

Dublin Tunnel Newsletter

January 2016 – December 2016

Introduction

2016 is the second year of the Operation & Maintenance of Tunnels & Traffic Control Centre contract awarded by TII to Egis Road and Tunnel Operation (ERTO). The 6-year contract provides for the safe operation and maintenance of the Dublin Tunnel (DT), the Jack Lynch Tunnel (JLT) and the Motorway Traffic Control Centre (MTCC). All three projects involve some 92 ERTO staff providing a 24/7/365 service.

As the economy recovers, traffic levels are a good indicator of increased economic activity. In this regard, DT traffic increased by 12.2%, with an increase in tollable traffic (e.g., cars, motorbikes) of 12% and an increase in non-tollable traffic (e.g., HGVs, buses) of 12.5%. From January 1st 2016 up to December 31st 2016 the total traffic volume for Dublin Tunnel was 7,532,914. This was an increase of 816,773 on 2015

Part of the traffic increase is attributable to the strong performance of Dublin Port. The Port reports that more than 15.4 million tonnes were imported in the first nine months of 2016 - up 6.7% - while exports rose by 7% to 10.6 million tonnes, reflecting the continuing improvement in the domestic economy.

The Society of the Irish motor Industry reports new car imports of 146,672 vehicles for 2016 which is an increase of 17.52% on the previous year.

Preventive maintenance often requires a tunnel closure or reduced capacity. ERTO works hard to reduce any planned disruption, so that there were only 37 planned maintenance tunnel closures throughout 2016 ensuring maximum availability of the tunnel for tunnel users

The Motorway Traffic Control Centre continues to provide a 24 hour single point of contact for all users of the motorway network. Last year there were 9,664 incidents recorded and managed on the network.

Egis Road and Tunnel Operation Management

Dublin Tunnel Traffic Volumes

Key Metrics

- Monthly traffic year-on-year (YOY) movement of 12.2% from 2015.
- Average daily traffic YOY increase of 11.9% to 20,582 from 18,901 in 2015.
- Tollable traffic YOY increase of 12%.
- The highest volume in a single month since the opening of the Tunnel was recorded in November at 672,247 vehicles (October 2015 recorded traffic volumes exceed 600,000 for the first time at Dublin Tunnel – 2016 recorded traffic volumes in excess of 600,000 for every month apart from January and February).
- Highest volumes of traffic in a single day: 29,478 (18,832 tollable traffic) on 27th May.
- Lowest volumes of traffic in a single day: 2,330 (2,284 tollable traffic) on 25th December.

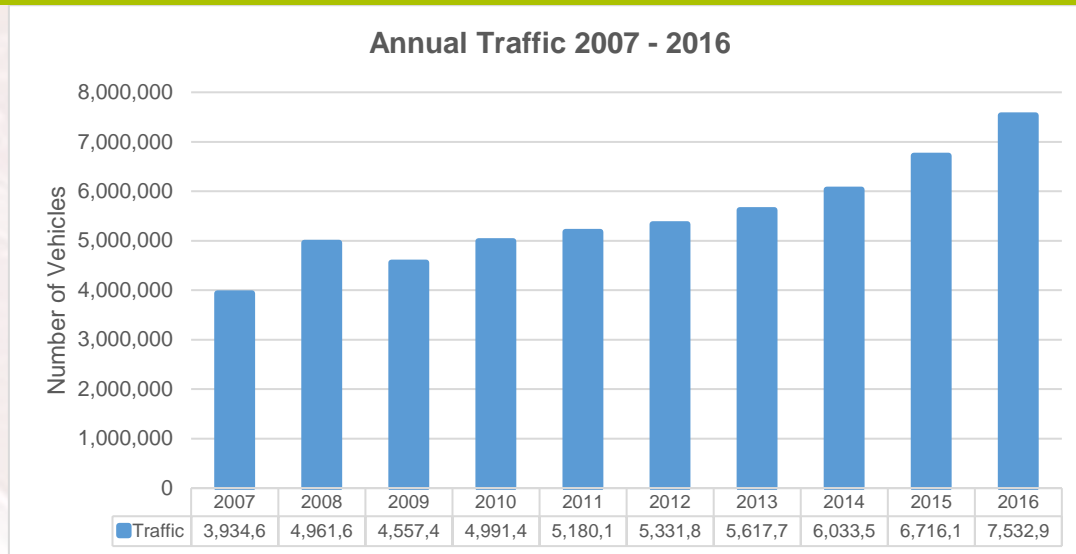
Traffic movements

Traffic volume follows a set weekly pattern throughout each month, with most days recording minimal movements in total traffic from one month to the next. However, total traffic is somewhat higher on certain days as result of attendees using the DT to access sporting and entertainment events, and commuters using the DT to avoid the associated traffic congestion.

Examples include:

Date	Total Traffic	Contributing Event
27 th May	29,478	Bruce Springsteen at Croke Park Stadium
16 th December	28,279	MMA Event at 3 Arena

2016 saw the highest recorded year-on-year traffic movements since 2008. This would correspond to increases as observed on other parts of the road network, and to key economic indicators such as the unemployment rate, which fell to under 8% for the first time in eight years in 2016.



Abnormal Loads, Accidents, Over-heights, Breakdowns and Rescues

Over-height vehicles, abnormal loads and breakdowns are a constant source of disruption, requiring constant vigilance of the duty staff. They have a significant impact on tunnel availability for other tunnel users, but safety is the highest priority.

- Over-height vehicles continue to be a cause of disruption to the availability of the tunnel with 3,476 over height vehicles caused the tunnel to close for short periods.
- During 2016, 422 abnormal loads required intervention by the duty staff. For all abnormal loads that transited the tunnel, ERTO provided supervision and escort, ensuring the safety of other tunnel users. Wind turbines constituted a larger proportion of these loads.
- During this period, the Dublin Tunnel experienced 240 breakdowns of all types of vehicles, including buses, HGVs and light vehicles. All incidents required intervention by patrollers and vehicle recovery staff and we achieved an average recovery time of 40 minutes.

Fortunately no road traffic accidents involving injury occurred during this period.

Notable Events

Vehicle Fire – 20th June 2016

On the 20th June, Dublin Tunnel closed in both directions while Dublin Fire Brigade dealt with the HGV fire just outside the tunnel and brought the incident under control. The vehicle was removed and normal traffic could resume.

Toll Booth Damage by HGV – 14th December 2016

On Wednesday 14th December 2016, an oversized load entered Toll lane 2 South causing considerable damage to the booth and lane associated equipment. During the incident traffic was affected southbound while the truck and debris from the damage was cleared. The Toll Booth attendant was sent to hospital via ambulance as a precaution. The Toll Booth and lane were subsequently repaired and opened for full operation within 2 days.

Special Event

The Dublin Tunnel celebrated the 10 Year Anniversary of its opening on December 20th 2016. Delegates from Transport Infrastructure Ireland (TII), Egis Group, Dublin City Council, Dublin Fire Brigade, An Garda Síochána as well as Dublin Tunnel employees attended the event at the Dublin Tunnel Control Building.



Project Management Office (PMO)

Permanent Average Speed Detection System

In November ERTO PMO completed the Installation phase of the First Permanent Average Speed Detection System to be deployed in Ireland at Dublin Tunnel. The system is currently undergoing critical testing with go live date early in 2017.

M50 & Cork Region Laser Scanner

In conjunction with TII, AGS and the MTCC the PMO procured and provide training to AGS on the KOREC Laser Scanner which has been deployed on the M50 & Cork Region. The purpose of the laser scanner is to assist AGS with collection of forensic data at the scene of an incident reducing time on the road and thus reduces impact to traffic.

Pavement Rehabilitation works

ERTO has successfully completed an extensive replacement of the road surface throughout the Dublin Tunnel Affected Property. These works included not only a pavement aspect but drainage, road markings, Cats Eyes (standard and LED type road studs), traffic loops, barriers etc.

"A coordinated approach with all stakeholders resulted in minimal traffic disruption and successful delivery of this Project, A great team effort" - ERTO PMO Manager Darren Byrne

ISO / OHSAS Accreditation

ERTO obtained ISO 27001:2013 (information security) and ISO 55001:2014 (asset management) certification. The certification process took one year from already well-established activities, procedures and IT tools. It demonstrates the robustness of the asset management processes and the strong involvement of the team.

This brings to 5 the number of international standards ERTO complies with, further demonstrating its commitment to upholding the highest industry standards.

Environment

In 2016 no incidents of major environmental impact occurred.

The air quality metrics for the Dublin Tunnel bores remained consistently within the limits set forth in applicable regulations.

Tunnel Safety

Providing a Tunnel that is safe for tunnel users and operational staff is of paramount importance. In that regard all aspects of the tunnel infrastructure, operation, maintenance and training are reviewed on an on-going basis to ensure that the safest possible service is provided.

A programme of reviews and training and emergency exercises were completed with close co-operation with the Emergency Services, Tunnel Safety Officer and other Stakeholders.

Tunnel Maintenance and Closures

The January to December 2016 period saw 36 planned maintenance closures totalling 246 hours, which equates to 2.8% of the year. Training exercises accounted for a further 5 hours and 45 minutes or 0.066%. To reduce the impact on traffic, planned tunnel closures occur at night.

ERTO employs approximately 33 subcontract companies for maintenance works, with an average of 60 workers engaged on the tunnel closure nights. ERTO engage approximately another 25-30 sub-contractors and suppliers on an add-hoc basis.

In an effort to further improve the operation and reliability of Transport Infrastructure Ireland's (TII's) asset portfolio, all this work has further culminated in the production of a 36-month Forward Capital Works Programme (FCWP). This sets out for the Service Manager a detailed capital works investment programme for all the assets and systems of the Dublin Tunnel, the Jack Lynch Tunnel and the Motorway Traffic Control Centre.

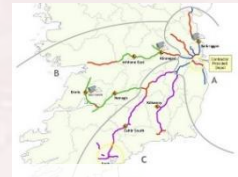


DT Tunnel Wash

Motorway Traffic Control Centre (MTCC)

The MTCC monitors and responds to all major motorways in the Republic of Ireland. Last year we responded to 9,664 incidents reported on the network. When a road user calls, the MTCC responds by arranging assistance for the caller and bringing the matter to a safe conclusion. The MTCC provide a 24/7/365 availability to the public should they require help and assistance on the motorway network.

- There were 1869 ERT calls to the control room in 2016. This can involve people in a distressed state with no means of recovery. Callers are typically in trouble having broken down, or being involved in an incident which requires emergency intervention. Motorists often use these phones to report accidents or debris, in the safe knowledge that they are in direct contact with someone who can act instantly and have an exact location. There are 1437 ERTs on the network.
- The MTCC have a new state-of-the-art camera system (80 CCTV cameras) on the M50, some of N4, N2 and N3, which allows for constant monitoring, helping to respond to and clear incidents as quickly as possible.
- Variable Message Sign (VMS) are located on all major roads. MTTC control these signs to inform motorists of possible delays, due to collision, breakdown, roadworks etc. This helps to save motorists time in making informed decisions in planning their journey, or to be observant of possible obstructions that may be in their path. There are 96 VMS on the network. The VMS network have been used to inform motorists of incidents on the network and also used to support An Garda Siochana in the safety campaigns in an effort to reduce fatalities on the network.



MTCC coverage



ERT



VMS