

Issue 139 - June / July 2022

Ticketing & Revenue Update

One year on we provide more detail about Oyster Capping and how it all works (Page 12)

Our Projects - Software and Hardware updates for Gates, POMs, SCUs and the RID2 starting on (Page 14)

At stations where LU interacts with the Elizabeth line, we tell you which additional tickets you can now expect to see (Page 7)

"Skimming" remains a threat and we need to remain vigilant (Page 14)

Our collection schedules have been reviewed and we've also news on a contract retender (Page 3)



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~~JUNE~~ FARES REVISION

FARES REVISION OVERVIEW

Implementation of the recent fares revision on Sunday 12 June went very smoothly, with no major issues being reported or devices needing engineers visits to get them to switch over to their new tables.

This meant that the fares revision could be signed off on the Tuesday, when the freeze on changes was also lifted.



Our devices are now offering fares consistent with devices at NR operated stations, ending the three-month period during which there had been a difference in pricing between LU and NR devices following the main fares revision on 01 March.

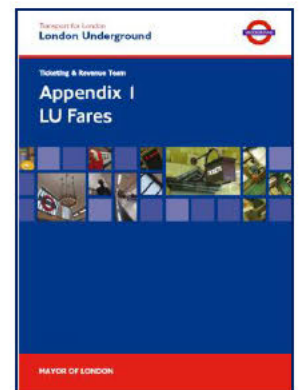
With the delayed “May Fares Revision” now out of the way, preparations have already started for the next Fares Revision on Sunday 04 September.

More news on that will be included in the August edition of TRU.

The Fares Revision Circular (FRC) is also being updated to include the September changes and will be published in late August. The news in this area is that up until now we have produced two sets of the same fare tables in both the FRC and T&R Book Appendix I – LU Fares, with just a few minor differences in content.

From September all this content will be combined and renamed as the T&R Book Appendix I – Fares Revision Circular.

Once updated, we will provide details and a link in the following Friday edition of the Hot Issues Bulletin.



APOLOGIES FOR THE DELAY IN SERVICE

Unfortunately it isn't just this year's fares revisions that are running late. Due to a combination of factors the planned publication of this edition of TRU has had to be delayed several times. An impact of this has been that several items that had been completed for the original publication date have had to be rewritten, due to changes in project timescales and developments that have happened since the original words were drafted.



Within the T&R team, like many stations on LU, we have been running with a reduced number of team members for several months whilst we waited for vacancies that had occurred during the pandemic to be filled. This has also had an impact on some of the other services we undertake, such as the supply of TSID cards, CSID PINs and PIN reminders.

The good news is that following a recent vacancy advert, we had a very large number of applicants (around 350) and we are currently in the process of reducing these to a manageable shortlist of candidates that will go forward to the interview stage.

This has proved a challenging process and sadly we will not be able to interview a number of potentially good applicants due to the volume of very good applications we have had. Hopefully by the time of our next edition, the interview process will have been completed and things will begin to return to normal?

Part I – In [TRU138](#) we told you about the launch of a special edition Elizabeth line Oyster Card, but...

oyster

Ticketing & Revenue
T&R
Trivia

Q1) ...can you place in correct order the 4 special edition cards below, from the oldest to the newest (careful – 2 were in the same year)?

A Royal Wedding – William & Kate B Year of the Bus

C LU 150 Anniversary D Queen's Diamond Jubilee

Answers on Page 19

TSID CARD REISSUE

The current 18xxxx range of TSID cards were introduced in spring 2018 and over 4 years later, we are now getting close to exhausting our stock of this current range of cards. As the TSID card range is fixed, this will mean that we will have to undertake a full reissue to all current TSID card holders later this year.



TSID REISSUE - THE KEY POINTS



- ▶ New TSID cards cannot be used until after the changeover date
- ▶ Following the changeover existing cards will no longer work
- ▶ New cards will have a new PIN, which staff will need to use on the front and rear of POMs and on the TOM/SAF
- ▶ The new TSID card PIN cannot be changed.

The process of doing this has recently commenced and we are currently working towards the change-over to the new range of cards taking place sometime in November 2022.

In the run up to this, there will need to be a card issuing freeze, during which we will not be issuing or replacing any further cards. This will enable us to manage the transition to the new range and ensure that prior to the change-over night, all TSID card holders have received their new card.

In the run-up to new card being issued, we will be checking TSID card holder lists with each area to ensure no-one has been overlooked when it comes to allocating the new cards.

Nearer the time we will provide further information on how and when the change-over will take place and the arrangements for each user's new card to be automatically linked to their Staff Oyster card and for their CHD access to also be migrated onto their new card.

When you do receive your new TSID card which will be numbered in a completely new series beginning 23xxxx, please ensure that you keep it and the associated PIN in a safe place until the change-over date.

T&R BOOK UPDATES

The process of updating the current editions of the T&R Books has suffered a number of delays, notably due to the Covid pandemic and restricted access to our offices over the last couple of years.

During that time there have been quite a lot of changes to the books, the details which we have published in the weekly [Hot Issues Bulletin](#), together with a summary showing all of the changes that have been made since the books were last updated.

Work has now started on updating each of the T&R Books and we hope to have the first couple of books completed in the next few weeks. Details of when the new versions are available will again be published in our Hot Issues Bulletin.



The main difference this time round is that we will no longer be producing printed copies of any of the books. The number of printed books has been gradually reduced over the years and now that most staff have access to the material via their iPad or a PC, it is an opportunity to save both paper and at a time when money is very short within the company, a considerable saving on printing and distribution costs.

Within this update we will also be completing the phasing out of the previous T&R Book 8, with the remaining content being migrated to other books in the series, the majority to a revamped T&R Book 5, which we have recently discovered was never posted online when it was updated in 2019.

Ticketing & Revenue Book and Name	Issue	Ticketing & Revenue Book and Name	Issue
1 – Security	8	8 – Helping Customers	14
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DISABLED PERSONS FREEDOM PASS

In the last couple of months, we were alerted to a couple of customer complaints concerning Disabled Persons Freedom Pass holders who had not been able to travel before 09:00 hours on weekdays.

Unfortunately, at the time, the details of the stations involved, or the actual card numbers were not fed through to us, but it appeared that the holders' cards had been rejected by the gates and station staff had then refused them travel.

The indication being that they weren't able to travel before 09:00 Monday to Friday.

It may have been that the cards affected were actually rejected for another reason, but not long after we had a couple of reports from stations at the southern end of the Northern line, that following the June Fares Revision, Disabled customers with Freedom Passes were not being accepted by the gates with a reject code indicating that they weren't valid at that time of day.

This was subsequently investigated by both Cubic and the Tech & Data testing team, but we were unable to identify any issues at these or other stations visited.



Please remember that although Older Persons Freedom Passes are only valid to start journeys after 09:00 hours on Mondays to Fridays, this restriction does not apply to holder of Disabled Persons Freedom Passes.

HOTLISTING OF FREEDOM PASSES

Staying on the subject of Freedom Passes, it is around this time of the year that London Councils complete a programme of checks for people who have previously been issued with Freedom Passes to see if they are still eligible to / still require them. They then inform TfL of the serial numbers for any cards where the holder may no longer be eligible to use the Pass. An example would be someone who has retired and moved out of London.

On receipt of this information, TfL arrange for the affected cards to be added to the Oyster card hotlist in batches. They will then be automatically disabled the next time they are presented to an RTD (card reader).

TfL have yet to be advised of the exact number of Freedom Passes that are affected this year, it is expected that batches of around 1,000 will be hot listed each day over a period of up to two weeks. In 2021 the number deactivated was 14,000 and in 2020 it was around 17,000.



For this Autumn's programme, Freedom Passes will start to be hot listed from Monday 22 August and a further notification will be included in our Hot Issues Bulletin nearer the time.

All staff are reminded that any disabled or cancelled Freedom Pass **must not** be accepted for travel and the holder must be advised to purchase a ticket or use PAYG if they wish to travel.

Any customers who believe they are still eligible to hold a Freedom Pass should be advised to contact the Freedom Pass helpline on 0300 330 1433.

Part 2 – Continuing our “which was issued first” theme, from the oldest to the newest...

Q2) ...Can you name the order these £5 notes were first issued, based on the image shown on the reverse?

- | | | | |
|---|--------------------|---|-------------------|
| A | George Stephenson | B | Winston Churchill |
| C | Duke of Wellington | D | Elizabeth Fry |



Ticketing & Revenue
T&R
Trivia

Answers on Page 19

CHARITY DONATION UPDATE



In the middle of May, we were able to make a further donation to our nominated charity, Railway Children. This was a further payment of the proceeds of the facility on our POMs, for customers to donate the PAYG balance and deposit on unwanted Oyster cards.

Since the scheme was originally launched at the end of February 2020, a total of over £120K has so far been donated by our customers, which has greatly assisted the charity during a period when small charities have found their finances squeezed by the cancellation of many big fundraising events.

The latest payment to the charity was for £21,622.74, covering a period of just over 7 months from 05 September 2021 to 23 April 2022. This was the fourth payment made to the charity since the scheme launched and brought the total that the charity has received to £112,142.

Since the cheque presentation, we have already amassed over £9k which will count towards the next payment and this figure will hopefully grow further week on week.

The steady growth in the number of customers using the network, together with the return of tourists to London will hopefully swell the coffers further, as visitors leaving London have always been one of the main areas for donations of actual cards or the remaining balance on a card via the facility on our POMs.

In addition to LU POMs and TVMs, which as you will see, account for the vast majority of the money donated, the Oyster Charity Donation facility is also available on a small number of TfL TVMs situated at major Bus Stations and on TVMs at the Rail stations at Heathrow.

The table below shows a breakdown of the payments made so far, together with the split of donations made across the three modes.

Payment date	LU POMs	Bus TVMs	HEx TVMs	Grand total
August 2020	£ 40,329.14	£ 77.07	£ 55.90	£ 40,462.11
February 2021	£ 27,800.15	£120.97	£104.34	£ 28,025.46
September 2021	£ 21,834.86	£ 96.52	£100.56	£ 22,031.94
April 2022	£ 21,038.47	£148.72	£435.55	£ 21,622.74
Total	£111,002.52	£443.28	£696.35	£112,142.25

Easing of Covid restrictions meant that for the first time in over two years we were able to make the cheque presentation in person, rather than as a 'virtual event' as we had done on the three previous occasions.

The latest cheque presentation was made at the rail industries joint Railtex / InfaRail exhibition which this year was held at the Olympia Exhibition Centre in Kensington between Tuesday 10 and Thursday 12 May.

Receiving the cheque on behalf of Railway Children was Dave Ellis ¹ (Corporate Partnerships Manager) who is seen alongside Alan Mundy ² LU Integration & Performance Manager and James Luto ³ from Cubic, who was Project Manager for the upgrade which introduced the facility onto our POMs.



CHARITY UPDATE continued.....

On receiving the latest payment, Dave Ellis told TRU:

"London Underground are genuinely one of our most valued partners and that is without doubt down to the determination and impact that so many of the team within have. The Oyster program is such an incredible example of this. Everyone at LU from the Ticketing and Revenue team, to all LU employees at all levels, to customers should be so proud of the impact you have been such a key part in helping Railway Children create for so many children."

"Since 2017, Railway Children have reached 68,655 children who were alone and at risk. You've been a crucial part in helping us reunite 18,133 children with their families and helping us to train 44,680 people to identify and protect vulnerable children."

As usual, we ask the charity to provide a case study to illustrate one of the ways that money generated through the Oyster Donation scheme may be put to use. One such example of the valuable work undertaken by the charity here in the UK involves Ade.

██████ was just 11 years old when British Transport Police found him alone on a train. He was in extreme danger but being a huge fan of railways only saw the fun he was having, not the risks he was taking. BTP made sure he was safe and took him home but asked us to follow up with him and his family.

When we first met ██████ who is autistic, it was clear he was obsessed with trains and knew everything about the models, the lines and the transport system in general – and he kept running away from home to go to the railway. The family was struggling to stop him.

Having arrived in this country as refugees, they were housed in a property fraught with danger for the five children and ██████ dad was out working all hours to support the family. His mum tried to keep the children under control but there was no fencing around the garden and not even a working lock on the front door, so ██████ found it easy to escape. Our project worker took ██████ to the station to teach him rail safety – pointing out the hazards and explaining the potential dangers.

Despite some of the advice being hard-hitting ██████ was more interested than ever and quickly understood why BTP, his school and his family were worrying about him. We helped the family get a rail pass so they could all go on train trips together, safely, and satisfy ██████ desire to be around the railways without him putting himself in danger.

At the same time, we contacted the family's landlord, who had just increased their rent, and insisted that some repairs were done to make the property safer for the children. He responded by doing this and also keeping the rent lower. Our team worked with ██████ for four months and over that time he has not gone missing again, preferring instead to enjoy time with his family safely – either at home or on a day trip together.

OYSTER CARD DONATION BOX UPDATE

The COVID lockdown and the resulting backlog of minor work projects has somewhat disrupted the installation of a new design of Oyster Card donation box at a number of Gateway stations on LU, with priority now given to other more pressing matters.

Although pre-COVID, boxes were very quickly installed at Heathrow T2&3 and Heathrow T4, prior to March 2020, there has not been any progress at other sites where space applications had been approved. However, we remain hopeful that we will have something to report to you shortly.

One recent piece of good news is that on Thursday 04 August, both Dave Ellis (Railway Children) and Alan Mundy (T&R Team) were able to visit the Heathrow installations and whilst there they displayed new posters above the Oyster card donation boxes providing information about the scheme and how the donations are used to help children and help them start their journey to a better future.

The image on the right was taken at Heathrow T4, where the box is installed on one of the ticket hall columns located near the POMs.



SPECIAL FEATURE

ELIZABETH LINE TICKETING [EXTRA]

Since the launch of the central section of the Elizabeth line, we have had plenty of queries regarding the ticketing arrangements for the new line.

Unfortunately, the Elizabeth line being a bit of a hybrid between National Rail and TfL, means that the ticketing arrangements are very complicated and at times, more than a little confusing for colleagues that have not previously worked at stations that interface with NR services.

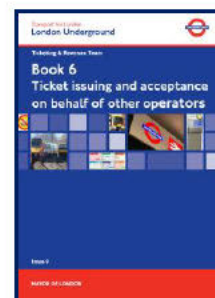
Unlike the eastern and western ends of the line where fares and ticketing arrangements largely follow NR rules, on the central section of the line between Abbey Wood and Paddington, fares are charged on the LU/TfL scale, like the rest of the LU network. Where most of the complications arise, is that although the LU scale applies to this section, NR tickets are also valid for journeys to and from these stations.

This means that at stations such as, Tottenham Court Road and eventually Bond Street when Elizabeth line stations start to call there, tickets and passes that would not previously have been valid there, can now be used for Elizabeth line journeys. These stations have now been included within the list of LU stations covered by the additional procedures included within [T&R Book 6 \(Ticket acceptance on behalf of other operators\)](#).

The other LU operated stations on the Elizabeth line; (Whitechapel, Moorgate, Farringdon and Liverpool Street) were already covered by T&R Book 6. This was on the basis that they were either already directly served by NR services, or in the case of Whitechapel by London Overground services or in the case of Liverpool Street, already accepted NR tickets for travel on LU between Liverpool Street and Stratford, as part of the inter-availability arrangements between LU and NR services.

Despite this the new service and journey options meant that types of ticket that had not been seen before, started to surface.

So, in addition to the Elizabeth line ticketing information that we previously published in [TRU137](#), we thought it would be useful to highlight some of the tickets and passes that have caused confusion so far, in this additional feature on Elizabeth line ticketing.



NR STAFF TRAVEL CARDS

The dated boxes on these cards give the holder free travel on NR services on the particular date the holder has entered in one of the boxes, but they are also valid to complete a journey on the following date. So a card with a box completed for 01/09, will also entitle the holder to free travel on Friday 02/09.



These could previously only be used for travel on a small number of sections of LU where inter-availability between LU and NR tickets existed, but this now also applies to the whole of the Elizabeth line. Holders of these cards can therefore use them to access the Elizabeth line services at the LU operated stations on the line. However, customers using Tottenham Court Road cannot use them to travel on the Northern or Central lines from that station. They are valid for travel on Northern or Circle & Hammersmith / Metropolitan lines from Moorgate to Kings Cross and on the Central line from Liverpool Street to Stratford as a result of the inter-availability arrangements on those services.

If the holder is not using one of the dated boxes, the same card can be used to support Privilege rate travel on LU or the Elizabeth line.

NR STAFF LEISURE CARDS

These are issued to TOC staff that are not entitled to the NR Staff Travelcard above and are not valid for travel on LU, other than the sections where inter-availability of tickets applies. Holders can get the "Priv NR only" discount added to their Oyster card at Elizabeth line or London Overground locations, but this discount must not be set at any LU sites. Holders can use the card to support discounted leisure journeys on the whole of Elizabeth line, using a privilege rate Single/Return ticket or PAYG at privilege rate.

As above, although valid on the Elizabeth line, Privilege rate journeys cannot be made from the LU operated Elizabeth line stations, using LU lines where these cards are not valid.



ELIZABETH LINE TICKETING [EXTRA] ...continued

OTHER NR PASSES – A number of other passes that are valid for travel on the NR network, but are rarely seen on the LU network, even on sections of line where they have always been valid, have started to appear at Elizabeth line stations. Again, further details of these have been included within T&R Book 6.

It would appear that within the early weeks of operations starting on the central section of the line, there was clearly an element of customers using the new line as an attraction, rather than just a means of getting from A to B. As a result holders of a number of these facilities appear to have been attracted to sue the line and visit stations that they would not previously have been able to travel to.

NR STATUS PASSES

These are issued to active and retired senior managers of TOCs and within Network Rail and to their dependents and entitle the holders to travel free on a nominated region of the NR network. Availability is largely dictated by the former British Rail Regions (Eastern, Southern, Western, London Midland).



They are also valid on a very limited number of sections of LU generally where mainline services once ran (in the dim and distant past) again aligned to an appropriate region. As part of the NR network, these Status passes are also valid on Elizabeth line services.

These are now issued on ITSO format smartcards and should work the gates at LU locations where they are valid. (Further details are included within T&R Book 6 which will be updated shortly to show availability on the Elizabeth line).

BRITRAIL PASSES

There are a range of different travel passes issued to visitors from overseas covering travel on the NR network. These are not valid on LU or the DLR but can be used for free travel on the Elizabeth line. These are increasingly being issued in digital format (as illustrated), allowing the holder to use and store their pass on their phone or mobile device. Unfortunately, although many NR stations have barcode reading equipment that can read the QR code on the digital pass, none of our stations have yet been equipped with these and staff at the LU operated Elizabeth line stations will need to check these by visual inspection.



OTHER PASSES AND TICKETS

There are also a small number of other passes that may be used on the Elizabeth line, including Residential Passes which are valid only for the journey shown on the pass. Gateline staff may also potentially see a very small number of Overseas issued rail tickets issued by European Railways to staff and customers, which may cover journeys on the Elizabeth line.

VALIDATION AT FARRINGDON

Although the long-awaited opening of the central section of the Elizabeth line generally went very well, some ticketing issues did arise at Farringdon, with customers interchanging between north / south Thameslink services and the new east to west Elizabeth line.



Although there have always been Passenger Validators provided at Farringdon for customers interchanging to/from services from outside the PAYG area and LU services, within the design for the enlarged station no provision had been made for the installation of any additional PVals for customers wanting to use the Elizabeth line to start or finish their PAYG journey.

As a result, a small number of customers leaving northbound Thameslink services and wanting to start a PAYG journey on the Elizabeth line, or finish a PAYG journey before boarding a northbound Thameslink service, have been forced to divert to the ticket hall to exit and then touch-in or finish their journey by touching out on one of the gates.

Although we generally try to avoid having PVals inside of a gateline to prevent potential fraud, arrangements are now being made for the provision of some additional PVals at Farringdon to overcome this issue for customers.



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 May 2022 04:06
To: Ask Olly
Subject: Auto correct timings

Hi Olly,

When customers touch in with a mobile device or contactless card and they decide not to travel (or there is disruption to the service), is there a time limit on when they must touch back out so that they aren't charged for a journey they didn't (or couldn't) make?

Is this auto-corrected or do they need to call customer service, and how quickly is the refund made?

Many thanks,



Hi [REDACTED]

Thank you for your email and query.

For customers who are using contactless payment, the arrangements are much less rigid than for those using Oyster, as charges are only made when all transactions for a day have been processed through the TfL back office.

This gives the opportunity for issues to be resolved before the customer is actually charged. Customers with an online account also have the opportunity to correct missed validations or incomplete journeys online. In many cases the customer will therefore not be overcharged at all.

Where there is disruption and customers opt to travel, is best advice to get them to touch-out as normal when exiting the station. This will cause a "same station exit" to occur, but if they touch-in at another station within 45 minutes that will automatically be removed when a new journey is commenced.

Regards

Olly Oyster

Hi [REDACTED]

Thank you for your email and query. The complications of the ticketing arrangements on the Elizabeth line have raised a few queries similar to yours, so we are revisiting this topic in this edition of TRU to try and clarify some of these issues.

In response to your query, Freedom Pass holders can travel on Elizabeth line services along the whole length of the line, although if alighting at stations between Reading and West Drayton, they will need to present their Freedom Pass for visual inspection as they will not work the gates at these stations.

60+ Oyster card holders are only entitled to free travel on TfL operated services within the London area so are not valid between West Drayton and Reading.

Hope this clarifies things.

Regards

Olly Oyster

From: [REDACTED]
Sent: 24 May 2022 13:32
To: Ask Olly
Subject: Freedom Pass / 60+ Pass validity on Elizabeth Line

Hi Olly,

Some Freedom pass and 60+pass holders are enquiring about the validity of their passes on Elizabeth Line stations. Could you please send information about this?

Thank you.

Regards



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From: [REDACTED]
 Sent: 23 May 2022 21:17
 To: Ask Olly
 Subject: Non UK contactless cards

Hi Olly,

We have had several tourists who have shown us their online statements which appear to show that they have been charged way over the correct amount for using their Non-UK debit/credit cards at the gates (25 euros for a single journey!).

I know that there may be some transaction charges for converting it from pounds to their local currency, but can you confirm that once the amount clears it is basically going to cost them the same as UK customers?

At the moment, I try to persuade them to purchase Oyster cards, especially if they are here for a few days because of this issue.

Regards,

CSA

Hi [REDACTED]

Thank you for your email and for highlighting your concerns regarding this issue.

We have had a couple of similar queries but none have been able to identify a particular card for us to be able to trace what transactions they have made.

Obviously for contactless transactions it isn't as easy as noting an Oyster card number, but we may be able to trace transactions if we know the time and gate a customer has used their card and what journey they were making / had made.

The initial suspicion is that the customer may have used Heathrow Express or one of the other premium rate services on which higher fares apply and which are not included in daily capping calculations?

Regards

Olly Oyster

Hi [REDACTED]

The self-service refund facility on our POMs and TVMs is designed for customers that no longer want their card and enables them to obtain a refund of their PAYG balance (up to £10) plus the deposit on older cards. As you correctly point out, the transaction results in the card being cancelled and prevents further use.

Customers that want to retain their card for future use, should be encouraged to do so, but they will not be able to get their PAYG balance refunded. Allowing a refund of just the PAYG, but leaving the card live, would potentially cause us a number of problems:

- *It would potentially encourage customers who were not leaving London but just wanted to get some cash off their card, to repeatedly top-up and then get refunds later*
- *It could potentially open up avenues for card fraud and potential money laundering activities*
- *Customers who had genuinely finished with their card would be left with a live card with a zero balance and if discarded could potentially be used by other customers*

Hope this explains some of the reasons behind the current arrangements.

Regards

Olly Oyster

From: [REDACTED]
 Sent: 18 June 2022 15:17
 To: Ask Olly
 Subject: Oyster card refunds

Hi Olly,

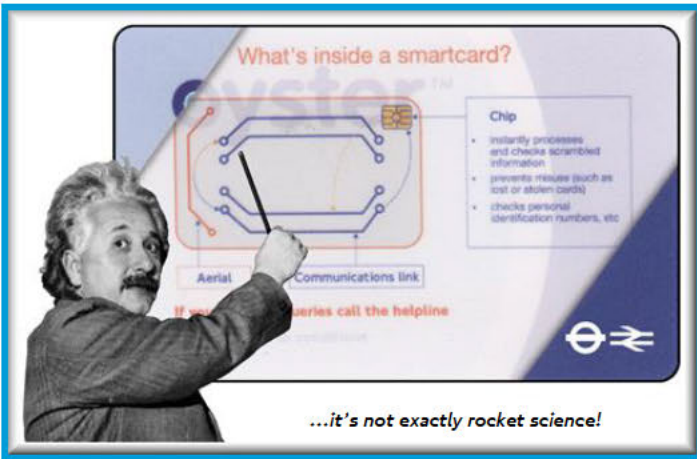
When tourists visit London for a holiday and get a refund of their Oyster card balance, why is their Oyster card cancelled?

Why can't it remain active and just be topped up on their next visit into London?

Seems like a quick way to make a fiver by cancelling their cards.

Regards

[REDACTED]



From time to time we repeat a topic that we have previously covered as an Oyster Explained feature.

This month slightly differently to normal, we revisit the subject of Weekly Capping on Oyster, that we originally covered in [TRUI34](#) in October last year, to better explain the operation of this feature.

WEEKLY CAPPING ON OYSTER REVISITED

Weekly Capping was introduced for contactless PAYG users in 2014, operating on the basis of a fixed Monday to Sunday week.

One of the key features of contactless payment, is that each journey is fed through to the TfL back-office systems, which then calculate the value of the whole day's travel.

Each day, providing the customer does not have any incomplete journeys, the cost of travel will be capped at the appropriate Daily Cap.

After End of Day, the customer is then charged one single amount covering all of their day's travel and this will be repeated through the week on each day that they use their contactless payment card / device.

The cost of each day's travel is then compared against the appropriate Weekly Cap, to ensure that between Monday and Sunday, the cost of their journeys does not exceed the Weekly Cap (which is set at the same price as the corresponding 7 Day Travelcard).

When Weekly Capping was introduced on Oyster for rail PAYG users on 27 September 2021, we were advised that the customer would continue to be charged for each journey up to the Daily Cap but each validation would now be run through the same back office system used for contactless to ensure the customer received the best value for their travel. If the customer was overcharged an automatic refund would be made to their Oyster card via the Faster Universal Load (FUL) facility.

When we first covered Weekly Capping on Oyster in [TRUI34](#), a key element of its operation was that at the end of a week, if a customer had travelled every day, they would potentially reach a point where they would pay more than the cost of the appropriate Weekly Cap, but this additional charge would then be refunded to their Oyster card.

After almost a year of Weekly Capping on Oyster, it has now become clear that all is not exactly as we explained last year and in fact in some cases the Oyster card appears to be a bit cleverer than we had been led to believe!

So, what is happening differently to what we expected?

The significant difference we have seen since Oyster Weekly Capping was launched, is that if a customer travels every day within the same set of zones and triggers a daily Cap, their spend over the Monday to Sunday week will build towards the Weekly Cap, but rather than continuing to charge the customer more than the Weekly Cap, the Oyster card will actually apply the weekly cap and not charge for further journeys that are completed within the same zones.

This is illustrated in the example on Page 13 (opposite).



WEEKLY CAP FOR OYSTER USERS

Zones 1-2	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Daily Cap	£ 7.70	£ 7.70	£ 7.70	£ 7.70	£ 7.60	£ 0.00	£0.00
Towards Weekly Cap	£ 7.70	£15.40	£23.10	£30.80	£38.40	£38.40	£38.40

In the example above, after 5 days of travelling within Zones 1&2, on the fifth day the customer will be charged 10p less than the normal Daily Cap and will then travel free providing that they stay within Zones 1&2 on the Saturday and Sunday. When the journey history for Saturday and Sunday is then viewed on a POM, the screen will show any journeys made within Zone 1&2 as being capped with a zero fare.

One of the principles of the 'best value' element of capping, is that on a daily basis, if a customer travels into a zone not covered by their cap, they will either be charged the daily cap for the larger number of zones used, or a lesser cap plus an additional charge for the journey into a different zone.

For example, a customer who has made a number of journeys by bus and within Zones 1&2 to reach the Z1&2 cap of £7.70, but then makes a single journey to a station in Zone 6 would be charged the Z1&2 cap plus a PAYG fare for Z3-6 (£7.70 + £1.90 = £9.60) rather than the Z1-6 Cap (£14.10).

Where Weekly Capping for Oyster users is slightly different than for customers using contactless, is where the customer then makes a journey into different zones than previously used and covered by their Weekly Cap.

Using the same example as above, if the customer made a return journey between Z1 and Zone 6 on the Saturday, then the Oyster user would be charged £3.50 at the end of each journey. When their journeys are then processed via the back-office system, it would assess the best value for the customer, which in this case would be the Z1-2 Weekly Cap plus two Z3-6 PAYG journeys (£38.40 + £3.90 = £42.30) rather than the £45.40 they will originally have been charged or the higher Z1-6 cap (£70.30).

In this case the customer will be due a refund of £3.10, which will be credited back to their Oyster card via FUL

Zones 1-2 plus Z1-6 trip on Saturday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Daily Cap	£ 7.70	£ 7.70	£ 7.70	£ 7.70	£ 7.60	£7.00	£0.00
Towards Weekly Cap	£ 7.70	£15.40	£23.10	£30.80	£38.40	£45.40	£45.40

KEY FEATURES OF WEEKLY CAPPING

- ▶ Journeys capped on basis of a fixed Monday – Sunday week, not a rolling 7 Day period
- ▶ Weekly Cap is equivalent to the cost of the corresponding 7 Day Travelcard
- ▶ Contactless Payment users charged retrospectively based on the actual journeys made over each day and the week
- ▶ Oyster users are charged for each individual journey up to the Daily Price Cap. Charges are the rechecked by the TfL back-office and adjustments made where charges exceed the Monday-Sunday cap.
- ▶ Any payment above the Weekly Cap will be refunded back to the Oyster card via FUL
- ▶ If journeys are entirely within the same zones, the Oyster card will cap at the end of the week and subsequent journeys will be shown with a £0.00 fare.



Please note that although the Weekly Cap will be the same price or cheaper than a 7 Day Travelcard covering the period Monday to Sunday, there will be some occasions where the customer travels every day over say Tuesday to Monday or Wednesday to Tuesday, where the Weekly Cap may not be achieved and in these cases, the customer may pay more in daily charges than if they had bought a 7 Day ticket.

PAYG however, continues to offer flexibility of only being charged for the journeys actually made up to the appropriate caps. Whereas on a season ticket, which offers unlimited travel over the period covered, there may be days where the customer does not need to travel but is still effectively charged.



Staff are reminded that they **should not** resolve any journeys more than 48 hours after they occurred as they may conflict with capping calculations already made.

REVENUE PROJECTS

THE THREAT OF SKIMMING HASN'T GONE AWAY!

[Redacted content]

[Redacted content]

Part 3 – Following on from Q2 and the £5 note theme...

Q3) ...According to 2021 Bank of England statistics, how many polymer £5 notes are in circulation?

A 205 million notes B 320 million notes

C 407 million notes D 739 million notes

Ticketing & Revenue

T&R
Trivia

Answers on Page 19

MFM NOTE HANDLER UNIT (NHU) UPGRADE ...Update

Further to our last update in [TRUI38](#), an initial batch of 10 MFMs fitted with the new Pay Complete Bank Note Acceptor (BNA) units were upgraded by fitting additional note recycler modules, to convert them from BNA devices to Bank Note Recycler (BNR) devices.

Following this, we saw an improvement in device performance at these sites and also a reduction in the level of note jams and NHU faults.

Following on from this pilot, Cubic were quite keen to increase the number of MFMs working as BNR devices and we then agreed for a further 10 MFMs to be upgraded during the week commencing 20 June.

Like the initial batch of MFMs, these 10 devices were selected as they represented some of the busier sites that had been fitted with BNAs, that might benefit from the ability to dispense notes as change and for refunds and also included some devices which had previously suffered a high level of note unit faults.

Following the upgrade of the first 10 devices, the T&R team have recently sent a survey to staff at the affected stations to gather further feedback on this change. Unfortunately, this didn't generate a huge number of responses or much detail on the improvement.

Since the pilot installations took place, we have identified that at some of these sites, the lower volume of notes being dispensed has resulted in the recyclers eventually becoming full. This then may result in the device basically reverting to BNA mode, with all notes being sent straight to the note vault and potentially risking an increase in the number of jams. At a couple of sites, this then resulted in some of the reliability benefits of installing a BNR unit being eroded.

To counter this, we have advised these stations to dump the recyclers ahead of the station's weekly cash collection, so that money can continue to be banked in a timely manner. In the longer term, Cubic have been asked to investigate the possibility of a software change to automatically move some of the notes to the vault at end of day, once the recyclers have reached a certain trigger level. This would then avoid the need for any staff intervention.

We have recently undertaken a further review, both of devices that had previously been fitted with the Pay Complete BNA units and the MFMs that are still working with the previous design of note acceptor, to identify which of these might also be candidates for fitting a note recycler unit.

With components that are already in stock, Cubic scheduled the upgrade of a further 9 MFMs from BNA to BNR on Monday 04 July and Tuesday 05 July.

Further BNR kits will potentially allow us to upgrade a further batch of MFMs that were previously fitted with the new Pay Complete NHUs, to move them from BNA units to have a Pay Complete BNR unit.

Following the improvement in device performance through the deployment of a larger number of recycler units, Cubic resumed the programme of replacing the older style BNA units with the new Pay Complete NHUs in mid-July. The programme will continue through August at a rate of around 4 devices per night and will hopefully be completed by early September.

Although the BNR has the advantage of giving notes as change and for customer refunds and reducing the requirement to re-float the MFM with coins, at low cash volume stations it would mean that larger amounts of cash are potentially sitting in devices, rather than being banked as now. We therefore estimate that around half of MFMs will only be fitted with the BNA unit.

Once all MFMs have been fitted with the new Pay Complete note handlers, it will be possible for Cubic to remotely upgrade all devices with a new bill set to stop devices accepting the old paper £20 notes once they cease to be legal tender after 30 September. Cash handling Devices will continue to have the facility to accept paper £20 and £50 notes until they are upgraded later in the year, as it will still be possible for us to bank these notes.



REVENUE PROJECTS

GATE UPGRADES

WAG UPGRADE

Cubic have recently completed the deployment of new 'ruggedised' WAG motors, along with refurbished paddle shafts and new light weight paddles to 30 WAGs that have previously shown high rates of motor related faults.

The aim of this short programme being to try to improve the performance of these devices. This followed on from an initial trial of the lightweight paddles at several stations and an initial pilot of the WAG motors at 3 stations where there had been a high level of WAGS.

Following on from this, it is planned to deploy a further batch of ruggedised WAG motors next year, to equip all of our other WAGs with the improved version of motor. However, these further installations are not likely to be equipped with the new style paddles.



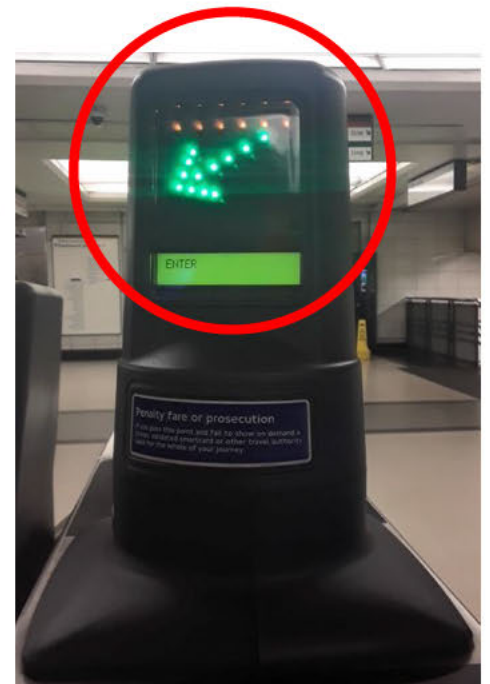
PNEUMATIC GATE BLU MODIFICATION

Following on from the completion of the work on the WAGs, Cubic have turned their attention to the older pneumatic gates, at stations mainly within Zone 1. Following an extended Vanguard, Cubic have recently commenced the rollout of a modification to the light beams that monitor customer movements through each walkway. This programme commenced with the three gatelines at Baker Street which were completed at the end of July and will hopefully help reduce instances of failures of the beam logic unit. Initial progress was hampered by the extremely hot weather, which result in the Cubic maintenance engineers having to be utilised to address other faults.

PNEUMATIC GATE POD DISPLAY

Further to our previous update in [TRUI38](#), since the completion of the rollout of the new Gate POD to all of our pneumatic gates, concern had been raised by both Revenue Control staff and station colleagues, about the lack of information and ticket monitoring indications on the rear of gate PODs on single direction Pneumatic gates at various central London stations.

The issue arose due to a lack of cabling in single direction entry gates which only came to light when the new design of POD was rolled out and the back of the POD remained blank. Following installation of additional comms cables an LCP software upgrade was required to display the missing information. However, attempts to Vanguard this change at 3 LU sites proved unsuccessful and as previously reported, we ended up with incorrect information being displayed on the front of the POD resulting in the software having to be reverted. A couple of further unsuccessful attempts were then made by Cubic, to try and overcome this issue without success.



The good news is that as we were getting ready to finalise this edition of TRU, we were advised that Cubic had identified the cause of the problem as being due to an incorrect line of code within the LCP software. This has now been corrected and following the necessary testing that needs to be undertaken, we were able to deploy the updated software initially to Bank (Monument) and in subsequent nights to Victoria (District) and Tower Hill. These were the 3 Vanguard sites previously selected, in early July.

The latest software release also addresses a separate issue which resulted in errors being reported on pneumatic gates following an emergency open test or activation. The current Vanguard has therefore been extended to cover three further locations. The additional sites being Liverpool Street (Central & C&H gatelines), Elephant & Castle and Waterloo (Main & Auxiliary gatelines).

Providing no issues are identified, we would then look to commence the rollout of the software to other stations from the end of August.

GATE RAMPS

A number of years ago, we had two separate upgrade programmes to replace the ramps on E1 and E2 type gates ([TRU71](#), [TRU73](#), [TRU74](#) and [TRU78](#)).

The original ramps installed when the first ramped E1 gates were installed on LU, were rubber coated and after a period of use were prone to being damaged by customers luggage and other objects being dragged across them or to bubble or become discoloured.

The replacement ramps implemented initially for E1 gates and subsequently deployed to stations with E2 gates and WAGs are made of metal checker plate, a much more durable material, with the pattern on the ramps providing resistance against customers slipping on the ramp.

Following some initial reports from a couple of locations, of ramps becoming slippery when wet, Cubic undertook a number of site visits to investigate the issue, focussing on locations where gates were close to the street and where there was a higher risk of water being carried onto the ramp on customers shoes, when it was wet outside.



This identified that some of the metal ramps that had been installed longest of that had seen very heavy customer throughput, are showing some signs of wear, which probably results in them being less slip resistant.

Cubic are now planning a programme of ramp replacements, which will initially see the purchase of an additional batch of gate and WAG ramps, to form a buffer stock.

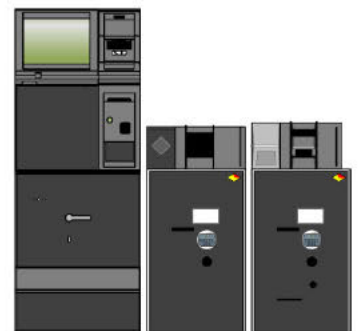
These ramps will then be utilised to replace worn ramps at stations, which will then be re-profiled to increase their slip resistance, before being re-installed at other stations in place of other worn ramps, which will in turn be refurbished and reinstalled elsewhere.

CHD ISSUES

In recent weeks we have seen a number of Cash Handling Device (CHD) faults take longer to fix than normal. This has been due to a combination of factors.

Pay Complete who maintain our devices have had to replace several engineers who have left and have only just been able to successfully recruit some new staff to bring their team back to full strength. With a small team, the loss of one engineer will have a considerable impact on coverage and response times. Now that they have a full complement of engineers, hopefully general response times will return to nearer what we had pre-pandemic.

We have also recently seen a steady trickle of further failures of a unit within the CHD note units which moves and processes the notes that are deposited. This is caused by deterioration of the rubber belts in the unit and to date, Pay Complete have so far replaced 114 of these modules, with a further 6 devices currently awaiting replacements. Prior to the pandemic they had only replaced about 6 modules in the first 4 years of the contract. Agreement between TfL and Pay Complete has resulted in additional spares being purchased, but even with steady deliveries of new units, we have at times struggled to keep up with demand.



At present, complications with shipping units from the manufacturers in Italy, together with their factory being closed for annual holidays, means that we have again hit a situation where we have temporarily run out of spares. A new consignment was due to be delivered as this edition of TRU was being published and this should hopefully allow the devices that are awaiting replacement units, to be returned to full operation shortly.

PayComplete

REVENUE PROJECTS

POM UPGRADES

MFM SOFTWARE UPGRADE

In addition to the programme to replace the last of the older style Note Handling Units (NHUs) on our MFMs, as covered in the article on Page 15, a further upgrade of device software is scheduled to be deployed shortly.

This new software release is to resolve an issue that has prevented the device from correctly checking the status of an Oyster card before a refund can be processed. This has potentially resulted in a number of refunds being allowed, that previously would have been blocked. This has arisen following a Microsoft software upgrade which resulted in a change in security certification.

This wasn't highlighted to Cubic at the time and as a result the MFM software is currently hard coded with details of the previous certificate, which is now out of date. The new version of software contains the most up to date certificate details and means that devices will be able to access the TfL back-office systems to check on a card before making a refund.

The new software was originally due to be Vanguarded on 31 devices in the table below in early August, but at the time of going to print with this edition of TRU, implementation had been pushed back to the night of Thursday 11 August.

Stations and MFM Device Number						KINGS CROSS	(Western)	33
LIVERPOOL STREET	(C&H)	30	KINGS CROSS	(Northern)	33	34		
	(Central)	36			34	VICTORIA (North)		
	(Main)	31			35	30		
		32		30	BAKER STREET (Bakerloo)			
		33		31	37			
		34		32	32			
EUSTON		30		(Tubes)	HEATHROW T2&3	(Remote)	30	
		31					32	32
		32					33	33
		33					34	31
							30	(Main)
			32	35				

Once we are satisfied that the new software has addressed the issue it is intended to fix and has not caused any adverse impact elsewhere, it is then planned for Cubic to deploy the new software to the remaining MFMs. This will initially be at a rate of 20 devices per night but will then be accelerated to complete 50 MFMs per night. This should see the whole programme completed in around 7 nights.

A similar upgrade is also required for TVMs, but the deployment of this together with other TVM software changes has been deferred until after the next fares revision, which is due to take place on Sunday 04 September. More on that in TRU140.

BANKCARD SOFTWARE UPGRADE

A further upgrade which will affect all four types of POM, concerns an updated version of the software that the Chip & PIN units on devices use to process bankcard payments and aims to address two long running issues which have caused certain cards to be rejected.

Deployment of the software has been delayed a number of times to ensure both of the know issues had been successfully resolved.

The original plan was to deploy the software to a selection of devices at the stations listed RIGHT on the night of Thursday 28 July. However, this was stopped awaiting confirmation that Cubic had gone through the correct assurance process.

The software is due to be Vanguarded from 16 August and as with the MFM upgrade above, once we are satisfied a decision will then be made on the deployment to other POMs across the network.



BAKER STREET (Bakerloo)
BAKER STREET (Met)
BANK (Bloomberg)
CANARY WHARF (East)
CANNING TOWN
EUSTON SQUARE (Wellcome)
HAMMERSMITH D&P (Main)
HAMMERSMITH D&P (South)
STRATFORD (East)
STRATFORD (North)
VICTORIA (District)
WHITECHAPEL

NEW REVENUE INSPECTION DEVICE (RID2)

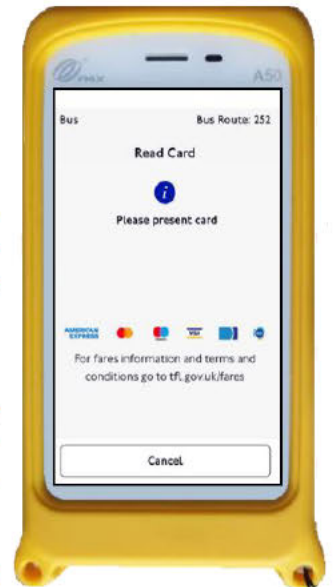
A Vanguard of the new Revenue Inspection Device (RID2) was due to start on Monday 04 July using several devices that are being provided for LU Revenue Control staff to use on the network for a period of approximately 4 weeks.

Unfortunately following delivery of the new devices, some initial testing was undertaken and revealed some issues which we need Cubic to resolve before the Vanguard can commence. This is proving slightly more difficult to resolve than at first thought.

The issue resolves around the handling of certain contactless payment transactions, which Cubic were unable to fully test in their test environment due to a limited range of test cards. Fortunately, in the first stages of pre-Vanguard testing of the new RID with live transactions, it enabled TfL to flag up the issues before we launched into the actual Vanguard with our Revenue Control team.

We are hoping that a fix will be available shortly, which will then hopefully allow the Vanguard to commence, around Monday 22 August, over a month later than was originally planned.

Following the 4-week Vanguard on LU and other TfL modes, the units will then be withdrawn so that they can be used for a similar 4-week Vanguard for NR Revenue Protection staff. The original programme had allowed 12 weeks for the Vanguard to take place, but this has now been reduced to 8 weeks in total, which should be sufficient to identify any issues.



RID 2 IN PROTECTIVE CASE



CURRENT RID

Rollout of the new RID was originally scheduled for September, but this is now likely to be delayed until early October. There was obviously some pressure given that the current units are coming to the end of their operational life, to try and achieve the original date.

However, we are very reluctant to shorten the Vanguard period too much. Previous experience with other projects, has shown us that shortening the Vanguard period can often not give sufficient time for issues to be identified, which have then subsequently emerged at a later date, during or after rollout has taken place.

The eventual rollout of RID2 and will involve a further short period of dual running where both the current RID and RID2 devices are in use, whilst the process of issuing the new equipment and withdrawing the old devices take place. At the completion of this transition period the existing RIDs will no longer be useable.

Despite the delay to the rollout of the new devices, the current RID will continue to be supported by Cubic and the replacement of defective units will be managed by the managed by the T&R Team at Pier Walk.



ANSWERS TO T&R TRIVIA

How did you do?

Pt. 1	A	Royal Wedding – April 2011	D	Diamond Jubilee – May 2012	C	LU150 – December 2012	B	Year of the Bus – March 2014
Pt. 2	C	Duke of Wellington – November 1971	A	George Stephenson – June 1990	D	Elizabeth Fry – May 2002	B	Winston Churchill – September 2016
Pt. 3	C	407 million notes – that's £2,035,000,000.00						

...AND FINALLY!

IN BAGS OF TROUBLE!

Over the last couple of months, we have received a number of enquiries from different Area teams and from our colleagues at Ashfield House, concerning outstanding orders for multi-safe or V&C bags.

Orders for these, like other T&R consumables are placed through the consumables order form on Mi-apps and are then automatically routed to the appropriate person to fulfil the order or submit an order via SAP. In the case of bag orders, these are routed to the relevant local Admin teams to raise a SAP order with Coveris the current supplier of these items.



Recent investigations into these delay in the supply of security bags, were initially based on feedback that orders had been blocked as the supplier was outstanding payment on a number of invoices. However, internal enquiries with the Accounts Payable team seemed to indicate that this might not be the case and that a number of orders may possibly have fallen down a bit of a 'black hole', possibly as a result of a change in processing arrangements introduced during the pandemic.

The final twist in the story, was that it was subsequently confirmed, that there had not been any change to processing arrangements, but there were actually a small number of invoices totalling around £3.5k, that were outstanding payment for some reason. As a result, the suppliers had held fire on fulfilling further orders.

The outstanding invoices have now been identified by the accounts payable team and are to be fast tracked for payment. Once they have been cleared, the procurement team will check how many outstanding purchase orders are with the suppliers and then fast track these so that stations receive what they have ordered.

An internal investigation continues to find out why this blockage in the ordering process occurred and why these invoices were not paid.

BULK COIN BAGS

A further bag related issue we are currently dealing with, is that the previous source of bulk coin bags was Santander and since the TfL banking contract was moved to HSBC, further supplies can no longer be obtained from them. Fortunately when we last did an audit of stocks of bulk coin bags across the LU network, we found we had many years' worth of each denomination to keep us going.

Since the return to cash acceptance at LU stations last summer, we have seen cash volumes slowly recovering and as a result the consumption of bags has increased. We still have a lot of stock dispersed between stations, but not necessarily in the right places. We are therefore intercepting orders that are submitted via Mi-apps to direct the stations requiring particular bags to nearby stations which have large surpluses. Linked to this we are undertaking a further stock audit to establish the current volume of each type of bag at each station.

Once we have established the current stocks and consumption rates we will be arranging for an initial batch of new bulk coin bags to be produced via HSBC, so that we can test these at various locations. This will eventually lead to the supply of this new range of bags to be supplied to satisfy future orders. Until such time, please continue to use the current barcoded Santander bags for any bulk coin you need to remit.

LOOKING AHEAD TO TRUI40

A bit like the traditional saying about buses; after a long wait for this edition of TRU, the schedule says another one will be along shortly!

TRUI40 is planned to be published at the end of August and is likely to be a slimline edition, mainly aimed at providing an update on changes that are scheduled for the forthcoming September Fares Revision.

We are also planning to include:

- Latest T&R news items
- A further Oyster Explained feature
- More of your queries to Ask Olly
- Updates on many of the current projects covered in this edition
- Plus a selection of other regular features.

