1. **Introduction**

As the largest trade union on London Underground, and the only union representing all grades on London Underground, RMT deeply regrets that no action has been taken following the GLA investigation into the state of the Tube.

In particular, RMT is deeply concerned that following the Union’s active engagement in the investigation, and the subsequent good faith with which we engaged the Olympics, that it now appears that our members are faced with an unprecedented assault.

The Operations and Maintenance Concept is, according to the LUL document, “a conceptual description of the future of the operations and maintenance of the London Underground Deep Tube Lines”. These lines are the Bakerloo Line, Central Line, Victoria Line, Jubilee Line, Northern Line, Piccadilly Line, and Waterloo & City Line.

Despite the development of the Operations and Maintenance Concept Development Process being “consultative”, the RMT has never been consulted and was only made aware of the process through a leaked document.

RMT notes that the Mayor has taken no action to improve industrial relations and has begun a process, without even consulting the Union, which could potentially bring industrial relations to breaking point across the entire combine.

2. **Executive Summary**

RMT is opposed to the introduction of driverless trains and our opposition to such proposals is well documented. We believe that the intention to trial unattended trains from October on the Jubilee Line is unsafe, and poses a danger to the travelling public and staff. We also believe that the proposed introduction of such a system is being undertaken hastily and for political reasons, and directly following the Union’s active participation in delivering the Olympics can be viewed as an open provocation.

RMT believes that whilst driverless trains form a substantial part of the proposals which were leaked to RMT, the Operations Maintenance Concept actually go much further than just the operation of trains.

RMT is concerned that the rhetoric over driverless trains may distract from proposals which include substantial changes to the overall operation of the Tube including:

- the maintenance of the Tube, including a reduction of or removal of manual track patrolling
- an overhaul of train operations and train characteristics
- the introduction of a computerised/automated system for the day to day operation and maintenance of the tube
• an overhaul of the communications system, with an emphasis on the reduction of staff numbers
• major changes in the management of stations, and levels of staff attendance on stations
• major changes in track and track side equipment characteristics
• major changes to maintenance depot characteristics, stabling road characteristics, and power distribution system characteristics
• major changes to the composition of the workforce
• 24 hour unattended operation

3. **Maintenance of the Tube and trains, including a reduction of or removal of manual track patrolling**

The documents seen by RMT claim that trains will be capable of performing their own health checks, and do not require fleet maintenance staff to perform checks and also that the trains are fitted with track monitoring equipment which the union fears will be used to replace manual track patrolling or reducing the frequency of such patrols.

RMT maintains that the introduction of on-train track monitoring equipment should only be used to compliment the work of manual track patrolling, and has evidence of instances in Europe (eg. the Netherlands) where companies have hoarded information collected by on-train equipment as a means of delaying/avoiding infrastructure works.

RMT does not object to the introduction of new technology where the intent is to increase the standard of safety but believes that such an introduction will not be used to compliment manual track patrolling but rather will be used to cut costs, potentially at the expense of safety standards.

4. **An overhaul of train operations and train characteristics**

RMT is strongly opposed to the introduction of driverless trains, and considers them to be an unsafe way to operate a railway.

RMT believes there are clear safety reasons why trains need to be staffed by a driver including the fact that drivers can observe the track ahead and try to avert any catastrophe such as by looking out for potential suicides and accidents, broken rails and wrong signals. Trains with drivers are also vital to ensure a safe platform and train interface.

One recent example of the necessity of having a driver present happened in February 2012, in which a five-year-old boy escaped unharmed after falling between a Tube train and a platform. The child was only discovered during the final visual safety check when driver spotted a small hand reaching up from under the train in Finchley Road Station. It should be noted that none of the automatic devices detected the child, and tragedy was only averted through the vigilance of the driver.

RMT notes the dangers of driverless trains was demonstrated by the decision of the Washington metro to switch to manual operation in the wake of a horrific rush hour crash in June 2009, which killed nine people. The collision was caused by a failure of the automated system and the Washington Post called it the “price of parsimony” after numerous near misses went unheeded.

In terms of the LUL documents seen by RMT, 3 types of train operation are outlined:
• UNATTENDED “The train is capable of operating entirely under the control of Railway Control System (RCS) without manual intervention”.
• REMOTE: “The Train is capable of being driven by a remote operator” – “In this mode the Train is operated with manual intervention. The intervention is made by an Operator who does not need physical contact with or presence onboard the Train Set. The intervention is made via an interface that is either in a fixed location or which is in the possession of an authorised and competent mobile operator”.
• DIRECT: “The Train is capable of being driven manually by an attending Operator” – “In this mode the Train is operated by an authorised and competent attendant using the physical controls that are available on board the Train Set”.

However, it is clear from the train characteristics outlined (below) and references throughout the document, that London Undergrounds agenda is for UNATTENDED operation.

Proposed Train Characteristics:

- No cab on the train
- The train is equipped with intruder protection.
- No member of staff is needed in attendance when train changes from standby to operational mode.
- The train is capable of bi-directional operation.
- The Train Set can couple remotely.
- The Train Set can push another Train Set to which is has coupled.
- Multiple Train Sets can be coupled to form a single unit.
- The Trains must have an onboard power supply to move into a station or siding where this cannot be achieved with normal Traction Current.
- The Trains must have detection equipment at both ends to detect obstacles that block or may impede the movement of the Train.
- If the Train loses contact with RCS it will “creep” forward to the next station provided no obstacles are detected.
- The Train must be capable of auto coupling and is equipped with the means by which passengers can move safely between trains when detrainment is required.
- Detraining must be possible between two coupled Train Sets.
- Each Train Set must be capable of weighing its load so passenger information can be fed to RCS.
- The train must allow for visual and audio information to be broadcast to all passengers.
- The train must have a Help facility that can answer general passenger queries.

Almost every characteristic listed for the new trains is designed to reduce the number of staff, and subsequently place the travelling public in a less safe, more vulnerable environment.

RMT believes that every train must have a driver to ensure the safe and effective running of the Underground.

5. **The introduction of a computerised/ automated system for the day to day operation and maintenance of the tube**
The leaked documents plan for the introduction of a Railway Control System (RCS) designed to place as much of both the operation and the management of the Deep Tube Railway in the control of an automated computer programme.

Some examples of the work which will be carried out by RCS include:

- Receives and stores the detail of the Deep Tube Service that is to be delivered at any time.
- Can automatically adjust the Service Plan to meet demand for service at any given time.
- Allows the DTR Service Plan to be amended by authorised personnel within the RCO (Railway Control Organisation).
- Whenever railway is available the RCS can interpret the Service Plan and deliver the DTR Passenger Service without intervention from RCO personnel.
- Controls all train movements on the Passenger Railway and in all Depots and Stabling Locations.
- Protects all train moving on, into and out of Depot Maintenance Roads.
- Is capable of executing bi-directional train movements.
- Is capable of detecting and controlling the movement of engineering vehicles and Alien Trains on the DTR.
- Notifies an Event Controller of any DTR train or sub system fault or sub standard condition is detected by the automated onboard health check.
- Maintains a full history of asset condition and maintenance date for DT assets and maintains a profile of constraints on the availability of Train Sets.
- When a Train Set needs to be removed from service the RCS is capable of executing this.
- Generate an alarm when any monitored railway asset is determined to be worthy of notification.
- Maintains record of usage, performance and maintenance for each monitored railway asset.
- Maintains a profile of the current and planned non availability of railway assets.
- Continually monitors and reports the performance of DT service delivery, and predicts where current events are likely to cause perturbation and or a fall in performance over time. The RCS then identifies the most effective recovery strategy and presents it to an Event Controller who will either confirm or reject it. If confirmed the RCS will automatically implement the strategy.
- Continually generates a forward model of the use and performance of selected assets.
- Captures and analyses passenger activity - this includes identifying irregular movement and high occupancy from CCTV and “intelligent systems”.
- Raises an alarm when it construes specific behaviours by customers present in stations or trains. It also captures and analyses human presence in selected non passenger locations.
- Monitors overcrowding and alerts the RCO. Platform information informs customers when arriving trains are crowded.
- Monitors current and potential loading densities in stations. Where loadings are unacceptable the RCS will inform the RCO.
- When appropriate the RCS can broadcast customer information to passengers on trains, in stations and at selected additional locations.
- Continually generates routine customer information. When the RCS detects an event for which non routine customer information is required it automatically generates and delivers appropriate information.
• Supports the discharge of Current from Traction Power Stations and provides positive verification of the status of Traction Power across the Deep Tube Network, and supports the controlled introduction of Traction Current.
• Supports the tripping of traction current by the RCO and by competent personnel in other areas.
• An auditable log is maintained of all operational events, alarms and human interventions that are processed by the RCS.
• Maintains a schedule of all planned maintenance.
• Automatically schedules the maintenance of assets at the appropriate time or when their condition or usage dictates the need.
• Prioritises maintenance activity where there is conflict and supports intervention to amend maintenance activity that is scheduled by the system.
• Can be instructed to prevent trains from incorrectly entering a section in which traction power is switched off.
• Continually maintains a record of the location of all Event Controllers.

RCS will run the Tube until such a time as “when the system detects an event that requires human intervention then an alarm is generated and directed to an Event Controller”.

RMT would like to draw Assembly Members attention to the strong record of railway workers detecting the events which would then require immediate human intervention.

RMT believes that the use of such a system places the safety of the travelling public at the mercy of a computer system, and does not account for the years of experience, including in dealing with emergencies, of London Underground staff.

6. **An overhaul of the communications system, with an emphasis on the reduction of staff numbers**

The proposals claim that the RCS will also be capable of prioritising communications activity across the system to ensure that no critical message or information is delayed due to high levels of communications traffic. The communications system will ensure that all devices which comprise the RCS will be continually monitored, controlled and administered by the RCS.

RMT believes that regardless of how robust any such system is, the wide variety of, and interplay between, critical incidents requires monitoring by trained and experienced staff at all times.

7. **Major changes in the management of stations, and levels of staff attendance on stations**

Stations are to be equipped with travel pass vending equipment, presumably at the expense of ticket office opening hours.

Stations are also to be equipped with help points that provide customers with additional opportunities to make enquiries about fares, the acquisition of travel passes and more general questions about using the Underground system. Inside the gate line, stations are equipped with help points that provide customers with additional opportunities to make enquiries about services and to pose more general questions about the use of the Underground system. Passenger Emergency Alarms allow customers to report events or
conditions that are a cause for concern. RMT believes that this would not adequately replace trained and experienced station staff.

In terms of station security, the proposals are for remote monitoring, as opposed to staff presence and include:

- Stations are comprehensively monitored by CCTV surveillance equipment.
- All external station doors are alarmed and can be secured.
- All office and equipment room doors are alarmed and can be secured.
- CCTV images of all secured doors can be viewed by the RCO.
- Secured areas within a station are fitted with intruder detection equipment.
- The public areas within a station are fitted with intruder detection equipment that can be activated to provide notification of inappropriate intrusion or any intrusion.

Station Platforms must allow visual and audible information to be provided to customers. RMT maintains that a station staff presence is still necessary for information to be conveyed effectively to the travelling public and that this is especially true in times of emergency.

Further measures to allow for remote controlling are also proposed. Station escalators and station lifts can be operated using the controls that are integral to the equipment or remotely through the automated computer system. Additionally, station lighting can be remotely controlled.

8. **Major changes in track and track side equipment characteristics**

As with other changes outlined above, RMT believes that the proposed changes to track and track side equipment are being done not to increase reliability or safety but rather to decrease staff numbers.

The removal of the Tunnel Telephone System and its replacement with the new communications system (which will be highly automated) is one example. Additionally, whilst new technology to assist staff in detecting intrusions or obstacles is welcome any such introduction should complement the work of staff.

RMT believes that the following leaked proposals are not intended to complement the work of staff, and subsequently safety, but rather to introduce cuts:

- Surveillance equipment detects obstacles on the track and at station platforms that are located on open track sections.
- Surveillance equipment detects any obstacles between stations within a tunnel section.
• Surveillance equipment detects any intrusion or obstacles on the track at platforms that are in tunnel sections.

• A broad range of track side equipment is self monitoring. Where this is the case the asset communicates its status to the RCS. The information provided varies between assets but generally includes an indication of status and can provide:- usage, performance and condition.

9. Major changes to maintenance depot characteristics and stabling road characteristics

Similarly to the other proposals, plans for maintenance depots and stabling roads also appear to be designed to reduce staff numbers at the expense of safety.

Train movements in maintenance depots are to be controlled by the automated computer system as opposed to experienced and qualified staff. The same is true of stabling roads.

Stabling roads are to be “secure” and monitored by CCTV and intruder detection equipment, as opposed to being protected by a strong staff presence.

10. Major changes to the composition of the workforce

RMT have major concerns not only about the planned changes to the infrastructure and operations of the Deep Line Railway but also to the wholesale restructuring of staffing on the London Underground with the introduction of a small number of new grades to replace a much wider and more varied skill set. These changes can be found in the proposal for a Railway Control Organisation, which would be comprised of 4 grades and work with the automated Railway Control System. The document in RMT’s possession clearly states that “when the system detects an event that requires human intervention then an alarm is generated and directed to an Event Controller”. RMT believes that the quantity of events requiring human intervention, and the potential quantity of events in the case of an emergency, require a fully staffed/attended system and that anything less would be a direct cut in safety standards.

RMT believes that such proposals are not being made in order to achieve a more efficient network, but rather are an attempt to drive through cuts. The effect of these cuts will be to greatly reduce service quality and will come at the cost of reduced safety and security for both the travelling public and the workforce.

11. 24 hour unattended operation

RMT has no objection to the tube operating on a 24 hours a day basis. However, we have serious concerns as to the plan for these services to be unattended and we maintain that the statistics demonstrate the requirement for a staff presence at all times and especially at night in order for the travelling public to have confidence that personal security is being provided for when using the London Underground.

12. The importance of a properly staffed railway
RMT’s demand for a properly staffed railway is well document and evidence based. A lack of security for the travelling public can also significantly impact on the accessibility of the railway. There are direct associations between staffing levels, safety and personal security.

- Anthony Smith, Chief Executive of Passenger Focus has stated that “all our research indicates passengers really like the re-assurance only the presence of staff can bring. Taking staff away from stations would represent a very short-term, short-sighted saving.”

- Passenger Focus’s National Passenger Survey shows that “personal security” and “availability of staff” are two of the worst three areas of passenger satisfaction at stations. Personal security scored more highly on trains but less than half of all rail passengers were satisfied with the availability of a guard on their train.

- An Independent Social Research report from April 2009 ‘Passengers’ Perceptions of Personal Security on Public Transport’ stated that: “the presence of uniformed staff provided a sense of order and authority, and gave passengers confidence that anti-social behaviour would be challenged. Women and older people in particular were reassured by staffing initiatives, and often commented that seeing staff on trains, stations and at bus stations made them feel safer.”

In respect to specific security issues facing young passengers, the report found that: “reactions to staffing initiatives – especially among older teenagers – were different for young men and young women. Most of the young women we interviewed were reassured by seeing uniformed staff on trains and stations, especially if they were travelling at night. This was the case for the staffing initiatives included on Merseyrail, Southeastern, and the Colchester to Clacton line. As with adult passengers, they liked to see an authority figure who would keep order and challenge anti-social behaviour.”

- In her 2005 research report ‘Women and Transport’, Kerry Hamilton of the University of East London found that: “women feel more vulnerable to attack and harassment than men and their greater concern with personal security ... This deep concern about personal security has important implications for the design of transport interchanges and waiting areas and for staffing levels.”

The report concluded that reduced staffing levels had direct impact on the perception of women’s personal security: “the removal of conductors, as a result of One Person Operation on buses and trains, which was introduced in the 1980s and was generally commonplace by the 1990s, resulted in reduced personal security for passengers, especially women ... Therefore the quality and level of staffing on vehicles and at bus and rail stations is of vital importance.”

- In their response to the consultation on the Rail Value for Money Study, the RMT quoted research from a report by trade unions and passenger groups in relation to proposed ticket office closures on South West Trains which found that: “only 55% of passengers were satisfied with the current availability of staff at South West Trains stations. Only 62% of passengers say they are satisfied with their personal security while using South West Trains stations. Evidence suggests that staff presence is key to making passengers feel safer when taking the train.”
• The ‘Women and Transport’ report published by the Scottish Executive in 2000 found that: “many transport interchanges are seen to be unsafe by women, and more isolated bus stops and unstaffed railway stations are often avoided after dark.”

• Personal safety was the issue that solicited the largest number of responses to the Scottish Executive study. The report found that: “the change which was identified most frequently related to the provision of increased staffing at stations and on public transport vehicles (as well as in car parks and cycle paths) in relation to women’s personal safety needs (57% of these respondents). Although a small number argued that an increased police presence would be beneficial, many more identified the need for an increase in public transport staff.”

• In her report commissioned by the Labour Party Everywoman safe everywhere, Vera Baird QC states that “a significant number of respondents to the consultation raised concerns about cuts to travel budgets and services and the corresponding impact on that could have on women’s perceptions of safety.” Removal of station and train staff and closures of ticket offices were chief among these concerns.

13. Conclusion

Essentially the proposals are designed to implement cuts to staff on the London Underground.

As the leaked documents in RMT’s possession state, the aim is to introduce “more efficient working practices, using automation where appropriate”, “gives rise to increased flexibility with staff deployment”, and “minimising the number of labour intensive tasks”.

Additionally, the document calls for “full automation of service delivery”.

RMT believes that the proposals, and the secretive manner in which they have been concocted, will be negative for industrial relations on the London Underground.

On 27 September 2012, RMT confirmed that we will ballot for strike action and action short of a strike on London Underground over plans to begin the testing of driverless trains.

Initially, RMT will be balloting all members who are test train drivers but the union has also made it clear that it will be looking at which other grades may be called upon to test-drive units with a view to balloting those staff as well.