



Ticketing & Revenue Update

Issue 135
November & December 2021

TRU NEWS – THE LATEST FROM THE WORLD OF T&R

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NOT THE JANUARY FARES REVISION (Part II)

We delayed publication of what was originally intended to be our November edition of the T&R Update, whilst we were awaiting clarification of whether the annual fares revision would go ahead on Sunday 02 January 2022 or whether it would need to take place at a later date.

Unfortunately discussions around the on-going funding of TfL which are taking place between the London Mayor, TfL and the Department for Transport (DfT) have yet to be fully concluded and a vital element of these discussions affects what fares on LU and other TfL modes will be in 2022.



MAYOR OF LONDON

Department
for Transport



Like last year, we quickly reached a point at which the lack of an agreed fares package meant that it was physically impossible to deliver any changes on 02 January and an alternative date of Tuesday 01 March 2022 was therefore suggested as a workable alternative, to allow sufficient time for fare tables to be prepared and changes implemented.

Unlike last year, we are still without an agreed long term funding settlement and as we go to print with this edition of TRU, we are rapidly approaching the point at which, even if a fares package is agreed, there will be insufficient time left before the deadlines for Cubic to be able to deliver the changes on 01 March, particular as the Christmas and New Year holiday period reduces the amount of time available to complete the necessary preparatory work.



On [Page 2](#) inside, we have a more detailed look at the implications of the delay in setting the new fares both on the main fares revision and those scheduled to take place later in the year.



KEY STORIES INSIDE

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[COLLECTION & CHD ISSUES](#)

We provide updates on the on-going issues with cash collections and CHD faults.

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[LOOKING AHEAD](#)

We take a look forward to what might be instore for 2022!

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[MFM NHU UPGRADE](#)

The latest update on the project to replace note handling equipment in MFMs.

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[PED REPLACEMENT](#)

We outline first steps towards replacing our current Chip & PIN equipment.

FARES REVISION UPDATE continued...

It was announced on Thursday 16 December, that the DfT had reached agreement regarding the level of 2022 fares on the National Rail network, so the London area Train Operating Companies (TOCs) should be in a position to compile their own fares ready for 01 March within the parameters set. The 2022 NR fares increase has been announced as being an average increase of 3.8% on regulated fares. This is in line with the July 2021 Retail Price Index (RPI).

This could now potentially mean that TOC fares might increase from 01 March even if TfL fares may have to increase at a later date. This is obviously not ideal, but it has happened before.

This level of uncertainty will also have implications beyond the planned March date. Each year we would normally have three main fares revisions, in January, May and September, with the provision within the Revenue Collection Contract with Cubic for a fourth revision if this is needed. Apart from the opportunity to make changes to fares, these are the only opportunities we have to make other system changes such as adding new locations for stations that are due to open later in the year.

Like last year when we were forced to postpone the January Fares Revision until March 2021, moving the main fares revision back by two months has an impact on the following revision in May. The spacing of these fares revisions already means that preparations for May have to start just before the January changes have been implemented, so closing the gap gives Cubic insufficient time to make major changes in May. As a result no major changes were made in May and some changes had to be deferred until September instead.

At the moment we don't know what will happen next year, whether the May fares revision will go ahead or whether it will possibly be delayed by several weeks and take place in mid-June instead?

If the May Fares Revision is also moved back, this will close the gap between it and the September date, which possibly will also need to be moved.

So regrettably although in this edition we would normally be able to provide an outline of what the fares next year will be, at the moment we are unable to give any definitive answers on what the fares will be or when they will change.

Hopefully by the time we publish our next edition in January, things may have become a lot clearer (fingers crossed).



DENIED EXIT CHANGE ALSO DELAYED

In [TRU134](#), we reported that the project to change the way that contactless payment cards / devices that are rejected on exit are handled by gate readers had been resurrected and following a planned Vanguard at a number of LU stations in November, it was scheduled to be implemented across LU stations in early January.



To deliver this particular change, requires changes to both the reader (RTD) on the gate and to the TfL back office systems, to be able to handle the new transactions generated. Unfortunately not long after publication of [TRU134](#), we were advised that due to some resource issues and conflicts with other projects, the required upgrade in the TfL back office could not be delivered in time for the Vanguard to go ahead as planned.

This means that the original planned date for deployment in early January can now not be met and we are now working towards the Vanguard commencing around 17 January. This will follow an initial base data change for the 23 stations affected, which is due to take place the preceding Sunday. The rollout to other LU stations is now scheduled for Sunday 06 February, having previously been delayed until early March, (following the planned fares revision if that goes ahead).

Further information on this upgrade is included within our update on Gate Upgrades article on [Page 12](#).

One issue to clarify is that when these changes are implemented, it will not be operative at NR stations, or at LU stations that are directly served by NR trains, as there is currently no agreement with the relevant train operators for a change in the way that incomplete journeys are treated, which has implications on how revenue from these is apportioned.



COLLECTION ISSUES CONTINUE

In [TRUI34](#), we outlined some of the on-going issues we were having with G4S cash collections and deliveries due to some severe staffing issues at the main G4S depot that serves a large part of the LU network.



Unfortunately, despite additional staff being seconded in from other parts of the country and the recent recruitment of additional staff to fill some of their vacancies, we are continuing to see a much higher level of missed collections than we would expect.

There have been some recent improvements in collection rates, but progress has been hampered by staff sickness and the worsening Covid situation which has required staff to isolate and further reduced the number of staff available to perform services for us and their other customers.

We are continuing to follow-up missed collections with G4S and prioritise sites that have had multiple missed collections, but this is proving to be a bit of an uphill struggle at the moment.

We are currently only seeing around 50% of services scheduled to be undertaken by the G4S depot in Nine Elms being completed. Whilst their other depots are also having challenges, their level of completed services has been much higher. This unfortunately means that a number of outlying stations have been receiving regular collections as scheduled, whilst some of our busier sites within the central London area are being regularly missed.

Preparation of the revised schedules for the Christmas period highlighted a number of errors in the G4S version of our schedule, which had resulted in a small number of stations due fortnightly collections being loaded for the wrong week and a couple of stations having incorrect collection frequencies. These have now been rectified.

Hopefully we will see things gradually returning to normal and a higher level of services completed in the New Year.

CHRISTMAS & NEW YEAR COLLECTIONS



This year Christmas Day and Boxing Day fall over a weekend, meaning that the two compensating bank holidays will be on the following Monday and Tuesday.

We would normally adjust schedules to accommodate collections before or after Christmas, but this year G4S have restricted a number of days to scheduled services only. As a result, we have had to make more changes to collection arrangements over the Christmas period than we would normally make.

We have also had to take account of the pressures that G4S are currently under in trying to reduce our requirements over a period where customer numbers are likely to be much lower than normal. The number of scheduled collections during week commencing Monday 27 December will therefore be very limited.

Details of the changes to the collection schedules over the Christmas and New Year holiday period will be communicated to Area Managers and CSMs by email, but due to the on-going issues outlined above, it will be extremely difficult to arrange any additional services during this period.

In the run-up to Christmas we will be working with G4S to undertake a final push to complete collections at sites that have been missed, before the holiday period.

Part 1 – Before PAYG, customers used to be able to purchase a pack of 10 discounted single journey magnetic tickets for travel between Zone 1 stations...

Q1) ...But what were these tickets called?

- | | | | |
|----------|-----------|----------|----------|
| A | One-shots | B | Carnets |
| C | Kwikticks | D | Tentrips |



Ticketing & Revenue
T&R
Trivia

Answers on Page 15

In both [TRUI33](#) and [TRUI34](#), we outlined some challenges being faced by our Cash Handling Device (CHD) maintainers Pay Complete, following the return to accepting cash at our stations.

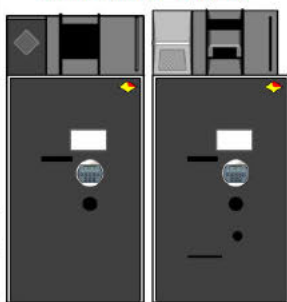
Since our last update, Pay Complete have successfully recruited engineers to bring their team back up to strength. However, we have faced some very challenging times in trying to keep all of our CHDs in working order.

The initial issue which we highlighted in [TRUI33](#) affected a component within the Note Acceptor / Note Recycler units of the CHD.



A number of devices which had stood idle during the year that some stations weren't taking cash has contributed to unprecedented levels of failures of one particular module which scans and validates the note as it is inserted and then moves the note through the device.

CATEGORY 'A' DEVICE



The level of failures has resulted in the stock of spares being exhausted on more than one occasion and although regular consignments of spares are being shipped from the manufacturers in Italy, the supply chain has been hampered by issues with haulage and Brexit related delays.

This has resulted in each consignment being delayed and then being quickly used up soon after its arrival in London.

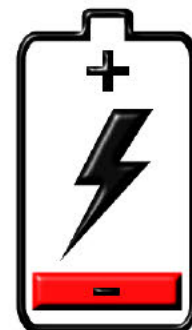
At present the level of these particular failures does not seem to be reducing as we had hoped, and we are seeing further units failing with this defect.

Unfortunately, this will mean that response times to fix these faults may be a lot longer than would be expected for normal CHD faults and may be over two weeks if parts aren't available.

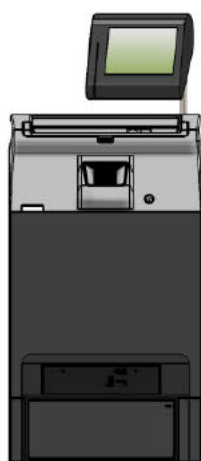
Please bear with us during this time and follow-up initial faults via the [Ticketing Escalation](#) mailbox rather than by calling the Pay Complete Fault Report number, as they are only call handlers and can only take details and issue a reference number relating to that particular phone call.

They do not have access to check the Pay Complete system to check on the progress of a fault or chase outstanding jobs. Pay Complete will allocate a single job number and this will remain open until fixed, even if there have been multiple calls made to their fault report line.

A further CHD related issue we have seen recently, affects the internal battery within the lock on the CHD note units. This is used by the G4S custodian to access the device to remove the collection sack. Again, the root cause of a high level of recent failures seems to stem from a long period where certain devices were not used and the lock was not activated.



This resulted in low battery warnings that would normally be given before the battery runs out of power, being missed. This situation has been made considerably worse by the recent high level of missed collections referred to on [Page 3](#), which have extended the times between the lock being used at certain sites.



CATEGORY 'B' DEVICE



As a result of these battery failures we have seen a number of recent failed cash collections, due to the custodian being unable to open the CHD safe door, which then have required the attendance of a Pay Complete engineer to replace the battery and restore access.

Unfortunately, at a time when we have had trouble in getting G4S to attend some sites, this has required a further visit to be made to complete the collection process.

To try and reduce instances of this happening, we have tried to identify devices that have not been accessed for longer periods and have asked Pay Complete to undertake some Preventative Maintenance visits to replace the battery in the lock before it actually fails.



POM REDUCTION... UPDATE

As 2021 comes to an end, there has been some progress on the next phase of work to reduce the number of POMs we have at some of our stations.

Following the project receiving financial approval, a variation has now been issued to Cubic to take forward the next phase of device removals, which will focus on the removal of a further batch of QBMs and the completion of a number of schemes to consolidate POMs into a single location at stations which currently have split POM arrays.

The go ahead came too close to the end of the year for any physical works to be undertaken before the New Year, but Cubic are now in a position to proceed with the ordering of materials that will be needed and in particular to order the required quantities of infill panels to fill the gaps left by the removal of a further 29 QBMs and some AFMs.



Free standing QBMs that could not be removed during Phase I:

ASHFIELD HOUSE	19	
PADDINGTON (Main)	19	
BAYSWATER	19	
QUEENS PARK	19	

QBMs to be replaced with additional AFMs:

WESTMINSTER	19	
WEMBLEY PARK (Bridge Rd)	19	
TOTTENHAM COURT ROAD	17	18

QBMs to be removed as part of POM Consolidation works:

WATERLOO (Main)	18	
WATERLOO (Assist)	19	
HOLBORN	18	19
PICCADILLY CIRCUS	18	19

QBMS to be remove and replaced with infill panels:

SOUTH KENSINGTON	18	19
LIVERPOOL STREET (Central)	19	
WOOD LANE	18	
HAMMERSMITH D (South)	19	
HAMMERSMITH D (Main)	17	
FINCHLEY ROAD	19	
NOTTING HILL GATE	19	
HARROW ON THE HILL	19	
MANOR HOUSE	19	
TOOTING BROADWAY	18	
CLAPHAM COMMON	19	
BERMONDSEY	19	
UPTON PARK	19	
ST PAULS	19	

Experience from the first phase of QBM removals earlier in 2021 has shown us that the spaces occupied by devices are not all of a uniform size, so this time round Cubic have already surveyed each location and measured up for the size and colour of panel that will be needed.

The order will also include replacement panels for three sites where the panel installed in February were either the wrong colour or the wrong size.

It is hoped that work on removing devices will begin towards the end of January / beginning of February 2022, with completion expected before the Easter break.

The devices scheduled for removal in the next phase are broken down as shown in the table on the left.

POM consolidation schemes are due to be undertaken at the following locations:

- Waterloo (Main) and Waterloo (Assist)
- Holborn (Main) and Holborn (Remote POM)
- Chancery Lane (Main) and Chancery Lane (Remote POM)
- Piccadilly Circus

Within the scope of this variation we have also included the removal of some additional devices that are no longer required, plus the transfer of the gates on the Canary Wharf (East) gateline onto the same Station Computer (SC) as the other newly completed gate arrays at the station.

This should in future provide greater visibility of the whole of the station on the Station Control Room SCU, which currently only has visibility and control of devices linked to the Canary Wharf (West) SC.



Local consultation is being undertaken in relation to proposals to remove or mothball a number of AFMs, with many areas having already having confirmed their preferences for which devices should be sacrificed.

In most cases devices chosen are already closed to assist with social distancing, whilst feedback has also identified that spacing machines out with a gap between them would help with customer confidence in relation to PIN security.

NORTHERN LINE BANK BRANCH CLOSURE

From Saturday 15 January 2022, there will be a major blockade of the Northern line City branch to facilitate the construction of a new platform and realigned running tunnel at Bank, as part of the major station capacity improvement works at Bank / Monument.

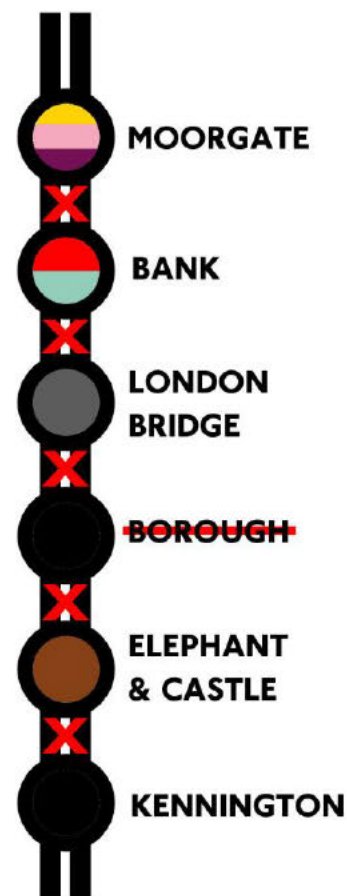
The work will be similar to that previously undertaken on this branch of the Northern line at both Angel and London Bridge, where diversion of the original running tunnel and construction of a new platform, allowed one of the original Northern line platforms and space previously occupied by the running lines, to be converted into an enlarged circulating area between the old and new platforms.

The forthcoming blockade will see the suspension of the Northern line service between Moorgate and Kennington for a period of approximately 17 weeks until May 2022 and will mean that Borough station and the Northern line ticket hall at Elephant & Castle will be closed for the duration of these works.

As all stations other than Borough are served by other lines, in most cases it will be a matter of diverting customers to alternative routings to complete their journeys.

For example, customers travelling southbound who would normally change on to the Central line at Bank, should instead use the Circle, Hammersmith & City or Metropolitan line services from Moorgate to Liverpool Street and join the Central line there. Similarly, customers travelling from the south end of the line who would normally interchange onto the Jubilee line at London Bridge will need to use the Charing Cross branch and change at Waterloo.

A new temporary bus route (733) will operate Monday to Friday from Oval station through the City to Finsbury Circus and 8 Rail Replacement buses will also run each hour on a Monday to Friday basis between Moorgate and Oval stations.



NEW YEARS EVE TRAVEL ARRANGEMENTS

Unlike in previous years, it has recently been confirmed that this New Year's Eve we will not be offering free travel from 23.45 hours through to start of traffic on 01 January.

As a result, normal fares will apply throughout the night on all TfL modes that are operating.



Station staff are reminded that in order to avoid problems with incomplete journeys, the gates must not be powered down and customers encouraged to touch in and out as normal. Any gates that go offline or fail during this time period must be reported immediately to the Cubic Help Desk.



GATELINE KEYS

Keys are only issued to	STATION STAFF	REVENUE CONTROL	CUBIC TECHNICIANS
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It has been brought to light that a number of Gateline keys may have been incorrectly issued to contractors who have been using them at the gates to gain access to stations instead of requesting access from a member of staff.

As these keys also allow access to SCU cabinets and gates access panels, this is obviously a security loophole we need to address.

Gateline keys must only be used by the staff listed in the table above and only in the course of carrying out station operations.

Any Gateline keys used to access stations by contractors must be withdrawn and arrangements made to return them to T&R by contacting [redacted]





LOOKING AHEAD TO 2022

In our last edition of TRU each year, we like to take a look ahead to what is planned for the forthcoming year.

As in previous years we asked Olly Oyster to pop forward in time to identify some of his top priority T&R issues for 2022. Unfortunately 2021 has not been the easiest of years and as a result a number of items that were in Olly's vision for the current year, are there again for the year ahead!

SO WHAT IS OLLY'S 2022 VISION?

1 ELIZABETH LINE OPENING

The wait for the opening of the central section of the new line continues, but we are getting nearer with a number of sites now ready and a March 2022 opening date on the cards.

2 2022 FARES CHANGES

Like this time last year, the postponement of the traditional 02 January Fares Revision has caused an amount of uncertainty over what fares will be in 2022 and when we will be able to change them. Hopefully all will become clear early in the New Year!

3 POM REDUCTIONS

The first part of the year is due to see the removal of a further batch of QBMs from our stations and implementation of a number of schemes to consolidate POM Rooms. Later in the year we are likely to see the number of AFMs reduced with a number of devices mothballed or removed. .

4 MFM NHU REPLACEMENT

It has taken a while, but early in 2022 we hope to recommence the programme of replacing the last of the existing Bank Note Acceptor (BNA) units in our MFMs with new note handling equipment.

5 PNEUMATIC GATE PODS

2022 should hopefully see the last element of the gate POD upgrade completed, with a change to the older pneumatic gates to allow information to be displayed on both sides of the new PODs on single direction gates.

6 CONTACTLESS DENIED EXIT CHANGE

After a year when it was very much on and then off, we are hoping that we will be able to Vanguard this change early in the New Year, before the planned deployment to LU stations in March.

7 WAG MOTORS AND PADDLES

We are hoping to improve reliability of WAGs by deploying improved motors, paddle shafts and the new design of lighter paddles to a number of our WAGs that have seen high levels of motor replacements.

8 THE END OF PAPER MONEY

In September the Bank of England are due to withdraw the paper version of the £20 and £50 note, making it all polymer from that point and the end of paper money!

9 GATE IMPROVEMENTS

February 2022 should see the completion of the final upgrades to our EI gates and following the completion of the current Vanguard on pneumatic gates, we hope to deploy a modification to improve the performance of the light beams on these gates

10 RETURN TO NORMAL

Hopefully after approaching 2 years of difficulties caused by the Covid pandemic, we will return to something that looks a bit like normality!



Got a ticketing and revenue related question, problem or simply noticed something you think your colleagues should know about?

Why not test the knowledge of Olly - our resident ticketing guru.



From: [REDACTED]
Sent: 25 October 2021 12:55
To: Ask Olly
Subject: Double tapping contactless

Hey Olly,

Here's a myth you may be able to solve for us?

If a customer uses the same card to tap in, then waits for 2 minutes, then taps in for another customer, can they do the same on exit to complete two customer journeys?

Kind regards

[REDACTED]
[REDACTED]
[REDACTED]

Hi [REDACTED]

Thank you for your email and query.

This is an issue we are currently following up with the TfL Tech & Data team who manage the back-office system that handles contactless payments.

In the scenario you have described, in theory the customer should get one complete journey from the second entry validation and first exit validation then an incomplete journey for the second exit.

However, indications from various station colleagues concerning customer behaviours they have observed, would seem to indicate that the customer is probably under-paying, rather than being penalised for an incomplete journey.

If you observe any further instances of this happening and can record the time and gate numbers please let the T&R team know, so that we can trace the transactions concerned and establish what charges were made.

Regards

Olly Oyster

Hi [REDACTED]

Thanks for your email and raising this issue.

We have had several similar queries recently regarding customers appearing to use the same card to allow a second person to travel.

The basic rule of contactless PAYG travel is that the card can only be used by one customer and they will need to touch-in and out with the same card or device to be charged correctly.

In the scenario you describe, the actual contactless bankcard and the mobile device linked to the card account will have different identities when presented to the reader, so will be treated completely separately for charging purposes. Conversely if a customer touches-in with their contactless bankcard and then touches out with a device linked to their card, they will end up being charged for two incomplete journeys.

Hope that this answers your query.

Regards

Olly Oyster

From: [REDACTED]
Sent: 19 November 2021 18:14
To: Ask Olly
Subject: Contactless

Hi Olly,

Is it true that a customer can touch with their physical bankcard and also touch someone else in with the same bankcard but using their smartphone?

I have seen customers do this but wanted to know if it is a legitimate way of paying for two journeys or does it over or undercharge on one or other of the transactions?

Many thanks in advance and regards from Lancaster Gate,

[REDACTED]
[REDACTED]
[REDACTED]



From: [REDACTED]
 Sent: 16 December 2021 14:16
 To: Ask Olly
 Subject: Query Re: Bus and tram discount registration

Dear Olly,

I am hoping you can clarify a situation for me.

I remember reading in a Hot Issues Bulletin that, due to an increase in fraud on Bus & Tram discount cards, customers were required to register their Oyster cards online before staff could link the discount. This is how I have conducted things with customers and generally never had a problem. However, today I had an unhappy gentlemen who stated he has previously had several colleagues of mine register his card on the POM.

To save me wading through several years' worth of issues to try and find the correct section, I would be appreciative if you could clarify this for me.

Many thanks

[REDACTED]

[REDACTED]

[REDACTED]

Hi [REDACTED]

For most discounts including Bus & Tram, the customer should register the card online.

At the station the card will still appear as unregistered as the registration flag has not been set on the actual card.

Before the discount can be added the member of staff will need to set the registration flag by getting the customer to enter their Password and postcode in the appropriate fields.

For Privilege discounts the card needs to be fully registered on the TOM at the station, before the discount is added.

Hope this clarifies things for you

Regards

Olly Oyster



Hi [REDACTED]

Thanks for highlighting this issue.

Following discussions with the Cubic base data team and TfL Fares team, we now understand the reason for why Single tickets are not currently offered on the TVMs and POMs at Finsbury Park.

The problem emanates from the fact that the first destination that appears when you type in "KINGS" is a King's Cross button, which is actually linked to the NLC for King's Cross mainline station and currently only offers Point to Point tickets for Railcard holders (which are only available Off Peak).

There is another destination button "King's Cross St Pancras" for the LU NLC, which will sell the Station of Origin (SOO) Single and Return tickets to Kings Cross.

Strangely although Highbury & Islington has a similar range of tickets, the POMs there have been configured slightly differently and both Point to Point and SOO options are offered via the same destination button.

We are currently looking into the best way to resolve the issue for customers and to achieve consistency at the two stations on your area.

This is change that will have to be implemented at a fares revision, so will now have to wait until 01 March 2022.

Regards

Olly Oyster

From: [REDACTED]
 Sent: 27 September 2021 10:07
 To: Ask Olly
 Subject: Finsbury Park Single to Kings Cross

Hi Olly,

A customer has tried to buy a Single ticket selecting the destination button for Kings Cross, but the TVMs did not allow it.

We have subsequently found that all of our machines at Finsbury Park will not sell Single tickets to Kings Cross. They do, however, sell Return tickets.

We can buy Single tickets to destination Kings Cross St Pancras, if that is selected.

A Reboot was done by Cubic, but this had no effect.

Highbury & Islington have checked their POMs, they are fine and can sell tickets to the destination Kings Cross.

Regards

[REDACTED]

[REDACTED]

CHARITY UPDATE



The run up to Christmas traditionally sees LU make donations to our two nominated T&R charities in respect of money that has been overpaid by customers using our POMs during the preceding 12 months.

The last year has been far from normal in many ways, but much lower customer numbers throughout the last 12 months, reduced POM usage and the fact that most stations were not accepting cash payments for a large part of the year, meant that this year's POM overpayment total was expected to be very much lower than in previous years.

Although during the year, the value of overpayments had slowly increased over the final few periods, the total figure only amounted to £2,069. This is a considerable drop on the previous year's total of £11,753.

This year's amount has been split between Railway Children and Global's Make Some Noise, with each charity receiving £1,034 at the beginning of December. This year's payment takes the total raised from this scheme since it was launched in 2008 to over £314k.

The scheme has operated from 2008-21	Divided equally between our two nominated charities		Total raised over 12 years
	Railway Children	Global Make Some Noise*	
Total for each charity	£157,037	£157,037	£314,074

Like last year, we were not able to make the presentation face to face, but both charities were very appreciative of the payment in what has been another tough year for the charity sector.

In [TRUI34](#), as part of our coverage of the most recent payment of money donated by customers through the POM Oyster Donation scheme, we outlined how the donation from LU would help that charity, so in this edition we have focussed on the work of the other charity Make Some Noise.



Global's Make Some Noise improves lives by supporting brilliant small charities in communities all across the UK. As you can imagine, with the year or two we've all had, small charities have especially struggled to survive. However, these small, local charities do incredible work and are a lifeline to those who use their services.

This year, Make Some Noise is funding a hundred small charities; each one of them provides vital support, not only to people who need their help, but also to their families and the wider community. They range of small charities includes;

MENTAL HEALTH PROGRAMMES	DOMESTIC VIOLENCE HELPLINES	COMMUNITY PROJECTS
CARER SUPPORT	FOOD BANKS	EMPLOYMENT PROGRAMMES



Partnerships Development and Events Manager said:

"Thanks to London Underground for their ongoing support of Make Some Noise. Your donation will make a huge difference to the small and local charities that many people would be lost without. People like Tim..."



Tim was 18 when he became homeless due to a breakdown of relationships with his family. Thanks to C4WS Homeless Project, a charity based in London that helps homeless people rebuild their lives, Tim found the support and help he needed to access housing.

It was the first time he had lived independently and Tim was anxious about this so we referred him to our counselling service to give him some support. He used out Jobs Club to learn what is needed to access the workplace and we found Tim a placement in IT which matched his skills with computers.

Tim's placement was so successful that they offered him a job and two years on, he is an integral part of the team there.

Tim is now enjoying living in a house share with other young people and has joined the C4WS Steering Group, to help develop services and focus on the needs of those accessing the charity.



CHARITY UPDATE continued....

OYSTER DONATION UPDATE

In [TRU134](#), we covered how the contribution of the Oyster card donation scheme on our POMs had helped Railway Children and we are pleased to now report that at the end of week commencing Sunday 05 December the total amount donated by customers via this facility passed the £100K mark.

This is a massive achievement given that the scheme was launched in March 2020 a week before the first Covid 19 lockdown hit us. Since then we have operated with lower customer numbers and very few tourists in London, who we would normally expect to contribute a sizeable chunk of donations.

The total figure raised up to Saturday 11 December was actually £100,212.26, of which the major part; £99,414.28 has been donated at LU stations. It also means that we have already amassed nearly £10k towards our next payment to Railway Children and the money will hopefully continue to roll in to boost that number further.



Mode	PAYG donated	Deposits donated	Total donated
LU POMs	£36,261.28	£63,153.00	£99,414.28
LONDON BUS TVMs	£171.39	£202.55	£373.94
HEX TVMs	£262.24	£161.80	£424.04
Total	£36,694.91	£63,517.35	£100,212.26

The table on the left shows the breakdown of donations across modes and the split between PAYG donated and the value of deposits on older Oyster cards that have been cancelled.

As the number of cards with refundable deposits diminishes, this figure is not likely to grow as quickly as when the scheme was initially launched.

We will continue to accumulate donations via this scheme, as we build towards our next planned payment to the charity, which is likely to be in spring 2022.

The scheme was recently featured in a TfL Press Release and on the TfL page within the Metro newspaper on Tuesday 30 November, as part of TfL's support of this year's RAILAID events.



We hope to be able to provide an update on this year's event and how much it helped raise for Railway Children in our next edition of TRU in January 2022.



Part 2 – The font used on London Underground is famously known as Johnston typeface, the latest variant of which is Johnston I00...

Q2) ...But do you know the name of the new font used on all Network Rail station signs since October 2021



Answers on Page 15

A NR Brunel

B Rail Alphabet 2

C Gill Sans

D Arial

REVENUE PROJECTS

GATE UPDATES

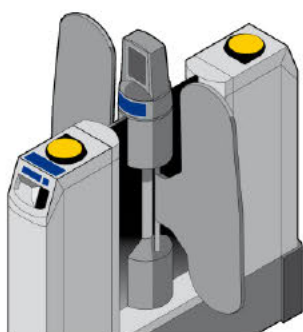
As 2021 comes to an end, we provide a quick round up on where we are with various initiatives affecting our gates.

Gate reader upgrades

The planned upgrade to RTD (card reader) software for ITSO flexi-pass acceptance was successfully completed on Sunday 21 November, with all Gates and PValS receiving the new software.

The Vanguard of a further RTD change in readiness for the implementation of a change to the way that gates handle rejected contactless transactions on exit has been delayed, as outlined in more detail in our article on [Page 2](#). This Vanguard is now scheduled to start from Monday 17 January, with implementation now earmarked for Sunday 06 February, having initially been deferred from January until after the proposed fares revision in March.

EI Gates

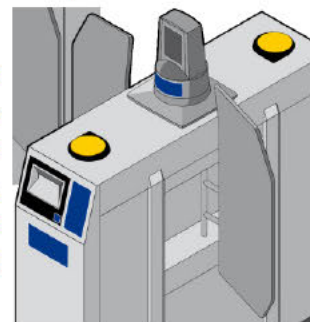


The current programme to upgrade the Beam Logic Unit (BLU) and the paddle control software on EI gates has now been paused until the New Year, with stations on the north end of the Northern and Piccadilly lines being the most recent visited. Once the programme resumes in early January, we are hoping that all stations with EI gates will have been upgraded by the beginning of February.

A recent review of BLU related failures across all EI type gates has indicated that the number of recent BLU faults has reduced by about 50% compared to the levels seen before the rollout started. This is particularly encouraging since not all stations have yet had the changes implemented and a welcomed improvement in performance.

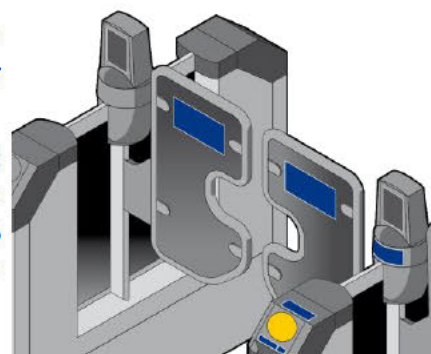
Pneumatic Gates

Following the completion of the BLU modifications on EI gates, the Cubic installation team will hopefully be moving on in early February, to start a similar programme to improve the performance and reliability of the light beams on the older pneumatic gates. We currently have a Vanguard of this modification underway at Bank (Central), Pimlico and Waterloo (Main) gatelines and the results from these sites are due to be reviewed early in the New Year to ascertain whether improvements in reliability and a reduction in BLU faults have been seen at these sites.



A further change to pneumatic gates will now take place in the New Year. The testing of new pneumatic gate LCP software was completed on Tuesday 14 December, having been delayed by resources being required for other projects. Unfortunately, completion came too late for us to be able to Vanguard this software before Christmas due to the end of year change freeze which commenced on 13 December, which has also impacted on some other projects.

It is planned to commence a Vanguard of this change which will provide reject code and ticket monitoring indications on both sides of dedicated entry gates at Bank (Monument), Tower Hill and Victoria (District) from Thursday 06 January and if all is well, for it to be deployed to all pneumatic gates from Friday 04 February 2022.



WAGs

Last but not least, as outlined in [TRU134](#), we are planning to deploy new light weight paddles and ruggedised motors to a number of WAGs that have seen high levels of motor replacements. The necessary parts have been ordered by Cubic and a number of motors and paddle shafts prepared ready for installation.

We had hoped some installations could have been completed before Christmas, but this has not been possible and it will now be scheduled to take place in the New Year.



MFM NHU UPDATE

COMPLETED ✓

All of the 100 MFMs fitted with the original Bank Note Recycler (BNR) units have now been upgraded and fitted with the new Pay Complete design of BNR. Two MFMs at Heathrow T4 which have been mothballed whilst that station remains closed are yet to be upgraded, but it is expected that these and some devices currently in store at Cubic will be updated early in the New Year to complete the deployment.

This will ensure that the devices at that station are ready for when it reopens and means that all of the previous BNR units and spares can then be scrapped.

Deployment of the new Pay Complete Note Handling Units (NHU) to stations where the MFM is fitted with a Bank Note Acceptor (BNA) has been further delayed, whilst Cubic continue investigations into on-going reliability issues on devices fitted with the new units.

Since our last edition of TRU, Cubic have undertaken a couple of rounds of visits to check the alignment of the NHU and the backbone that it is mounted on, following concern that some instances of note jams and of notes not being returned to customers, had been caused by a minor misalignment of the unit within the MFM.

Cubic have also recently started a Vanguard of a new version of NHU firmware on a number of devices fitted with the Pay Complete BNA and on which we have seen high levels of note jams and NHU faults. The upgrade was first applied to the following four devices from 01 December:



WARREN STREET (MFM30)

BETHNAL GREEN (MFM30)

MILE END (MFM30)

TURNPIKE LANE (MFM30)

Following some positive results from these devices Cubic have upgraded a further 10 MFMs which again have seen higher levels of note jams. These were upgraded during engineer visits to the following sites between Wednesday 15 and Friday 17 December:

ARCHWAY

COLINDALE

DAGENHAM HEATHWAY

EAST HAM

ELEPHANT & CASTLE (Bak)

HARROW ON THE HILL

LEYTON

PIMLICO

TOOTING BROADWAY

UPTON PARK



We understand that this new NHU firmware will address an issue which is possibly caused by the clear vision panel in polymer banknotes being mistaken as the end of the note and the note vault shutter closing prematurely before the note is inside.

We had a very similar issue on the original BNA units when the polymer £5 note was introduced, caused by a photocell shining through the window in the note and closing the vault too quickly, if the note was inserted a particular way round.

If the current Vanguard is successful, the new firmware will then be rolled out to other devices fitted with the Pay Complete BNA unit in the New Year.

Once these reliability issues have been resolved, it is then planned to resume the upgrade and replacement of the remaining MFMs that still have the older style BNA units.

This is likely to recommence in February 2022.



Part 3 – The paper £20 banknote is to remain as legal tender until 30 September 2022, but...

Q3) ...can you remember whose image is printed on the back of the note?

A ALAN TURING

B WINSTON CHURCHILL

C ADAM SMITH

D FLORENCE NIGHTINGALE



Ticketing & Revenue

T&R
Trivia

Answers on Page 15

REVENUE PROJECTS

TVM SOFTWARE UPDATES

Further to our articles in [TRU134](#), we are pleased to report that following a successful Vanguard, the planned software update to all LU TVMs has been completed, with the last devices upgraded on the night of Thursday 09 December.

We had also hoped that a further Vanguard of an updated version of TVM Note Handler Unit firmware would be underway by the time we published this edition of TRU.

Although the necessary testing of this firmware has been successfully completed by Cubic, we have been thwarted by an end of year change freeze which started on Monday 13 December and has prevented the planned deployment.

Normally this would have fallen within the change moratorium for the January Fares Revision, but as the fares revision is not going ahead this January, we have been able to continue with some changes during December that we would normally have been unable to do. However, we are now not able to deploy any further changes until the New Year.

Cubic are planning to Vanguard the new TVM NHU firmware on the devices listed on the right from Thursday 06 January 2022.

COMPLETED ✓



KEW GARDENS
GUNNERSBURY
WEMBLEY CENTRAL



This update will require an engineer visit to each device, rather than being deployed remotely and will resolve an issue that has seen £50 notes wrongly accepted and then accounted for as £20 notes on a number of devices. Following this Vanguard, it is planned to then rollout the change to all other TVMs from Thursday 03 February.

One other TVM issue has recently come to light on some of the recently installed TVMs at ticket halls which opened earlier this year. This followed a number of "unauthorised entry" events being reported, where device alarms had been triggered.



At first these had been put down to TSID card holders possibly being unfamiliar with the new machines and not signing-on correctly.

However, further investigation has established that a number of these events had in fact been caused by the coin vault within the device momentarily losing communication with the interface board within the device. This resulted in an alarm condition being activated.

A TVM coin vault modification to address this year was undertaken about a year ago, but it now looks as if a number of devices that had either been pre-installed or were in storage awaiting installation, had been fitted with vaults that had not been modified.

We have now identified a number of potentially faulty vaults which may be affected by this issue and are arranging with Cubic for these to be swapped out for vaults that have had this modification completed.



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PED REPLACEMENT

The current Chip & PIN or PIN Entry Device (PED) as they are officially known, are coming towards the end of their lives. The units haven't been manufactured since 2019 and will no longer be supported after 2023.

As a result, the TfL Tech & Data team have recently started the long process of looking at replacement of the current units with Cubic.

From our experience of the last round of PED replacements, we know that this is going to be a major piece of work to identify suitable modules which are available and to then integrate them into each type of device.

Cubic are being asked to prepare a design study to identify suitable units, but it is likely that whatever unit is selected, it will also incorporate the facility for contactless payments as well as Chip & PIN transactions.

Contactless payment is now a payment card industry standard and it is likely that a unit that could not process contactless transactions would not be compliant in the future.

On LU we are in the unusual position of customers being able to use contactless directly to travel and most customers do not therefore need to make contactless payments on POMs.

Inclusion of contactless payment options will however benefit those customers that use Oyster as they have an active discount and customers wishing to buy tickets for others or to travel to NR destinations at which Oyster, or contactless payments aren't accepted.

The challenge will be to communicate this clearly to customers and avoid anyone unfamiliar with our network, purchasing a ticket with their contactless payment card, when they could have used the card itself to travel at a cheaper rate.

We currently have over 1,000 POMs on LU and although that number is likely to reduce as a result of planned POM reductions, (as outlined on [Page 5](#)) it will still represent a sizeable number of devices that will need to be fitted with new kit.



The change will also require new units to be fitted to TVMs, which were not around when the current PED was deployed.

SCU PROBLEMS

Cubic are still investigating the cause of an issue that has prevented them from being able to remotely upgrade or access devices to update or check screen displays on certain Station Control Units (SCUs). When such issues have been identified, it has required an engineer to visit the affected sites to reset them and allow them to be accessed remotely again.

It is believed that the issue may be linked to the Microsoft software that the devices run on.

Hopefully in the New Year a solution will be found that addresses this problem.

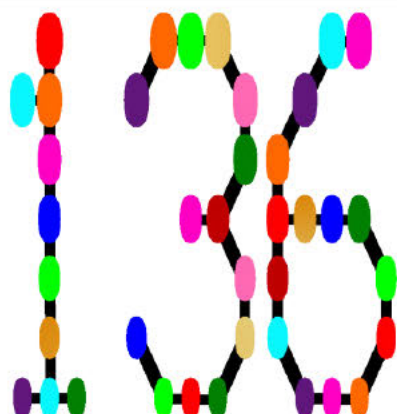
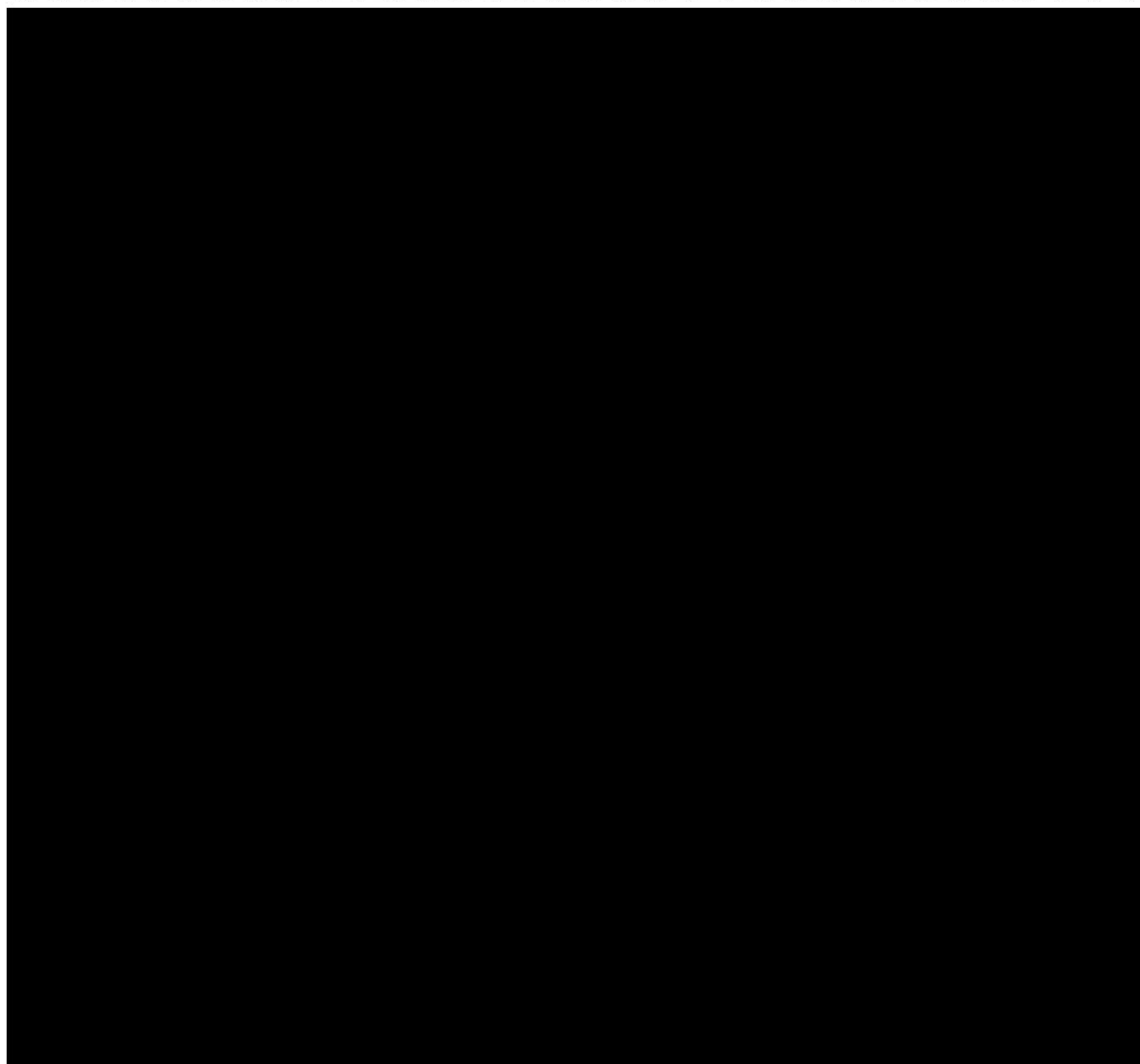


Pt. 1	B	CARNETS
Pt. 2	B	RAIL ALPHABET 2 Designed by Margaret Calvert, who also designed the iconic transport and motorway typefaces and most of the road signs we recognise today.
Pt. 3	C	ADAM SMITH - (Artist JMW Turner is on the £20 polymer note)

ANSWERS TO T&R TRIVIA

How did you do?

...AND FINALLY!



LOOKING AHEAD TO TRU136

We are planning to publish our next edition of TRU towards the end of January, when hopefully we will be able to provide further information on when the fares revision will take place and details of the changes to be implemented.

We will also be including:

- Our traditional look back at the events of 2021
- As project work resumes after the Christmas and New Year break, updates on all of the current T&R related projects.
- The latest T&R news stories, Plus a selection of our other regular features.

In the meantime we hope that all our readers have the best possible Christmas and New Year (under the current circumstances) and hoping for a much better 2022 for all!

