Work Instruction - Operations	HITACHI
TRAIN DATA RADIO FAILURE	⊚ Hitachi Rail Honolulu JV

Work Description: This work instruction describes the steps to handle train data radio failure
Scope: This work instruction is written specifically for OCC operating staff of Honolulu Rail Transit.

References:
- HNL-09510 Minimum Operating Conditions Work Instruction
- HNL-09527 Fault Reporting Process

PPE and precautions	Competencies or qualifications	Licenses or permits required
Nil	Train Controller, Engineering & Fault Controller, Information Controller, Train & Stations Manager, OCC Supervisor, Train Operator	Nil
Tools and equipment required		
Nil		

Complete Data Radio Failure on a Train	

👉	***Note***
	*Each E-Car has a Transportation Mobile Unit (TMU) connected to the on-board communication system network. This on-board dual architecture TMUs (one from each E-Car) within a train provides a redundant radio system such that a single TMU failure will not affect the data radio communication. Data radio failures are detected and notified at OCC by ATS and Communications workstations. In case of a complete failure (i.e. both TMUs fail), the following functionalities will not be available **on the train**:*
	  • *On Board PA/PIS*
	  • *On Board ECP (T-Tel)*
	  • *On Board CCTV streaming to OCC*
	  • *ATC Radio commands*
	In this circumstance, the train shall be manned by a Train Operator until such time the train is removed from service (see HNL-09510 Minimum Operating Conditions Work Instruction).

Train Controller	You must:
	• Tell all OCC operating staff of the data radio communication failure on the train
	• If there is no Train Operator on board, dispatch a Train Operator to get on the train at the specific station
	• Tell the Train Operator to stay on board and be responsible to aid passengers in the absence of onboard PA/PIS, T-Tel, CCTV, until the train is taken out of service
	• On instructions from the OCC Supervisor:
	    o Arrange a replacement train with the Yard Controller
	    o Confirm the train is empty before taking the train off service and to the Yard
	• Log the event in the Train Controller Log

OCC Supervisor	You must: • Decide the best strategy to continue the degraded service or replace the faulty train in accordance with HNL-09510 Minimum Operating Conditions Work Instruction • Log the event in the OCC Supervisor Daily Report
Information Controller	You must: • Wait until the Train Operator is on board the train then tell the Train Operator (via voice radio) to make local announcements as required – communicate with the Train Operator via voice radio • With the assistance from the Train Operator, check and confirm CCTV, PA/PIS, ECP/T-TEL on the affected train are inoperable • Log the event in the Information Controller Log

Approved By:	☐ Director, Operations and Maintenance	☐ Department Manager	☐ Manager, HSE (Operations and Maintenance)
Signature:			
Date:			

Train Operator	You must: • On instructions from the Train Controller, get on board the specified train from the specified station (if not already on board the train) • Aid passengers in the absence of onboard PA/PIS, CCTV, T-TEL • Provide feedback to Information Controller on the functionality tests of the onboard PA/PIS, T-TEL, CCTV • If the train data radio failure is confirmed, in coordination with OCC disembark all passengers at the designated station • Monitor conditions on board the train and inform the Train Controller of any anomaly • On instructions from the Train Controller, accompany the train to the Yard or exit the train at the specified station
Engineering & Fault Controller	• Record the fault in the MMIS according to HNL-09527 Fault Reporting Process and coordinate with the maintenance team for maintenance intervention • Monitor the fault rectifying progress and keep the OCC Supervisor and Information Controller informed

Data Radio Failure on (a part of) the Wayside	
☞	**Note** When a Data Radio Failure occurs in a section of the wayside, the following functionalities will not be available **for all the trains moving in that section**: • On Board PA/PIS • On Board ECP • On Board CCTV streaming to OCC • ATC Radio commands Data Radio Failures are detected and notified at OCC by ATS and Communications workstations.
Train Controller	You must: • Tell all OCC operating staff of the data radio communication failure on the section of the wayside train • Make certain that trains moving through the affected section are manned by Train Operators – so for trains with no Train Operator on board, dispatch a Train Operator to get on that train accordingly at the specific station • Tell the Train Operators to stay on board in the affected section and be responsible to aid passengers in the absence of onboard PA/PIS, T-Tel, CCTV, at that specific section until otherwise being notified • Log the event in the Train Controller Log
OCC Supervisor	You must: • Decide the best strategy to continue the degraded service in accordance with HNL-09510 Minimum Operating Conditions Work Instruction • Log the event in the OCC Supervisor Daily Report
Information Controller	You must: • Coordinate with the Train Operators (via voice radio) to make local announcements as required – communicate with the Train Operator via voice radio • Log the event in the Information Controller Log
Train Operator	You must: • On instructions from the Train Controller, get on board the specified train from the specified station (if not already on board the train) • Aid passengers in the absence of onboard PA/PIS, CCTV, T-TEL when trains moving through the affected section • Monitor conditions on board the train and inform the Train Controller of any anomaly
Engineering & Fault Controller	• Record the fault in the MMIS according to HNL-09527 Fault Reporting Process and coordinate with the maintenance team for maintenance intervention • Monitor the fault rectifying progress and keep the OCC Supervisor and Information Controller informed

Data Radio Failure on the entire Mainline (System-wide)

☞	**Note** When a Data Radio Failure occurs along the wayside, the following functionalities will not be available **for all the trains within the Mainline**: • On Board PA/PIS • On Board ECP • On Board CCTV streaming to OCC • ATC Radio commands Data Radio Failures are detected and notified at OCC by ATS and Communications workstations. In such a circumstance train service can only be maintained via Train Operators manning all the trains
Train Controller	You must: • Tell all OCC operating staff of the data radio communication failure on the entire mainline • Make certain each train on the mainline is manned by a Train Operator – so for trains with no Train Operator on board, dispatch a Train Operator to get on that train accordingly at the specific station • Tell the Train Operators to stay on board and be responsible to aid passengers in the absence of onboard PA/PIS, T-Tel, CCTV, at that specific section until otherwise being notified • Log the event in the Train Controller Log
OCC Supervisor	You must: • Decide the best strategy to continue the degraded service in accordance with HNL-09510 Minimum Operating Conditions Work Instruction • Log the event in the OCC Supervisor Daily Report
Information Controller	You must: • Coordinate with the Train Operators (via voice radio) to make local announcements as required – communicate with the Train Operator via voice radio • Log the event in the Information Controller Log
Train Operator	You must: • On instructions from the Train Controller, get on board the specified train from the specified station (if not already on board the train) • Aid passengers in the absence of onboard PA/PIS, CCTV, T-TEL until otherwise being notified • Monitor conditions on board the train and inform the Train Controller of any anomaly
Engineering & Fault Controller	• Record the fault in the MMIS according to HNL-09527 Fault Reporting Process and coordinate with the maintenance team for maintenance intervention • Monitor the fault rectifying progress and keep the OCC Supervisor and Information Controller informed