



Driven on data

EU tachograph legislation is set for another overhaul, but operators should check out some of the advances already available that go way beyond providing for compliance. Brian Tingham reports

With the replacement of analogue tachographs by digital devices - starting nine years ago under EEC 3821/85, since amended - virtually all operators running vehicles over 3.5 tonnes require software to read drivers' cards and VU (vehicle unit) data. How quickly you get that data (within the mandatory timeframes) and whether you transform that cost of compliance into value, however, is up to you. Many transport businesses certainly can: it all depends on the detail of your operation and your willingness to think outside the box.

This is not about simply meeting the legal requirement of carrying 28 days' of information on the vehicle for roadside enforcement officers: most drivers' cards carry six months-plus data while tachograph VU mass memories typically run to at least a year. Nor is it

just about ensuring that you download driver data within the 28 prescribed days, or the truck data inside the 56-day (soon to be 90 days) deadline.

No, turning this information to business advantage is achieved by getting the information in real time - rather than retrospectively - and using it much as some operators already use telematics data.

LIVE HEARTBEAT

As Guy Reynolds, technical director at tachograph equipment, software and services provider Tachodisc, puts it: "Too many transport operators are still working to the limits, collecting driver and vehicle information only when they absolutely have to. But we say 'Why don't you deal with the issues before they escalate, and take advantage not only of the savings available from remote download technology but also the tachograph's live heart beat?'"

Remote downloads - offered by main tachograph players Continental and Stoneridge, as well as telematics systems developers such as Microlise and others - enable, as a minimum, daily collection of driver's card and VU data. The digiDL, from Tachosys, also passes data directly to your preferred analysis service provider. Relatively few trucks have been equipped so far, but the technology is spreading, according to Chris Cuffe at Tachosys. "Only about 5% of trucks have been equipped, based on the numbers we've sold," he says, "but remote download is growing exponentially... We ran out of stock at the end of last year because demand outpaced our predictions."

The obvious saving here comes from no longer needing to schedule operatives to physically travel to each truck and capture the VU data using a download tool. Some tachograph firms charge for this service and there may be hardware or firmware implications, but increasingly it's a no- or low-cost subscription option, either direct or via your telematics provider.

However, moving up a gear to real-

time data visibility changes the game. "We can run drivers' hours calculations as your trucks are driving along and, for example, warn the transport office ahead of the four-and-a-half hour limit to prevent an infringement," explains Reynolds. More importantly, his company's Tacho Live can help the transport office not only in terms of planning but also responding efficiently to opportunities.

"Imagine it's 3pm on Friday and the office takes a call offering one more load to be picked up at short notice," says Reynolds. "They contact the nearest driver, but all he wants to do is get home, so he says he hasn't got enough time left. With this system, they can see that, if he takes his allowed extension up to 10 hours for that day, he can do it. That might be the difference between profit and loss for the truck."

Meanwhile, tachographs can and do play a part in driver behaviour and incident mitigation – way beyond their legal remit. For example, all VDO tachographs, manufactured by Continental, save incident speed data



Continental's tachograph enables smarter VU data collection

(triggered by heavy braking) to 0.25 second resolution, one minute before and after. Many also store 168 hours of speed information (at 1Hz) separately from the VU mass memory file. What's more, drivers and fleet managers can usually get instant graphical printouts of mode activities, speed, etc – which is also available for forensic analysis to validate forward-facing camera content.

Today's tachographs also optionally display drivers' hours remaining, duration of next break, remaining shift time, time to next weekly rest period, etc – and not only on the device, but on dashboard instruments and/or

smartphones. Traffic offices can track vehicle movements using GPS data – providing data either directly or via links to installed telematics systems. As Peter Needham, project manager at Continental, says, none of this need be expensive either. "GPS technology is much cheaper these days and it's useful not only for the enforcement authorities, but also fleet operators."

If your fleet already runs with a telematics system – whether pre-installed by the truck OEM or your preferred system from one of the independents – the likelihood is that the hardware can connect to the tachograph, too. On the one hand, that means remote downloads of legal data as part of the service. On the other, additional data recorded by the machine can also be provided. And as Microlise's director of products Stephen Watson says, there are no additional hardware costs. "You get the telematics and the connection to the tachograph built in, so you only have to pay for the service, which is £5–10 per month per truck. It becomes a no-brainer." [ITE](#)

Legislative update

From 2019, the regulations governing tachograph requirements are set to change again under EU 165/2014, which repeals EEC 3821/85. The good news is that there will be little or no change as far as compliant transport managers are concerned. There will, however, be significant differences, mostly aimed at assisting the enforcement agencies – DVSA in the UK, but also its European counterparts – in catching out fraudulent operators.

The most striking development will be that of a facility to 'blip' vehicles remotely, using a DSRC (dedicated short range communication) system, as yet undefined, to check for data including: latest security breach attempt; longest power supply interruption; sensor faults; motion data errors; vehicle motion conflicts; and driving without a valid card or insertion of the card while driving. There are no plans to extend that data transfer to include drivers' hours or anything more sophisticated. Full details of this development will emerge with the technical annex, due by March 2016.

Additionally, the use of GPS data will be mandated, with tachographs required to record each truck's daily start and end locations, as well as its

position every three hours of driving time. Again, it's about providing more information to assist in catching offending operators and/or drivers. The point: instead of enforcement officers having to rely only on drivers' card data, delivery notes, etc, they will also have detailed records of the truck's whereabouts at regular intervals.

On top of these, tachographs may be equipped with a standardised interface. This will provide for remote downloads of driver and vehicle legal data – in much the same way as already offered by most suppliers, using GPRS – via ITS (intelligent transport systems) components and applications.

These changes build on the developments enacted by EU 1266/2009 in 2011 and 2012, which brought in the high-profile 'one-minute rule' for drivers' hours – doing away with the old rounding-up regime – and additional security features. Most notable of the latter was the mandating of a Kitas 2+ type speed sensor and secondary speed signal – generally the ABS sensor data accessed via the CANbus, or a GPS GeoLoc device – to detect criminal interference with the system.