

INSIDE THIS EDITION

IN THE NEWS

Pages 1-6 → The latest T&R news
stories

ASK OLLY!
Pages 8-9 → A further selection of

your letters answered

SPECIAL FEATURES

Page 7, 10-13 → Fraud survey
results → Device Monitoring →
Spring Clean → Polymer notes

PROJECT UPDATES

Pages 14-19 → CHD Update →

Gate LCP progress → POM

Upgrades →

AND FINALLY
Page 20 > POM Ticket range >
Looking ahead to TRU 93

TRIVIA - Pages 2, 3 & 17 Answers on Page 19

Night Tube is coming!



The big news story since the last edition of TRU was the announcement on Monday 23 May that the long awaited start of regular through the night services on London Underground on Friday and Saturday nights would begin on Friday 19 August 2016.



Initially the 'Night Tube' services will be restricted to the Central and Victoria lines, but services are scheduled to be introduced on the Northern, Piccadilly and Jubilee lines in two further phases this autumn.

The 24 hour tube services were originally due to start in September 2015, to coincide with London hosting the Rugby Union World Cup, but were postponed and have subsequently been delayed until negotiations between LU and the Trade Unions were completed.

The ticketing changes required to support the operation of through the night services at weekends and to cope with journeys that span the 04.30 End of Day, were completed last spring. We featured the changes and how our ticketing system would cope with customers travelling on Night Tube services, in several editions of TRU last year.

Night Tube articles TRU77 TRU84 TRU85 TRU86

TRU91

Given the time that has now elapsed and that over the last year many new staff will have joined the organisation, we are planning to re-run our main features on the ticketing elements of Night Tube in the next edition (TRU93) in July.

KEY STORIES INSIDE

Page 2 MAY FARES REVISION

Our traditional look back to the recent fares revision to see what went well and what didn't go so well.

Page 4 COLLECTION CHANGES

We outline proposals to stop the process of using Uncounted bags and the current annual review of cash collection frequencies.

Page 5 DFID BOOST FOR OYSTER DONATION SCHEME

We report on the money raised during a three month initiative where DfID matched the value of Oyster cards donated by customers and how our nominated charity *Railway Children* will be putting this money to good use.

Pages 7 FRAUD SURVEY RESULTS

We bring you the recently published results of the last On Train Fraud Survey, which was conducted in February.

Page 10 DEVICE MONITORING

In a Special Feature, we update you on the introduction of the new app to monitor and report defects on POMs, including a brief Frequently Asked Questions & Answers summary.

Also inside this month.....

Page 12	Part II of our Spring Clean feature This month we look at POMs
Page 13	Part II of our feature on the Introduction of Polymer Notes This month's feature focuses on the various security features incorporated into the new notes.
Page 18	POM Upgrades We bring you an update on some changes to the forthcoming programmes and the information published in TRU91



Y FORES REVISION REVIEW

As we reported in TRU91, the May Fares Revision on Sunday 15 May was a fairly low key event. The recent London Mayoral election meaning that there were no major changes being implemented.





What went well? 📹



The actual implementation went exceedingly smoothly, with few issues on the day. Only 4 devices across London failed to switch tables as expected and required a Cubic engineer to attend. These were AFMs at Lancaster Gate and Totteridge & Whetstone and 2 devices at Heathrow Terminal 5 with all resolved before midday.

As a result the freeze on basedata and other changes was quickly lifted on Tuesday 17 May. Unfortunately, although we thought all had gone well, a few issues surfaced later in the week.



What didn't go so well?



Probably the main issue to be discovered following the fares revision affected the newly reopened Lea Bridge station (as featured in TRU91).



Although not strictly related to fares revision changes, it was quickly discovered that due to a couple of oversights, the station had not been correctly set up for the acceptance of ITSO format products.

Oyster and contactless payment customers were not affected. The appropriate base data to resolve the issue was subsequently deployed by Cubic.

By Thursday 19 May, feedback from customers highlighted that fares for a number of different journeys involving Zone 2-4 Travelcard holders travelling from Richmond via Willesden Junction to a number of LOROL destinations within Z2 were incurring an additional PAYG charge as if the customer had travelled via Zone 5. As a short term fix Station Aliasing was applied to correctly charge stations on a Z2-4 basis, until the fare tables could be corrected.

A second issue affected PAYG customers travelling from St Pancras International to Kentish Town and a number of other stations, who were incorrectly overcharged fares based on a Zone 1-9 journey. Unfortunately there was insufficient time to set up automatic refunds for affected customers before the issue was corrected by the loading of new fare tables.

Any affected customers should therefore be advised to ring or contact the Customer Contact Centre or go online to request a refund of any fares, where they believe they have been overcharged.

Both of the above issues were resolved by the loading of revised fares tables which took effect from Sunday 22 May 2016.

Part I - Our fares revision feedback item above features an update on an issue affecting ITSO card acceptance. So linked to this, our first Trivia challenge this month is...



QI)

When were ITSO cards first accepted for travel on LU services?

15 November 2013 06 August 2014 02 January 2016 They are only valid on NR services

Answers on Page 19





OLD OYSTER STOCK

Relocation of cupboards and equipment following the ticket office closure programme seems to have thrown up a lot of old stock, which had possibly previously been buried in the back of a drawer or cupboard. We have recently seen the re-emergence of several multi-safe bags from a batch where numbers had been incorrectly printed and most of which we had previously removed from stations.



We have also seen a number of stations issuing Oyster cards from their POMs which were from the previous Mifare card range, rather than the current Desfire format of card.

Some of this older stock was supplied in small 'blister packs' of 25 cards, rather than in larger boxes as they are now supplied.

The current Desfire format cards can be easily identified by a white D on a blue square, which is printed in the bottom left hand corner on the back of the card (as illustrated at the top of the page).

Please check any stock you have on hand to ensure that all unissued Oyster stock is of the current Desfire range. If you do find any of the older Oyster card stock, please advise of the T&R team as soon as possible so that we can arrange for their collection.



Just to confirm that cards from the previous format are still useable if customers already have them, but we really want to avoid pushing out further examples onto the network, particularly as they may have been sitting around for 5 or 6 years.

We are planning to migrate any remaining Mifare card holders onto the Desfire format of card later this year, which will also include a large number of Staff Oyster card holders. This will not be an easy task, as the volumes of cards are still quite large, potentially around 4 million cards, of which about 3 million are not registered.

Many of these are only used occasionally and we suspect that these include a large number of cards that may have been lost. The volume is likely to also include many customers who may have 3 or 4 spare cards they may only use for family and friends when they visit London. One major problem that this presents, is that as we don't know who currently has these cards, we will not be able to write or email the holders to advise them to change their card.



Further details of this card change will be provided in future editions of TRU, once the arrangements and timescales become clearer.

In the meantime, anything we can do to reduce the number of these older Mifare cards that are in circulation, will make this task easier later on.

Part 2 – Below are 5 clues to a station Olly has visited this month. Guess the station after the first clue and award yourself 5 points, 4 points if you require the second clue and so on until after the 5th and last clue you get just 1 point.



If you still haven't guessed after all 5 clues then it is "Nil Point".



Ans			1	D		0
Ans	swe	rs (on I	rae	e i	7

	Points	I'm at a station which
3	5	is in Zone 2 and used to be a terminus of an Underground line
)	4	has always been served by 2 LU lines when 1 closed, another opened
	3	is a major interchange between tube and other modes
	2	is regularly busy after nearby events football, concerts, festivals etc.
	- 1	is the busiest LU station that has neither lifts nor escalators.



END OF THE ROAD FOR UNCOUNTED BAGS



With more than half of our stations now equipped with Cash Handling Devices and all notes processed at other sites being counted when they are removed from the MFM, a decision has been taken that from Sunday 31



July 2016, we will no longer prepare an Uncounted bag at the end of each shift.

From this date, any money remitted must be in a Counted bag.

The change will be incorporated into a revised edition of T&R Book 4 when this is reprinted later in the year, probably to coincide with the September Fares Revision.

CASH COLLECTION REVIEW

The annual review of cash collection schedules is currently underway, to ensure the frequency if collections is on line with the current cash take at each site.

An initial consultation with Area Managers and Customer Service Managers has taken place and discussions are currently being finalised with G4S to ensure any scheduling changes they need are taken on board. The final proposals will then be circulated to each area, prior to implementation, which is currently scheduled for Sunday 31July.





At present it looks as if the new schedule will see an overall reduction of around 85 collections per week. This reflects a reduction of around 20% and is part of an ongoing trend over the last few years, as the percentage of payments made in cash falls.

There will be some changes of collection days, since G4S have highlighted that they are unable to schedule recovery collections on Mondays.

As a result we will be adjusting the collection days at some stations with weekly or fortnightly collections to ensure that a recovery collection can be arranged, should it be required.

RECOVERY COLLECTIONS UNDERWAY

After a fairly long wait, the process for G4S to make an automatic recovery collection in the event of a missed cash collection at stations with weekly or fortnightly collections is now fully operational. This means that if for any reason a collection at one of these stations is missed, G4S will automatically reschedule the collection for the predetermined "recovery collection window".



The recovery window is generally set 48 hours after the scheduled collection, but we have identified an issue with stations that have Friday and Saturday collections, as there is insufficient time for G4S to schedule the recovery collection if it falls on a Monday.

For this reason some of these stations will see a change to their collection day when the new schedules are introduced on Sunday 31 July.



One important reminder for station staff, Customer Service Supervisors and CSMs is that whenever there is a missed or partial collection a missed collection notification must be completed via the İPad.

At stations with weekly or fortnightly collections an additional notification must also be completed on the day of the recovery collection to confirm whether the recovery collection has been completed or not.

Latest statistics show a high percentage of stations are still failing to complete a notification in the event of a missed collection.





DFID BOOST OYSTER CARD DONATION TOTAL

As reported in TRU's 86 and 87, during the three month period between 23 October 2015 and 22 January 2016, the proceeds of Oyster cards donated via our Oyster Charity boxes at Heathrow T123 and Heathrow T4, Kings Cross and Liverpool Street were matched by the Department for International Development (DfID).

During the period the value of Oyster cards donated by customers was as follows:



Station	Amount
HEATHROW	£4,914.41
KINGS CROSS	£3,150.00
LIVERPOOL STREET	£3,336.33
Oyster Charity Total	£11,400.74
Matched by DfID	£11,400.74
Grand Total	£22,801.00



A cheque for £11,400.74 was presented to Dave Ellis of Railway Children on 30 March, enabling the charity to recoup a similar amount from DfID. The scheme therefore generated a total of £22,801 during the 3 months the scheme was running £11,400.74 from LU customers Oyster cards and £11,400.74 from DfID).

This formed our contribution to a much larger 'If I grow up' fundraising initiative by Railway Children, who in the three months the donation matching scheme was running, raised a total of £589,000, which with the DfID donation added to it, raised a total of £1.178,000 to help nearly 3,000 vulnerable children living on the streets in East Africa.



Dave Ellis from the Railway Children outlined how the money raised will be spent:

"The money raised will secure our essential work in East Africa for at least another two years and help us reach more desperately vulnerable children in the UK and India too. The project funded by the campaign is based in two cities in East Africa - Kitale in Kenya and Mwanza in Tanzania — where we've already worked for several years.

Over the 2 years of the project, our street workers and youth workers will contact over 2,000 children and youth on the streets and provide them with basic support such as medical care, out-of-school education and activities and a safe place to wash and spend time.

We'll also return nearly 500 children to their families — with intensive family support where it's needed. We've developed this therapeutic approach because most children on the streets have experienced violence, abuse and loss in their lives and they need more than a ticket home. The percentage of children who do not run away a second time after they've returned home has risen from 50% to over 84% since we started supporting the whole family. As well as counselling we provide families with help starting up a small business, new farming skills and support getting their children back into school.

For some of the older youth on the streets, going home isn't an option so our youth workers will support them to make their lives safer, generate an income and rent lodgings. We'll also provide specific help to girls in the groups — such as reproductive healthcare and ante-natal care.

We're working with communities and governments to make children on the streets safer in the long term. The project in East Africa will train at least 120 people from local government and business to understand the problems street children face and how to help them!



FAILED CARD PORTAL

TRU has carried a number of recent features on new ticketing apps for station staff and the switch of a number of intranet forms onto the IPad. On Pages 10 and 11 this month we provide a further update on the development of a device monitoring app.

One further application currently in development which hasn't warranted as much attention in previous editions is the Failed Card Portal. The launch if this was deferred from April until later in the summer, as we believed there was a danger of swamping staff who may be already adapting to new job roles, new locations and a multitude of other changes. The delay also gave the opportunity of making further changes to make the app more useable before launch.





Hopefully you want see any that are this level of 'failed'

The tool should assist in the situation where we have to replace a failed card for a customer. Although in the vast majority of situations the advice to the customer should be to buy a new card and link their old and new cards to transfer the PAYG balance and any products to the new card.

The Failed Card Portal aims to allow station staff access to Oyster card details when they have to replace a failed card and will hopefully reduce dependence on the current Staff Oyster Helpline (SOHL) facility.

However it has recently become apparent that the new tool which will give limited access to customer data will require all users to undertake a short online training module on Data Privacy. All staff who hold a TSID card will need to complete this module before they can be given access to the new app and Oyster card data.

From Friday 01 July, all delegates attending TMS assessments at Ashfield House will be encouraged to undertake the e-learning module at the end if their assessment. This should hopefully mean we can approve their access ready for launch of the new app later this summer. Existing TSID card holders have the opportunity of completing the data privacy module over the next couple of months. It can be accessed via the link below: https://tfl.kallidus.com/TFL/LMS/SCORMPackages/65c5c69b-a46b-44c9-b248-8b42fcac9f32/index.htm



The module needs to be undertaken annually to maintain access to data and we are urgently looking at how best this can be achieved.

We currently have quite a large backlog of new TSID card holders waiting to be added to the SOHL database. The volumes of staff currently undertaking TMS and staff leaving on VS, who need to be removed from the database, have delayed updating the current user list. Now that implementation of the failed card portal has been delayed we will be looking to update the SOHL list in the next few weeks.

GROUP DAY TRAVELCARDS

Since Monday 23 May 2016, customers have been able to purchase Adult and Child rate Group Day Travelcards for Zones 1-6 online from the TfL Visitor Shop.

The customer purchases the tickets for a date of their choice which will be then sent by post to the customer's home address.

Tickets are from pre-encoded stock with the date of validity hand-stamped on the face. Unlike normal Day Travelcards the following information is not shown on this type of ticket;

- date & time of issue,
- issuing device number
- price







Group Day Travelcards can be purchased for groups of 10 or more and customers using Group Day Travelcards must travel together at all times in minimum groups of 10. Group Day Travelcards are also available from POMs.

TICKET IRREGULARITY SURVEY

The results of the February 2016 On-train Ticket Irregularity Survey have been published by the TfL Transport Strategy team. This survey was conducted throughout that month by RCIs, following set criteria for each line. Customers were surveyed on LU trains 7 days per week; from the first train out of a depot to the last one back in at night. In total 49,463 customers were checked, of which 2.3% had a ticket irregularity of one form or another.



In a slight change from our usual report, this time we have provided a detailed line by line breakdown of the number of customers surveyed in February and listed the number of offences encountered. It is worth pointing out that although there is recognised fraudulent travel across the network, over 97% of customers checked were in possession of a valid ticket, Oyster card or contactless payment for the journey they were making.

Survey Date	On train irregularity	Estimated revenue loss
February 2015	2.33%	1.34%
May 2015	2.14%	1.22%
November 2015	2.80%	1.68%
FEBRUARY 2016	2.30%	1.31%
12 month average	2.41%	1.40%

Line	No	Runners	No Ticket	Out of Area (Magnetic)	Adult on Child ticket	PAYG not validated	Out of Area (Oyster)	Other	Total	Invalid
BAKERLOO	4,363	4	43	10	9	20	45	23	155	2.82%
CENTRAL	4,807	2	42	- 11	19	45	75	25	219	3.41%
CIRCLE	2,260	3	10	1	7	6	14	4	45	1.46%
DISTRICT	8,655	4	63	2	- 11	48	12	3	143	1.65%
HAMM & CITY	2,685	3	19	4	7	21	22	4	80	2.27%
JUBILEE	4,394	0	12	4	8	17	11	5	57	1.16%
METROPOLITAN	4,430	3	47	- 11	28	36	84	8	219	3.52%
NORTHERN	6,801	4	48	20	13	44	77	3	209	2.15%
PICCADILLY	7,626	2	34	6	20	32	89	5	189	1.55%
VICTORIA	4,795	1	36	29	20	30	50	1	167	2.86%

NEW REVENUE CONTROL INSPECTOR BADGES

From Friday 01 July 2016, Revenue Control Inspectors (RCIs) will start to be issued with new and updated credentials. This will include an updated RCI Plate (circular badge) and new Photo Identification card (as shown on the right).

The RCI Plate is Silver, with the title 'Official', the Red and Blue Underground Roundel in the centre, and a 3 digit RCI Badge number. Revenue Managers will have the same design badge, but in Gold and with a 2 digit number.

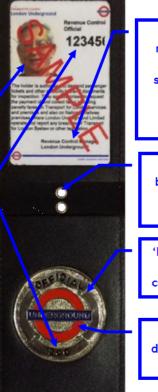
RCI Photo ID

RCI Badge number

There are a couple of major differences with the new design when compared with the old badge;

- In a break from the traditional wallet-style, the new badge is presented in 'portrait' view and folds over to allow officials to wear the badge on a lanyard.
- There is no longer a requirement to bear the name of the Chief Operating Officer on the photo ID section, which some passengers had wrongly assumed was the name of the RCI.

Credentials for Internal Revenue officials will remain as currently shown in T&R Book 1 - Security.



No longer required to bear signature of Chief Operating Officer

Allows badge to be worn on a lanyard

'Plate' design replaces current shield

More distinctive LU roundel





askolly@tube.tfl.gov.uk

From:

Sent: 13 June 2016 21:24

To: Ask Olly

Subject: Re: Platform ticket

Dear Olly,

The other day at Highbury & Islington, we had a customer who wanted to accompany someone down to the platform. Previously we would have issued them a Platform ticket from the TOM, but we are now unable to do this as the TOM does not have a THU.

When we looked on the MFM, we were unable to find Platform Ticket as either a ticket type or work out how the customer could buy one.

Can you help?

Regards



Thank you for your email and query, which is likely to be of interest to staff at other stations.

To buy a platform ticket from a POM, the customer now has to select the "Select Destination" button.

Having done so, they then have two possible routes;

- Type in "PL" and the screen should then show Platform Ticket as an option
- Type in the name of the station you are buying the ticket from, e.g. Highbury & Islington. The screen will then show Platform Ticket within the ticket options

The facility on the POM is not available if a member of staff is signed on to the TOM.

Regards

Olly Oyster



Thank you for your email and query.

This facility on the Staff screens on the POMs is not currently available to any staff.

There have recently been some discussions about a potential trial, but to date no scenarios have been identified where it could be of value. There is also a concern that should the facility be introduced, it may be used in preference to the correct channels for dealing with an issue.

Regards

rom:

Sent: 06 June 2016 07:29

To: Ask Olly

Subject: Goodwill Payments

Hi Olly,

I was wondering what the status was with the addition of Goodwill Payments on the Staff Oyster screens on the POMs?

My previous role prior to Fit for the Future was Station Supervisor and I am now CSM but this facility has never been available to me.

Thank you.

Regards,





askolly@tube.tfl.gov.uk

From:

Sent: 11 June 2016 13:25

To: Ask Olly

Subject: Failed Oyster refund deposit

Hi Olly,

Is it true that an Oyster card that is replaced in a station (on a POM) will have no deposit on the replacement card?

If so, was/is this the case with cards replaced on the TOM?

Regards



Thanks for your email.

The procedures are as set out in the T&R Books. Any surrendered or cancelled cards have to be returned to Cubic via the Surrendered Card multi-safe bag, which is remitted as part of the stations cash collection.

Regards

Olly Oyster

From: Sent: 17 May 2016 09:22

To: Ask Olly Subject: **Child tickets**

Hi Olly,

I have come across tourists who have not been advised that children under I I travel for free with them and who have been under the assumption that because the POMS give you the option to buy a child ticket from 5-10 year olds, that they must purchase tickets for them. I have never, not to say that it doesn't occur, seen a child of these ages buying themselves a ticket for travel, or a parent buying said ticket, to let their child travel unaccompanied. Is this option really even needed on the POMS, as all it seems to do is cause confusion for tourists?

Thanks.



Thank you for your email.

The replacement card should show a £5 card deposit, regardless of whether the original card had a £0, £3 or £5 deposit. This was exactly the same way in which the failed card process on the TOM worked.

The only exception to this would be if the card was replaced using the "Copy card" facility, where the replacement card is an exact replacement of the original and would mirror whatever deposit was shown on the original card.

Regards

Olly Oyster

From:

Sent: 16 May 2016 13:17

To: Ask Olly

Subject: Surrendered Oyster cards

Hi Olly,

What is the official stance on returned/used Oyster cards?

Do we recycle them or simply throw them away? I keep hearing conflicting answers from CSS' & CSMs.

Thanks



Hi

Thank you for your email and query.

We have had a few previous emails about the Child facilities on the POMs and a number of refinements have been made to make the screens less confusing for customers.

The facility to buy a ticket for 5-10 year olds is required if the child does not have a 5-10 Oyster Photocard and is travelling unaccompanied or on National Rail services. Since the last screen changes, customers are reminded of when a child ticket is required and when children can travel free before completing their purchase.

Regards

Olly Oyster

DEVICE MONITORING

Following our article in the Project Update section of TRU91, the Device Monitoring app was released on 18 May, for station staff to use on their IPads.

However, although the facility can now be used to monitor POMs and report faults direct to Cubic, it is far from the finished product. So in our special feature this month, we give you an update on this tool, current and future developments and on Page 11 (opposite), we address a number of frequently asked questions about the Device Monitoring app.



Rather confusingly the new app has been branded as "Ticket Monitoring" (see logo below) which does not accurately describe its purpose. To allay any confusion; although it replicates some of the functions of the Station Control Unit (SCU), it has nothing to do with monitoring tickets or the existing "Ticket Monitoring" facility on the SCU, which allows certain categories of ticket / products to be highlighted and / or blocked on our gates and is commonly used by our Revenue Control teams. At present, the app is only linked up to provide status information on POMs, but will eventually also allow staff to monitor the gates at their station as well.

As a reminder of information already published in the weekly Hot Issues Bulletin, all station staff should ensure that they;

- Have the app available on their iPad
- Log on to the station or stations they are covering to receive relevant status updates. At stations such as Kings Cross, Bank/Monument, Canary Wharf and Waterloo where devices are split between different NLCs, staff will need to select the NLCs for the relevant area of the station they are working in, or all areas for Supervisors and
- The Maintenance & Failure Register must still be used for recording Gate, TOM and SAF faults
- Events will be classified in one of three categories:
 - Consumables where staff will need to add stock, or float a device,
 - Fingertip maintenance where staff will need to undertake first line fault rectification to clear the problem.
 - <u>Cubic maintenance</u> which covers faults where a Cubic engineer has been assigned automatically to clear the fault.
- Check their iPad regularly for any alerts or status changes
- On receiving an alert, station staff must acknowledge the alert and attempt to clear the problem as soon as possible. If a fault remains unrectified a further alert will be issued and the issue will then be escalated by further alerts to the relevant Supervisor and if still unresolved to the appropriate manager
- If unable to rectify an issue or a POM fault needs to be raised with Cubic, this must now be done via the iPad application.



Since it was launched, a number of refinements and changes have already been made. The most significant of these relating to the alert and update messages which

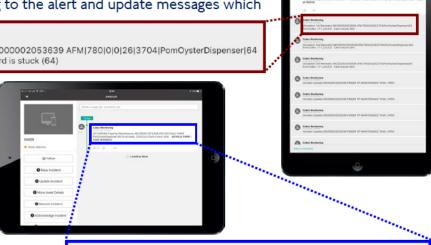
have been streamlined to make it clearer to the user, which device it relates to and what the specific problem is.



Recent testing has identified a defect in the current software, which fails to update the colour of a particular device on the station layout, once a problem

has been resolved. So a device will remain highlighted yellow or red, rather

than returning to the normal green status. Until this is resolved, it is necessary for the user to come out of the screen and back in to refresh the display and update the status so it shows correctly.



(IR1594564 Fingertip Maintenance) INC000001873348 AFM 29 CHALK FARM PomOysterDispenser 64 ErrorCodes: 228,0,0,0 Card is stuck (64) . @CHALK FARM -0540 @540029

Ticket Monitoring

DEVICE MONITORING



Since the launch of the app, quite a large volume of escalation emails have been generated. The app is designed to send these when a fault condition has not been acknowledged on the IPad or acted upon within set times.

This is currently set up in 15 minute blocks, so if the problem hasn't been addressed after 15 minutes a reminder will be sent to users. After a further 15 minute period (i.e. after 30 minutes) this will then be escalated to the next level (either a CSS or CSM) and after a further 15 minutes to Area Manager level.



To avoid unnecessary escalations occurring, it is important that when an alert is received, a member of staff acknowledges it and tries to resolve the issue as quickly as possible.





The function to also monitor gates is dependent on the gates being fitted with the new LCP3. As you will read on Pages 16 and 17, progress on rolling out the LCP has been slow, but in conjunction with the loading of an experimental version of software at Cannon Street and Embankment, we have asked for the feed into the Device Monitoring app to be switched on for the gates at these two stations, to assist with increasing the visibility of faults on the gates during the current Vanguard.



We hope to also be able to add the facility to monitor the gates as well as POMs at a number of other stations with predominantly E2 gatelines shortly.

DEVICE MONITORING – FREQUENTLY ASKED QUESTIONS

- Q Does the App replace the SCU?
- It will assist staff to monitor POMs when they are away from the ticket hall or when responsible for devices at more than one station, but it does not have all the functions of the SCU. We will continue to have a SCU in each ticket hall and an additional SCU in Station Offices and in POM Rooms where there are more than 5 POMs.
- Q What devices are covered by the app?
- Currently only POMs. Although Gate reporting will be turned on at some stations shortly. PVals, TOMs, SAFs and SCUs are not covered and will still need to be reported to Cubic in the traditional way.
- Q Do we still need to phone the Cubic Helpdesk (Auto 1610)?
- POM issues should now be logged via the IPad. You will need to continue to phone 1610 for faults on other devices.
- Q Does the app replace the Maintenance & Failure Register?
- The Maintenance & Failure Register will continue to be needed for devices not currently covered by the app. There is no need to record issues that have been logged via the IPad as the history and fault details should be visible on the app.
- Q When will we be able to see and record faults on our gates?
- The facility to receive information from gates is dependent on gates having been upgraded with the new LCP3. Stations with E2 gates that have already been upgraded are likely to have monitoring switched on for their gates shortly.
- Q What do I need to do if I receive an alert about a problem on one of our POMs?
- If you are able to investigate and resolve the issue, you should acknowledge it and once you have investigated either resolve the problem or request a Cubic Technician to attend.
- Q Does this link into the devices used by Cubic Technicians?
- Not directly, but jobs logged via the app will be sent to the nearest available Technician by the Cubic Helpdesk's software.

SPRING CLEAN (Part 2 - POMs)

A long time ago in *TRU44* (September 2010) we encouraged stations to carry out an "Autumn sweep", one aspect of which focussed on presentation of stickers and notices on our POMs and gatelines.

A number of recent station visits have highlighted the appearance of a number of non-corporate notices on POMs, gates and whiteboards, whilst in many cases the official stickers are either missing

or damaged. A few of these are illustrated on the right and should be removed and / or replaced where found.

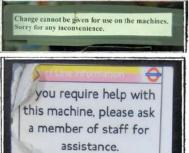
POMs added to stations as part of the Ticket Hall Transformation project have already been supplied with new upper panel vinyls and have had all unnecessary stickers removed and now have a cleaner more modern appeal as shown on the MFM and AFM on the right.

On LU POMs many of the important messages that have been produced on stickers for many years, have now been incorporated into the main screen where they have been included as timely prompts in line with customer selections.

There is no need therefore for these stickers to be duplicated on the device and should be removed. All other stickers are available as replacements as per the table provided below.

Replacement stickers for MFMs with Bank Note Recyclers for the "Insert note here" and "Collect your notes here" areas are currently available via the Cubic Helpdesk, even though a product code is not yet available. We will inform you of these codes as soon as they are available via the Hot Issues Bulletin.

NON CORPORATE NOTICES



WORN OR DAMAGED STICKERS



MISSING STICKERS





	Devices		Sticker	Sticker Name		Supplier	In use
MFM	AFM	QBM		Smartcard reader	LUSS/112	Cubic	✓
MFM	AFM	QBM		Smartcard reader not working	LUSS/114	CDL	✓
MFM	AFM	QBM	39	Device number	LUSS/107	Cubic	✓
MFM			Notes	Notes accepted	LUSS/162	Cubic	✓
MFM	AFM			Zonal Underground map	LUSS/160	CDL	✓
MFM	AFM	QBM		Chip and PIN orientation	LUSS/150	Cubic	Tourist hotspots only
			WILA WILL The minute of the m	Using your Credit / Debit card	*		*
No	No locación una		Always protect your PIN	Always protect your PIN	No longe	ar in use	*
No longer in use		use	Oyster only	Oyster Only (QBM	140 tolige	er iii use	*
			Oyster and tickets	Oyster and tickets (QBM)] [*
CUBIC	CUBIC HELPDESK Auto 1610					0 8896 620	0
CDL			www.cdllo	gistics.com/client-login/	(c	lick to order	-)

Banik of England

Five Pounds

POLYMER NOTES (Part 2)

The Bank of England's first ever plastic currency, a five pound banknote featuring Winston Churchill was unveiled at Blenheim Palace (the ancestral home of the Churchill family) on *Thursday 02 June 2016* by Mark Carney, Governor of the Bank of England.

It forms part of the Bank's switch to polymer banknotes, which will end

320 years of paper money. This new banknote which will go into circulation from Tuesday 13 September 2016, will be the first of a series of new plastic notes, followed by the Jane Austen £10 in the summer of 2017 and the JMW Turner £20 by 2020.

In TRU91 we told you how the notes are manufactured from a transparent plastic film and coated with an ink layer and that polymer banknotes are seen as cleaner, more durable and more secure than paper. The material also allows the inclusion of clear "windows" to protect against counterfeits.

Due to the scale of the change, the introduction of polymer will affect every retailer in the country that currently accepts cash payments and as with any change in banknote design, London Underground is also in the race to plan and prepare for the introduction of these new notes.

Additionally, as a business there is a need to educate our staff about the new features of the note that the Bank of England are introducing. We have provided a few of the key anti-counterfeiting features below, but you can also get a sneak preview from the BofE website;

http://www.bankofengland.co.uk/banknotes/Pages/educational.aspx



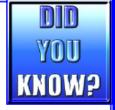
Decisions are currently being finalised as to how we will collect current notes for withdrawal and recycle the new notes back to customers as change.

The upgrading of devices such as ATMs and non-ticketing vending machines are covered by external parties, however since the closure of our ticket offices, there is a higher demand on our MFMs from customers and on our back office systems with our newly acquired Cash Handling Devices (CHD). Both these devices will require software and possibly hardware upgrades, as they will need to accept, count, sort, dispense and recycle the new banknotes in one capacity or another.

Further details on our plans to get our POMs and CHDs ready for the acceptance of polymer notes, when they are introduced later this year, will be included in the final part of our 3 part special feature on polymer notes in TRU 93.

CASHLESS SOCIETY?

2015 was the first year in our modern history that cash was used for less than half of all payments by consumers, with contactless payments having soared in popularity;



- Cash made up 45.1% of payments, compared against 64% in 2005 and is expected to amount to only 25% by 2025.
- More than a billion Contactless payments were made in 2015, a threefold increase on 2014.
- Cheques aren't quite dead and buried yet, with 546 million of them being written last year... despite most retailers refusing to accept them as a method of payment
- The average UK adult makes a total of 648 personal payments a year... that's 54 per month
- ...20 of which are made using by a debit card and in 2015 there were 19,276 debit card payments made every minute.

Source - The Guardian, 23 April 2016

PROJECT UPDATES

CASH HANDLING



SCAN COIN

As we go to print with this edition of TRU, we will have passed a milestone by installing the 150th Cash Handling Device at **Stockwell**. This means that we have now installed more than half of the 287 CHDs we plan to introduce.

Devices continue to perform well and have been received with enthusiasm by users on most areas. However over the last month we have continued to be beset with problems with user accounts and PIN access.



Typically we have seen a number of users disappear from the user lists held by each device, meaning that when they try to sign on, their TSID is not recognised by the CHD. As long as the CHD involved is online, the T&R team can reactivate the account remotely, but this can be very frustrating when it occurs and particularly when the same user is affected more than once.

The other issue we have seen on a frequent basis involves users who have changed the initial PIN they have been issued with, to a PIN of their choice, only to find when they subsequently try to sign on later, or at another station, that their chosen PIN is not accepted by the CHD. For this reason we are advising all users to retain a note of their initial PIN they are issued with, just in case their account is reset.

The causes of both issues are currently being investigated by Scancoin, but would appear to be linked to a number of devices where the connection to the central data system is intermittent. It would appear that disruption of this connection may cause the local user file to be corrupted and then retransmitted to other devices. Although this was initially attributed to use of a 3G/4G connection, we have recently seen issues at some sites where due to poor coverage, devices have been installed with a fixed connection via the TfL IM network. Apart from addressing issues with the routers and connectivity, Scancoin have also looked at the frequency that each device updates its user file. Initially this was set up to be around every minute, but as the number of devices and users has increased, this has recently been reduced to every 7 minutes.

Moving forward it is proposed that the frequency of updates at most stations will be further reduced to once every 45 minutes. The downside of this would be that depending upon when a change is made, a user might have to wait over 30 minutes for a reset of their account to be transmitted to the device they are attempting to use. However, if the number of times we need to do this is dramatically reduced, it should not cause major issues and would be similar to the timescales for activation of a TSID card on the Cubic system. At bigger sites with multiple CHDs we plan to leave the current update time at 7 minutes, as we would require more frequent transmission of changes to the user list, so that PIN changes on one device are quickly shared with other units on the same station.

At these sites, it is much more likely that a TSID card holder will need to use different devices on the same station within a short period of time.

The recent software changes and the planned introduction of a number of slimline CHDs at stations where we have acute space issues within the POM Room have resulted in us updating the current *Introduction of Cash Handling Device* (Version 4) briefing document, which will also include a number of flowcharts for some of the key processes.

These flowcharts will eventually be incorporated into updated versions of *T&R Books 3 & 4*, which are due to be reprinted for the September Fares Revision. The updated briefing document should be available in early July and will be used for those stations which are due to receive their CHD in the next wave of installations. We are also hoping to make this available on the T&R pages of the intranet shortly.

Experience of CHDs being used at a wide cross section of stations has also lead us to develop a set of "CHD Golden Rules" similar to those produced for the SAF. These cover some of the key points to be followed and common pitfalls.





PIN PROBLEMS

The main topic the T&R team seem to have been dealing with over the last couple of months, seems to have been varying issues relating to staff PINs.

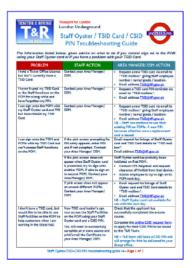
As you will read in the CHD article on Page 14 (opposite), we have had some major issues with the synchronisation of PIN changes between devices.



As if this isn't enough, we have also identified a couple of issues with TSID cards which for one reason or another are locally blacklisted at a station.

Although we have the ability to re-whitelist such cards overnight, we have had several examples of where after reactivation, the same card has been re-added to the local blacklist and deactivated again. Unfortunately this has happened several times to the same card, which can be very frustrating for the card user.

Investigations by Cubic have identified that since we moved to a standard 04.30 hours End of Day, in readiness for Night Tube operations, there can be a conflict around when the TSID whitelisting file is applied. In some cases it would appear this has been sent to the Station Computer during a period it cannot act upon the information and as a result, instead of clearing the local blacklist, this is then retransmitted to all devices.



We have also seen examples of the same issue being caused by one "rogue device" at a station. In this scenario a device effectively retains the local blacklist instead of clearing it at End of Day, causing the same card to then be locally blacklisted on other devices at the station.

This can be resolved by either "cold starting" the device to clear its memory or by replacing the PC on it. At bigger stations the challenge is to identify the device responsible. Cubic are continuing to look at how we can avoid such issues occurring, but in the meantime we have been forced to manually add affected cards back onto the system each day.

We also deal with a lot of other general problems and queries relating to PINs, be it a PIN for a TSID card, for use on the CHD, or a CSID. It would help the T&R team considerably if before contacting us you referred to the trouble shooting guide on the T&R section of the intranet.

http://luintranet.tfl/static/documents/coo/Staff Oyster-TSID-CSID PIN troubleshooting guide v4.pdf

Some useful tips

Staff functions on the front of the POM, the ability to sign onto a TOM or POM using the TSID card and access to the CHD are all managed independently, even though you may use the same PIN for all 3 functions. The T&R team can issue PIN reminders for all of these functions, but CSID and TSID PINs have to be sent to the relevant Area office and cannot be given out over the phone.

If you have forgotten your PIN, please email your details to either "TSID" or "CSID" as appropriate. Please be clear whether you are talking about a TSID or a CSID. You cannot have both.

Enter PIN (3)

- TSID cards give access to all functions
- CSID cards only provide restricted functions on the front of the AFM and MFM for staff who have not qualified to have a TSID card.

If your TSID stops working for some reason, check whether it allows you to sign on to other devices and also whether your PIN gives you access to the pink screens on the front of the POMs.

If you have recently completed your TMS assessment and have received a TSID card, make sure you activate the card by ringing the number indicated on the envelope, before attempting to use it.



Join our email Distribution List to ensure you get the benefits from;

- the most recent edition of the TRU, on the same day it goes to the printers.
- having your own personal copy.
- access to archived copies.

Send an email to;

PROJECT UPDATES

GATE LCP



In TRU91 we outlined plans to use a couple of gates of each gate type, to help us trial new software and modifications and speed up the process of rolling out a final version of LCP software for each type of gate.

E2 Gates

Since our last edition an initial 2 gate trial of new software and enhanced device monitoring at Cannon Street has been expanded CANNON STREET to include the whole of the gateline there, as early attempts to capture log files when a gate failed, had seen failures occurring on gates that did not have the special event logging facility.





Since all gates were equipped with the logging software, we have only seen one gate fail with an Error 01 (which relates to an unsuccessful shut down of the gate's control system in the event of a power failure. On this particular gate this appears to be down to a genuine hardware fault rather than being related to software.

The cause of the problems we had previously seen on the gates at Cannon Street, remain unexplained, but the fact that we haven't seen further occurrences since all gates were upgraded with the enhanced logging, has led us to wonder whether this is as a result of the logging software possibly making the gate processes slightly slower, or as a result of the various hardware replacements undertaken when gates had previously failed.



Next steps - To try and bottom out the above problem, we will be making two further changes on E2 gates:

- From Tuesday 14 June we will be removing the enhanced logging from each of the gates at Cannon Street, which will continue to run on the latest E2 Vanguard software. This will enable us to check what difference the logging makes to the gates performance.
- On Thursday 16 June, we loaded the same software, but with the enhanced logging to all of the gates at Embankment. Unfortunately, due to an oversight in changing settings, after successfully upgrading all of the gates, they then reverted back to the previous software at 04:30, when they went through End of Day. The software was then reloaded the following night to take effect from start of traffic on Saturday 18 June. This will now enable us to monitor the impact of the software and some of the previous fixes included, on a further set of gates, where the hardware has not been replaced. With monitoring on all gates, any events that do occur should be captured and the cause identified quite quickly. In parallel with this work at Embankment and Cannon Street, Cubic will also be switching on the data feed from these gates to the Device Monitoring App (see Update on Pages 10-11). This will mean that staff at the stations will be able to view the status and errors occurring on their gates and log any gate faults with Cubic from their IPad.

El Gates

All did not go exactly to plan when Cubic attempted to upgrade 2 gates at London Bridge with the new LCP3, latest software and enhanced logging software. One of the gates was upgraded successfully, but the other failed and took several days to fix, due to the need to replace multiple components.





It was later identified that these issues were due to a fault which occurred during the installation process which lead to incorrect voltages being fed to a number of circuits which causing various components to be damaged.

Since it was subsequently upgraded, neither gate has seen the level of THU errors (Error 30/130) experienced during the initial Vanguards at Stratford and Bank.

The same version of E1 gate software has also been deployed to the 2 E1 gates at Tufnell Park and on 8 of the gates at Stratford (4 on the Mezzanine gateline and 4 on the East gateline).



GATE LCP (continued...)

Next steps - The enhanced logging software deployed at London Bridge will be deployed onto 4 gates at Stratford (East) and 2 of the Stratford (Mezzanine) gates from Tuesday 14 June. The remaining 2 Mezzanine gates currently on the latest E1 software will instead receive a firmware modification to allow Cubic to compare performance with the other gates.

After a period of about two weeks, we then plan to upgrade the other 2 gates with the monitoring software as

Pneumatic Gates

Last but not least, Pneumatic gates... Little progress had been made on the deployment of the new LCP3 to the oldest type of gates, as development and engineering resources have been largely focussed on fixing issues on the E1 and E2 software. These changes will automatically be carried forward into the P gate version.

In order to move forward with Pneumatic gates, it has recently been agreed to upgrade 2 gates at Green Park with LCP3s from Wednesday 22 June and to use these to test an initial version of software with enhanced logging to monitor whether these gates exhibit similar issues to those seen during the previous short P Gate Vanguard.

This will also give Cubic the first opportunity to extract event logs from a Pneumatic gate and will hopefully help us identify an issue which we have previously outlined in TRU. This involves the customer's card being successfully processed by the gate, but the paddles failing to open.



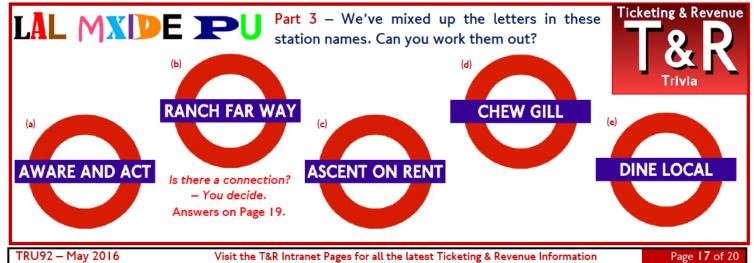
Re-presentation results in rejection as the gate identifies the card as having already been used. Although we know this happens, to date Cubic have not been able to identify what causes this within the gate processes.

MORE WAGS

As reported in TRU 86, the rollout of WAGs to a further 74 stations is now underway, with 18 sites already having been completed. In most cases Cubic will be doing a like for like replacement of the existing Manual Gate and PVal with a WAG, but at some of the locations where the layout does not permit this, more complex schemes will need to be undertaken. At a number of sites, this will see the replacement of all of the existing E1 gates with a new gateline made up of E2 gates and WAGs.



All of the new E2 gates and WAGs being installed, will come already fitted with the LCP3, so these will not need to be revisited as part of the future LCP3 upgrade programme, although they will be included in the software upgrade, when a new version of E2 gate software is released.



PROJECT UPDATES

POM UPGRADES RESCHEDULED

In TRU 89 and 91, we outlined plans for a Service Release of new software for the AFM and MFM to address a number of outstanding defects. The upgrades were originally scheduled for Sunday 29 May, in conjunction with work to increase the bankcard transaction limit on POMs to eventually allow customers to buy Annual tickets.

However since publication, both of these elements have been deferred until later this year, partly due to other work which is underway or planned and to avoid the prospect of multiple upgrades taking place either at the same time or one after the other.

It is now proposed to deploy these changes for each device type separately, with the QBM, which covers the smallest number of devices and the easiest changes, going into a 10 device Vanguard first, starting on Thursday 23 June. The upgraded POM software and change to the bankcard limit will then be deployed onto the AFM, with a 30 device Vanguard now scheduled for mid-July.

The rollout of the software for AFMs will be completed separately to the PED upgrade work which will follow-on in September.

Since Cubic have recently confirmed that all of the defect fixes incorporated in this release have also been included in the MFM software for the forthcoming PED upgrade. This is currently being tested and is also currently scheduled for Vanguard in mid-July.



Providing that there are not any unforeseen delays to either programme is therefore likely that deployment of the software changes will be as follows:

Device	Vanguard	Rollout	Completion
QBM	23 June 2016	With PED rollout from early September	January 2017
AFM	Mid-July	Following Vanguard	Mid-August
MFM	Mid-July	With PED rollout from Mid-August	End October

BNR UPGRADES UNDERWAY

Following an initial trial on a MFM at Oxford Circus (as outlined in TRU 90), Cubic have recently commenced a programme to upgrade the other 97 MFMs currently fitted with Bank Note Recyclers.

The work is being undertaken during traffic hours, between the morning and evening peaks, to minimise disruption to staff and customers by having devices out of service or in "Exact money only" mode for the shortest possible time.

The upgrade commenced on Wednesday 01 June at Gloucester Road, before moving on to Kings Cross and Liverpool Street devices during week commencing 06 June.

The upgrades fall into two elements:

- A software change to reduce the maximum number of notes held on each of the recycled rolls. This will resolve an issue where the BNR stores too many notes on one of the recycler rolls, causing it to then jam when the device attempts to dispense a note, or dump the notes to the vault. This has led staff at many stations with BNR units, to regularly dump the recycler contents into the vault to prevent it becoming over full.
- ➤ A hardware modification to the access panels of the BNR to restrict access only to Cubic engineers. This may mean that if a note becomes hammed in certain positions, a TSID card holder may no longer be able to clear the jam, but will need to log the fault for a Cubic engineer to attend.



AFM MODIFICATION TO BE TRIALLED

Since the initial introduction of the Oyster card dispenser units in our AFMs, staff have struggled with the task of topping up the card cassette. This us partly due to the positioning of the unit behind the Service Panel and partly due to the actual design of the cassette, which requires two hands to lower the additional stock down to replenish the unit. If the stock is simply dropped in, there is a high risk that some of the cards will not lay flat. This can subsequently cause the dispenser to jam, if the problem is not spotted and addressed.

To overcome these issues, Cubic's engineering team have developed a modified Oyster card cassette, on which the top bars have been removed to allow the Oyster card stock being added, to be lowered down onto the pile of stock already in the unit, with one hand.

Apart from being much easier for the user, it is hoped that this will have a positive impact in reducing the number of card dispenser faults and therefore improve both the reliability and availability of AFMs.

We plan to trial the modified cassette at the following locations:

Station	Device
Bayswater	AFM 28
Heathrow T4	AFM 28
Leicester Square	AFM 28
Tottenham Court Rd	AFM 28
Tottenham Hale	AFM 28

These sites have been selected to allow easy comparison between an AFM which has had the modification and an adjacent AFM which has the standard cassette. After these initial 5 devices have been fitted with the new cassette, we may extend the trial to 4 further devices at a couple of further sites to gain further experience of its use.



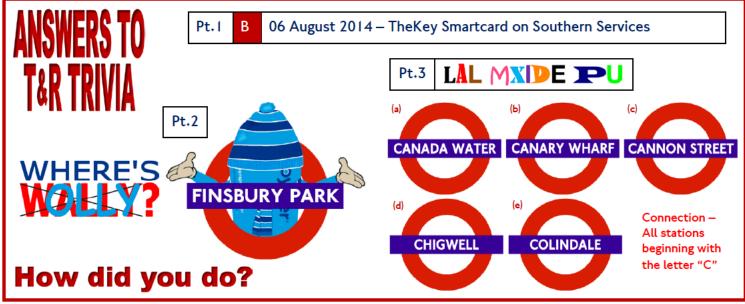
Current AFM dispenser



Revised dispenser cassette

We will be seeking feedback from staff at the trial stations once the modification has been implemented, before making a decision on rolling it out more widely.

The MFM has a similar cassette, but as the card dispenser unit is a lot more accessible, we do not have as many issues with restocking the MFM. However, if implemented on all AFMs we are likely to also make a similar modification on the MFM as well, to ensure the parts are standard to both device types.



...AND FINALLY!

POM TICKET RANGE

Although the range of tickets available from our POMs has been greatly enhanced over the last couple of years, there are still a small number of tickets that it is not currently possible for customers to buy. We have summarised below, some of the main reasons why a customer may not be able to buy their desired ticket, many of these revolve around the non-availability of discounted tickets at certain times:

- Railcard Singles and Returns for through journeys from LU to NR destinations are not available (they were never sold at LU ticket offices). These discounted Singles/Returns for wholly NR journeys are available at stations covered by T&R Book 6. We hope to be able to offer a range of Railcard discounts on through journeys at some time next year.
- 16-25 and HM Forces Railcard discounts are not offered on weekdays for journeys before 10:00 (except during July and August) as POMs cannot apply the £12.00 minimum fare which applies at these times.
- Network Railcard discounts are only offered at weekends, as POMs cannot apply the £13.00 minimum fare which applies during the week.
- Child Railcard Singles and Returns are not available as they are not supported by our ticketing system. This means that Family & Friends Railcard holders are only offered Day Travelcards.
- Boundary Zone extension tickets to NR stations outside the PAYG area are only available where the
 Travelcard is on Oyster and includes Zone I. Due to capacity constraints, only around I40 of the most
 popular destinations are available, not the full range. We hope to offer extension tickets for holders of
 non-Zone I Travelcards at some time next year, once we have developed a way for POMs to check that
 the specific journey does not need more than one extension ticket.

As we have previously reported, in any situation where a customer cannot buy the ticket they need for a National Rail journey they should be advised - as allowed by the National Rail Conditions of Carriage - to buy a ticket for the first part of the journey and pay the difference at the first reasonable opportunity, which may be on the train or at an interchange station or their destination.

If you are aware of any other tickets that customers are unable to buy from POMs at your station, please email details, including the relevant destination and ticket type to:

Although the information was correct at the time that we went to print, the planned Service Release of new POM software on 29 May was subsequently postponed.

Further details on forthcoming POM upgrades and revised timescales are included on Page 18 of this edition.

It has also been pointed out that in last month's Ask Olly, in response to a question about Oyster Registration forms, it failed to mention that the printed forms are also required by any customers who wish to add a discount entitlement to an Oyster card that is currently unregistered.

NEXT ISSUE

Our next edition TRU93 is due for publication towards the end of July and as promised in the lead article this month, will include a re-run of the ticketing information relating to the launch of Night Tube services.

The next edition will also feature;

- Update on contactless payments
- Further detail on POM and PED Upgrade projects
- A reader survey to get your views on how you receive TRU and what it contains
- Part III of our feature on Polymer banknotes and what we are doing to get ready for their introduction

Plus all our usual features, T&R News, project updates and a further selection of your letters to Olly.

