

In mid-June, London bus operator Metroline returned to a full service, nearly three months after the COVID-19 shutdown closed the capital to all but key workers. Group engineering director Ian Foster explains how the operator adapted to changing requirements

Metroline carries Londoners on some 1,800 buses driven by 4,500 driver on 100 routes, based out of 15 garages and a central engineering facility in West Perivale.

One of the operator's first reactions to COVID-19 inside the buses was to close off the drillings in the assault screens protecting drivers' cabs. That offered additional protection to the screens, which already block 80% of the apertures through which vapour carrying the virus might pass. Later on, out of increasing concern for drivers' health, the front door of the bus was closed off, and passengers board through the middle doors, to increase their distance from the driver. (Since the Oyster card reader is at the front, that also meant passengers were travelling for free).

Another alteration was re-routing the air conditioning systems so they do not take recycled air from the passenger cabin - with some effects on the buses' efficiency, Foster reports. In May and June, additional work has been done to reduce airflow transfer between the driver's cab and the passenger saloon, to almost zero. Now, all of the bus's windows are opened before it starts service. And although services are returning to normal frequency, they will carry only

a quarter as many passengers as they did pre-COVID.

In the early days of the outbreak, Metroline stepped up nightly bus cleaning regimen too, to include the use of anti-viral spray on all touch points. The driver's cab is cleaned and sealed with a sticker naming the cleaner, in case of any dispute. A second long-lasting antiviral disinfectant is also being used in buses and elsewhere.

Staff have been given additional PPE; drivers can ask for face covers or masks; first-shift drivers are given disposable gloves for carrying out pre-use checks.

Despite such precautions by Metroline and other operators, 33 bus workers have died of COVID-19, according to Transport for London (TfL) figures from mid-June, a mortality rate that is more than eight times higher than that of tube and rail staff. "For us, it's more than sad," reflects Foster. (TfL has commissioned University College London to provide independent advice in a study to better understand COVID infections among London's bus workers.)

From an operational point of view, it was fortunate for the operator that the health needs of Metroline staff mirrored those of its passengers. Around the time that its own staff started to self-isolate, TfL also reduced the bus service

THREE MONTHS LATER



LONDON COVID-19 TIMELINE (SOURCE: TFL)

18 MARCH ▶

- ▶ Bus services reduced

23 MARCH ▶

- ▶ Road user charging schemes cancelled

8 APRIL ▶

- ▶ Clear film covering holes in driver screen
- ▶ Trial of middle-door-only boarding
- ▶ Passengers have declined by 85%

20 APRIL ▶

- ▶ Middle-door boarding introduced across network

18 MAY ▶

- ▶ Bus operations ramp up towards 85% bus services operating
- ▶ Congestion charge & ULEZ reinstated

monton Green



Please give our drivers some space and use another seat if possible

MAYOR OF LONDON

COVID-19
STAY HOME
PROTECT
THE NHS
SAVE LIVES

TRANSPORT FOR LONDON

Maximum capacity

20 passengers

The bus driver has the permission to allow up to 21 passengers when face coverings or gloves are worn together. Do not stand near or speak to the driver except in an emergency.



Board at front doors only



WHEN INSIDE PLEASE FOLLOW THE SIGN INSTRUCTIONS THANK YOU FOR PRACTICING SOCIAL DISTANCING



21 MAY ▶

- ▶ Review commissioned into COVID-19 bus worker deaths

22 MAY ▶

- ▶ First phase of contactless touch-in reinstated
- ▶ Covering up of cash window underneath driver door

29 MAY ▶

- ▶ Front-door boarding returns, after UCL research finds driver protection measures adequate for safety

15 JUNE ▶

- ▶ Face coverings made compulsory on public transport



frequency: first to a Saturday, and then to a Sunday service. "Patronage fell away, and we were carrying 20% of the passengers we had 4-5 weeks earlier," Foster recalls.

As the service reductions cut down the average fleet mileage, Metroline adapted its maintenance regime.

"We pushed the service and inspection intervals out to nearly the maximum allowed. Our licence allows us to go out to 42 days, which we never do; we go to 28 on buses older than five years, and 35 days on newer buses. We pushed all of the fleet out to 35 days because 25-30% were parked up. We were still in compliance, and the buses were still inspected, but at a slightly longer interval near the upper level of what we allow. That enabled us to plug our gaps in self-isolating staff." Staffing levels in the workshop were not as badly affected as front-line workers; at the height, perhaps 10% of its 300 engineers were away from work.

These maintenance changes were only possible because of the reductions in demand, Foster emphasises. "Our service and operational schedule takes mileage and time into account to make sure that we are sticking to our preventive maintenance plans." For example, some vehicles will have an extra five to six weeks of brake life; oil filter run hours are also being adjusted.

Meanwhile, in the workshops, rest areas were altered to increase the distance between people; hand sanitiser was supplied; those working in close physical proximity were advised to wear masks. Engineer restrooms are treated with an antiviral fog every month.

"The engineering staff has done an excellent job; the majority of staff are working normal shifts as they should do.

Most of us are doing a normal everyday job in abnormal circumstances."

THE RETURN

In early June, workshops started returning to previous service levels (28 days for the older buses) in preparation for resuming normal service in mid-June. "The only issue is that there's no MOT testing. They are still being prepared for MOT inspections, and go through brake inspections. By the time that all routes go back to a normal service, every vehicle will be back into its allocated service slot."

As far as parts supply went, Metroline was alerted to the severity of the crisis through its sister operation in Singapore (their corporate parent is Comfort Delgro), so it acted earlier than other fleets to secure spares in advance of lockdown. Parts stockholdings had already been beefed up because of Brexit, Foster says, although throughout lockdown suppliers were working.

Engineering teams used the quiet period to catch up on some pre-existing service campaigns, and resolved warranty-related issues. There has been a marginal savings on parts for maintenance in the period; and labour similarly. "We've not had the problems of others, who have parked up their fleet completely, and now will have to start it up again."

That situation is faced by Metroline's own coach operation, most of the staff of which have been furloughed because of the lack of work, apart from

a skeleton staff kept on for rail replacement work. "My guys have been moving the coaches to park the buses. But there are lots of coach companies that have parked up their vehicles for three months. When they start to look at them, they will find issues with the cooling systems, and the tyres gone flat. If operators haven't started them up, they may have surprises when they finally do get into them."

Foster acknowledges that a return to normal bus service does not mean a return to normality. He is left musing about how the crisis will affect buses around the country in the long term. "Will the requirements be the same in the rest of the country, that drivers are segregated from customers? It's only in London, Manchester and some other large cities where there are assault screens. Will there be a bigger request for some separation?"

Secondly, he wonders whether, in the long term, TfL will decide that existing assault screens will need to be redesigned. "The stuff we have done with screens is temporary. If it were permanent, there would be a raft of new design requirements to fit all different types of bus operated in the UK."

For now, though, Foster says it is enough that the immediate health crisis has abated. "Everything has been about trying to anticipate the downturn, and then the upturn. But the best thing is that in the last few weeks there have been no more fatal or serious cases of people being ill; that is more important than anything else. We have done our bit for Queen and country; we kept the service running."