

FREIGHT BEST PRACTICE SCOTLAND: THE FIRST YEAR

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1. WHAT IS FREIGHT BEST PRACTICE?

Freight Best Practice is the flagship freight transport sustainability project within the UK. The programme promotes operational efficiency, safety, journey time reliability and CO₂ reductions through road, rail and waterway freight operations.

Freight Best Practice has been operating in England since the mid-1990s, when the initial focus was on road freight. The launch of Freight Best Practice Scotland is the first area where the entire freight sector, rather than just road freight, has been included from programme inception. In England the Department for Transport Policy Document 'Towards a Sustainable Transport System' sets key goals applicable to UK freight transport. The first goal is to maximise the competitiveness and productivity of the economy and the second to address climate change. Under the Kyoto Protocol, the UK is committed to a 12.5% reduction in CO₂ emissions by 2012. There are also longer term commitments to reduce emissions by 26% by 2020 (recently increased to 34% by the chancellor of the exchequer) and 60% by 2050 set by the European Commission (recently increased for the latter to 80% by the Energy and Climate Change Secretary.) As truck traffic accounts for 22% of all CO₂ emissions from UK domestic transport, and transportation in general is the only industrial sector where emissions are rising, it is important that range of tools are employed to help tackle emission levels. Freight Best Practice is an integral part of the UK's approach to reducing emissions.

Beyond the benefits for the environment, the cost of fuel is significant, typically in the region of one third of costs for a transport company. In order to support business, it is important to empower them with methods, which can help control their bottom line costs. The improvements in efficiency that the Freight Best Practice programme seeks to disseminate, can therefore not only help reduce the environmental impact of a necessary but energy intensive sector, but can help them control their operating costs. Freight Best Practice therefore also helps businesses to remain viable against a backdrop of the current economic downturn.

This year the Freight Best Practice Programme has funding to operate in different geographic areas, in England it is funded by the Department for Transport (DfT), The Scottish Government funds the programme in Scotland, The Northern Ireland Assembly does the same in Northern Ireland, and the Welsh Assembly would be required to fund future programmes for Wales

2. BACKGROUND TO FREIGHT BEST PRACTICE ENTERING SCOTLAND

Freight Best Practice Scotland was launched in November 2008. Funded by the Scottish Government, it provides information through publications interactive tools and ideas to the Scottish Freight sector across all modes: to improve their fuel efficiency thereby reducing their carbon emissions. The launch into Scotland is particularly exciting as it was the first area where, all modes, road, rail and waterways were covered from inception rather than in England, where the focus had been initially on the road haulage sector.

Freight Best Practice plays an important role in supporting Scotland's National Transport Strategy. The programme brings together the economy and the environment, through encouraging efficiency and best practice which helps toward the '*Reducing Emissions*' Strategic Outcome. This industry sector alone employs some 63,000 people directly and accounts for 3% of all Scottish jobs.

The past 3 years have seen a growth in awareness of Freight Best Practice amongst Scottish hauliers due to their attendance at industry events and through trade journals editorials. Freight Best Practice Scotland expands on the already successful English programme and brings it to a new geographic area. Successfully launching the programme in Scotland provided a fantastic opportunity for Scottish Hauliers to have full access to the bulk of programme material with a range of Scottish specific material being produced to showcase innovation in Scottish operations, as well as addressing issues faced by the Scottish Freight industry.

3. WHAT 'FREIGHT BEST PRACTICE' WAS IDENTIFIED IN SCOTLAND?

As part of the programme a series of Best Practice were identified from across Scotland, these are written up through a series of upcoming case studies that will be used for further disseminating best practice in Scotland, to both the Scottish freight sector and the wider British freight sector. The case studies are summarised in this section:

3.1 Case Study 1 – The Benefits of Operating Electric Vehicles in an Urban Environment.

Modern designs for battery powered delivery vehicles allow the likes of parcel and supermarket home delivery operations to utilise this technology on low

mileage high stop rate routes within inner city and urban areas, where historically 'white vans' have been used to carry out door to door deliveries.

As air quality in urban areas is of prime importance to Local Authorities and City Councils, a study of existing high profile parcel delivery by TNT vehicles employed in Scotland's capital city helps to promote the environmental and social benefits of the use of low emission or zero emission vehicles.

The study also includes a profile of Scotland's only electric vehicle manufacturer, Allied Vehicles based in Glasgow. This serves to show that technology and vehicle development of this form of vehicle and power train is being developed in Scotland.

Conclusions show that although constricted by the range of battery charge and top speed the benefits especially detailed through the reduced cost of fuelling show the advantages of electric vehicles over their diesel equivalents for city centre work.

3.2 Case Study 2 – Innovation in Scottish Timber Haulage – Tyre Pressure Control Systems (TPCS)

Scotland contributes nearly 75% of all softwood harvested in the UK, with 15% being produced in England and the rest between Wales and Northern Ireland. In the Highlands the demands placed on the local road infrastructure by this added HGV traffic have led to initiatives such as the Strategic Transport Timber Funds being established to help bypass local communities and avoid potential conflict between local residents and the timber industry.

Timber hauliers themselves are not exempt from their obligations to reduce the impact of their vehicles from both the public highway and privately owned and maintained forest access roads. As such Tyre Pressure Control System (TPCS) technology has been adapted for commercial use from the military, with on board tyre inflation units trialled on a number of trucks operating in Scottish forests. The TPCS system allows drivers to reduce the pressure of tyres on their vehicles to enlarge the tyre footprint and thus increase traction and reduce ground impact when on forest and minor public roads. The tyres are then re-inflated using onboard pneumatic systems before joining the public highway (which also ensures that the vehicles are operating at optimum tyre pressures for fuel economy whilst on asphalt). This Case Study profiles the use of TPCS by four companies in Scotland highlighting the operational benefits of such a system and provides detailed feedback from operators and drivers alike.

Typical advantages highlighted by this Case Study show that this technology reduces the need for maintenance to be undertaken in both forest and public roads, reduces vibrations of the vehicle and therefore those affecting the driver. The system has also reduced maintenance costs as well as having the

operating benefits of less 'bogging down' of timber vehicles and increased payload through lighter vehicle specification which in turn reduces fuel consumption and increases productivity.

3.3 Case Study 3 – Short Haul Rail Freight on Track for Profits in Scotland

It is a commonly held view that rail can only compete with road over longer distances in terms of operating costs. The difficulty is in determining where the 'break even point' comes and where rail becomes more economical than road. For shorter distances two of the challenges faced by rail freight are the tendency for longer end to end journey times and the need to double handle products where an onward road journey is required.

This Case Study attempts to break down the barriers between road and rail freight businesses by demonstrating that short rail freight routes can be cost effective even over short distances, even for just one container.

Within Central Scotland there are two services which contrary to this commonly held view; LaFarge Cement have a 72 mile bulk powder rail freight route from their plant at Dunbar to a batching plant in Uddingston, North Lanarkshire, and The Malcolm Group also provide a container/intermodal service from Grangemouth to Elderslee (Paisley) following a route that is only 43 miles in length.

The comparison between short haul bulk and multimodal freight haulage services in Central Scotland should be used to prove the investment in rail infrastructure and the desire by operators to employ modes other than road for the movement of freight. Both these services are operating at distances that are below the perceived route length of 100 km that operations become 'financially viable'.

Meeting the core principle of Freight Best Practice through emissions and CO2 reduction plus improved vehicle utilisation, these services are shown in this Case Study to remove over 11,000 HGV movements from some of Scotland's most congested road network and in doing so save over 1,200 tonnes of CO2 gases, as well as offering financial benefit to the companies operating them.

3.4 Case Study 4 – Fuel Saving in a Scottish Haulage Fleet

Too often road haulage operators are being so short sighted that they look no further than six feet in front of their front bumper, without resources or budget to throw at restructuring and investment plans to help them save money. The principles of Freight Best Practice in providing free information to operators to help them save money ensures that operators first have to invest in themselves, their staff and their capital resources before they can reap the benefits.

One such haulier based in Grangemouth, John Mitchell Ltd, have a proven track record of operating a large fleet of over 100 vehicles, the issues with such a large number of vehicles on the road is that even with the finest fleet management tools it is easy to lose track of who is doing what and when, plus how much are they costing the operator.

This Case Study shows how John Mitchell Ltd have employed a driver trainer who is accredited on an equivalent SAFED driver training course which has paid back 7% in fuel savings, over 340,000 litres of fuel and a total of 901 tonnes CO2 saving in one year.

The company has employed other best practice techniques with an Anti-Idling policy, successfully reducing idling time fleet-wide by 8% and in turn cutting the weekly fuel bill by £700 in 2008. Coupled with a vehicle procurement policy to ensure that state of the art manufacturer specification aerodynamics packages are fitted to all new vehicles this line of measures has paid the company back an estimated total annual saving of over 830,000 litres of fuel and over 1,200 tonnes of CO2, with a financial saving of £664,000. This Case Study is aimed at all road hauliers highlights simple measures many with little or no expenditure that reduce fuel consumption, and that free materials supporting such initiatives are available as part of the Freight Best Practice programme.

3.5 Case Study 5 –Innovation Secures Future at Rural Haulier

Working at maximum weight 44-tonne articulated vehicles are expected to return a healthy payload on each journey, as such unladen weight is crucial to maximise load capacity and hence profitability. The agricultural and rural sector places increased demands on machinery used and this Case Study profiles the investment in machinery and innovation for use in servicing agriculture and general haulage.

Andrew Black Ltd are a family owned and operated company based in East Lothian, their vehicle procurement programme includes the specification of alloy wheels and tanks to reduce the unladen weight of their vehicles, lift axles on tippers and curtain-sided trailers ensure reduced and unnecessary tyre wear. Savings on their ten tipper trailers over a 300,000km year through the use of lift axles is estimated at over 1% for a fuel saving of over 1,100 litres and nearly 3 tonnes in CO2.

Coupled to the latest in Fleet Telematics and Workshop tools such as wheel alignment and diagnostic machinery this operator has proven figures of reduced maintenance and workshop time, reduced vehicle downtime and increasing vehicle utilisation which have been highlighted in this Case Study.

Presented at the recent RHA AGRICON event the results of this Case Study have proven to be popular with HGV operators in the agricultural and construction sector.

4. WHAT ACTIVITIES WERE UNDERTAKEN BY FREIGHT BEST SCOTLAND AND WHAT DID IT ACHIEVE

Freight Best Practice Scotland has undertaken a range of activities these are summarised in the following section:

4.1 Marketing and Communication

Branding

The Freight Best Practice brand and programme had recognition by a number of the Scottish Freight Industry members due to marketing and communication activity that is continuously undertaken. As Scotland is a new geographic area the development of a specific Scottish brand has provided a strong sense of ownership and an individual Freight Best Practice identity for the Scottish industry.

The development of an effective marketing strategy, consistent with that of the existing programme and involving use of a range of communications medium to ensure maximum impact within the budget available, has been critical to promote the key campaigns. One of the key elements to Freight Best Practice Scotland's success has been the ability to raise awareness and to disseminate information through a variety of targeted routes.

Launch

A launch event took place at The Transport News Scottish Rewards Breakfast in Glasgow where Freight Best Practice Scotland was launched by Stewart Stevenson, Minister for Transport. Over 600 delegates from various haulage companies, HGV dealerships, the media and other associated industries attended Alistair Vallance Editor, Transport News also endorsed the program during closing speech. The Programme was also a main cover story on the following edition of Transport News, which was an ideal way of reaching our target audience.

Events

A series of Scottish 3rd Party Events were attended by programme staff throughout the year. This consisted of a range of speaking opportunities and engaging with the industry by use of an information stand. The events provided a great opportunity to raise awareness throughout the industry by attending events organised by the Freight Transport Association, the Road Haulage Association and The Traffic Commissioner amongst others.

Induction Document

A Freight Best Practice Scotland Programme Induction document was developed and designed to provide a specific introductory document to the

Scottish Freight industry, highlighting the benefits of the programme to existing operators. This has been disseminated to the industry and has also been made available on the website for download.

Website

A Freight Best Practice Scotland specific section to the Freight Best Practice website was produced www.freightbestpractice.org.uk/scotland which was branded with the new Scottish logo. This section of the website was developed to host information on the Scottish programme including all publications for the target audience, updates and press releases, a monthly newsletter and local event information.

Information Stands and Merchandising

New Freight Best Practice Scotland stands were produced in order to promote the programme and create further awareness when attending events. Branded merchandise which contained the programme contact details were procured and used for further awareness raising and ensuring ease of access to contact details for further information at events and various other interaction opportunities.

Press

Whilst enjoying access to the same press as other parts of UK, Scotland also has its own mainstream and sector press. A full press strategy was developed and executed which pro-actively promoted the programme, and its key messages and outputs. Local, trade, web and national publications are all targeted to keep the programme's name in the press. A proactive and reactive approach is taken and special attention was made to raise the awareness of the programme's launch in Scotland with editorials, features and press releases submitted.

A monthly newsletter is sent via email to all industry members whom have registered through the website. This newsletter contains information on Scottish events, programme updates and the launches of new publications.

4.2 Product Development

Site Specific Visits

Site Specific Visits (SSV) were an integral part of the Freight Best Practice Scotland Year 1 programme. The purpose of a SSV is to meet an HGV Operator on their own premises to discuss how the Freight Best Practice can help them achieve their commercial objectives. Companies were invited to take part in SSVs during public speaking events and through cold calling operators outside of the scope of trade organisations.

Key issues raised by HGV operators who took part in the SSVs were concern over the forthcoming obligations for Drivers CPC and the adoption of 'best

practice' in maintenance, vehicle procurement and driver information through better fuel management and performance monitoring.

During Year 1 of the Scottish programme six companies chose to participate in a Site Specific Visit with very different industry backgrounds including; construction, chemicals, bulk products, pallet services, food production and timber.

Geographically the six companies were located from the Scottish Borders, East Lothian, Glasgow, Aberdeen and Highlands. Of the companies visited two had fleets under 15 vehicles, two had fleets under 25 vehicles with the remaining considered larger fleets with 40+ vehicles. The total numbers of vehicles operating within the six operators totalled over 150, with an estimated 200+ drivers, as many of the vehicles operate on shift patterns with dayshift/nightshift drivers sharing the same vehicle.

Following the SSV a detailed report was produced to emphasise the most beneficial publications to that particular business type and fleet size encouraging the operator to act on the targeted area and to continue to access the Freight Best Practice material through the website, e-news and by contacting the hotline for advice and ordering further publications.

Awareness Survey

Following the launch of the Freight Best Practice Scotland, an Awareness Survey was conducted to determine the level of awareness of the programme. A very high level of awareness of the Freight Best Practice programme was observed with 48% of all operators being aware of the programme; this has been attributed to the extensive promotion of the launch of the programme and in particular the national trade magazine cover story (Transport News) as well as high exposure events such as Truckfest in England.

The Awareness Survey highlighted a range of issues for operators already aware of the Freight Best Practice programme such as the requirement for simpler more effective guides for the small operator, written in a similar manner to the driver specific guides. Another issue was the raising of the profile of the programme through improved contact with the industry. These have subsequently been addressed through Year 1 of the Scottish programme with an extended Calendar of events and six successful Site Specific Events held on operators' own premises.

4.3 What benefits were accrued?

At the programme inception it was felt likely that benefits experienced in Scotland would be similar to the benefits experienced by English operators. These benefits have been identified by an independent impact assessment in 2007 as:

- An 80% increase in awareness of Freight Best Practice since 2005, with six out of ten managers of large road fleets aware of the programme;
- Fleets which utilise the Freight Best Practice programme save on average £20,500 per year;
- Industry savings directly attributable to the use of Freight Best Practice programme material totalled £83 million over the last two years; and
- The programme has resulted in a reduction in CO₂ emissions of more than 240,000 tonnes over the last two years (for England).

Whilst an independent impact has not been undertaken yet for Scotland, our internal assessment has utilised the same methodology, the Project Evaluation Tool, as employed for the main programme.

The Programme Evaluator Tool used has been specifically designed to show how the independently assessed benefits of Freight Best Practice can be attributed to the past actions of the programme using the DfT Impact Assessment 2007 CO₂ figures and Freight Best Practice Year One and Year Two Publications order and download figures, and thus model the impact of current activities.

From this methodology, the following aggregated benefits for the whole of Scotland have been estimated, a total operator cost saving of £1,558,772 and an associated reduction in CO₂ emissions of 4,465 tonnes, in the first year of the programme. It is anticipated that these benefits will grow in the future as Freight Best Practice Scotland becomes more embedded in the Scottish freight sector.

5. WHAT WILL HAPPEN IN THE FUTURE?

Freight Best Practice Scotland intends to build upon the success that it has had in the first year, the activities that have been planned will be split into communication and marketing, and product development.

Many of the same continuation activities will be carried on into Year 2; this will provide continuity to the audience and help build confidence in the information that is provided through the programme, these include the eNews, the Website and attendance at various appropriate industry events. It is also intended that the programme of Site Specific Visits will be continued as this provides a great opportunity to obtain direct feedback on the experiences of operators in Scotland.

Continuing the drive to awareness raising is an ongoing issue and in light of that, our core audience will be targeted through the Truckfest Scotland Event in the summer and also focusing particularly on local authority operations through the APSE event, as there is often a lot improvements that can be made outside the commercial environment, where cost pressures are less.

In terms of specific product development, we are focusing on Pocket Guides and Lite Guides, which are geared specifically to the need of local operators, which was identified as a particular gap in our materials. The topics that will be covered are likely to include, bad weather driving pocket guide, an urban driving pocket guide and a 'last mile delivery' lite guide. There are also going to be two new areas of research, on collaboration and waterborne freight, with associated case studies.

6. CONCLUSIONS

The Freight Best Practice Scotland has delivered in its first year tangible benefits to freight community in Scotland, by providing information on improving their operational efficiency, has assisted them with controlling and reducing their fuel costs and generally improving their operations. Furthermore the programme is also important as it supports the 'Greener', and 'Wealthier and Fairer' aspects of the objectives of the Scottish Government, as well as indirectly contributing to improving safety through a reduction in HGV miles.