving at SW 304 on track 1. 2110 hrs. EB reset. 2113 hrs. Help Desk contacted. 2116 hrs. Alstom Tech Munir advised to troubleshoot on Confed L12. 2116 hrs. L12 Diversion implemented with shuttle between TUN/LYD, track 2. 2117 hrs. PA and PDS announcements made. 2121 hrs. Rail Scoop K. BAKSHI contacted to attend. 2130 Vehicle was cleared by Alstom tech.	CB tripped. Under investigation.
		NA		Others		

ALSTOM - 2019-09-20 - 13:45

ALSTOM 2019-09-20 13:45:00: www.alstom.com/usa/eng - 10/10/2019 13:45:00: www.alstom.com/usa/eng - 10/10/2019 13:45:00: www.alstom.com/usa/eng

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