



Scottish Association for Public Transport

SCOTTISH TRANSPORT MATTERS

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Transport Seminars and SAPT AGM Friday 5th April 2019 Perth

Soutar Theatre, A.K. Bell Library, 2-8 York Place, Perth PH2 8EP

10.30 Coffee/tea

11.00 Introduction Stewart Stevenson MSP

11.10 Guest Speaker Tom Harris

Former MP and Minister in the Department for Transport, Tom Harris is the author of "Is Scotland on the Right Track?", an independent report on Scotland's railways. Tom has been appointed to the influential UK Rail Review Panel by Westminster Transport Secretary Chris Grayling. Tom will give us an insight into current transport issues



12.00 Powering Future Transport

David Murray-Smith, Emeritus Professor of Electronics & Electrical Engineering, University of Glasgow. Moving from oil to low carbon energy for transport raises issues of power generation and distribution particularly for road vehicles. David compares electric power, battery, hydrogen, super-capacitor etc and discusses the implications for the national grid, rail electrification, and domestic power supplies.



12.45 AGM Business Meeting (SAPT members only)

13.00 Close

Next Members Meetings: [Inverness Tuesday 18th June 2019 14.00 Mercure Hotel Church St](#)
[Glasgow Tuesday 8th October 2019 18.00 Mercure Hotel Ingram St](#)

The Williams Rail Review was set up in September 2018 by UK Secretary of State for Transport Chris Grayling following a series of franchise failures, the May 2018 timetable failings affecting Thameslink and the North of England train services, and Network Rail overspending on Great Western electrification. However the changes expected to be recommended by the review are likely to affect the franchising model used for ScotRail and Anglo-Scottish rail services, and the organisation of Network Rail.

In Scotland, the Edinburgh Glasgow Improvement Programme is now nearing completion. Transport Scotland's £700M infrastructure investment implemented by Network Rail has compared well with electrification south of the border.

But ScotRail train cancellations (now improving), and overcrowding due to late delivery by Hitachi of electric trains and by Wabtec of refurbished HSTs, compounded by Network Rail signal failures, has generated negative media headlines. The major launch of new trains and services, together with infrastructure modernisation, should have boosted the profile of rail travel but has done the opposite and led to Transport Scotland having to demand a remedial plan from Abellio ScotRail.

Some critics have demanded nationalisation as the panacea to these problems. But Network Rail (NR), responsible for over half of ScotRail service disruptions, is already nationalised. NR Chief Executive Andrew Haines (not to be confused with ScotRail Managing Director Alex Hynes!) is restructuring Network Rail and setting up a Scotland Region with its own Managing Director. This should improve NR performance in Scotland. But further integration with ScotRail may be desirable.

Response to Williams Review

In response to the Williams Review, the SAPT committee will consider four draft recommendations:

- **Full integration of infrastructure** installation and maintenance with ScotRail train operation, ensuring that equipment and train service reliability and passenger satisfaction is given top priority in procurement decisions. Network Rail Scotland Region would become a division of ScotRail. Anglo-Scottish routes in Scotland could be potentially be integrated with the North Route of the London North Western Region, and the East Coast Route within the Eastern Region.
- **ScotRail timetables** to be designed by ScotRail in collaboration with the Rail Freight Group and Transport Scotland, simplifying the current complicated iterative procedure involving also Network Rail in Milton Keynes and the Office of Rail and Road in London
- **Replacement of the franchise model** to end the need for bids based on uncertain assumptions about future economic and passenger growth. A concession model with the concession holder paid a fixed service charge or percentage of revenue would be one alternative.
- **The contract period** for Abellio ScotRail will last only 7 years from April 2015 (with possible 3 year extension). But due to late delivery of the new electric units and refurbished High Speed trains, the promised Inter7City flagship services are not now expected to start until December 2019, almost 5 years into the franchise contract. Longer contracts, such as the 20 year Chiltern Trains contract, have performed well, attracted investment in trains and new track, and reduced the frequency of potentially disruptive changes in management. A contract of 20 years would also be a better match for the initial leasing period of new trains for the next franchise/concession.

The SAPT committee is due to discuss and finalise our response to the Williams Commission in April.

Tom Harris, member of the Williams Review expert panel, former UK Transport Minister and now an advisor in the Reform Scotland think tank and director of Third Avenue Communications, will give his views on rail and other Scottish transport issues in his presentation to the SAPT Transport Seminar on April 5th.

Cars and Vans

The environmental and political imperative to “de-carbonise” transport could lead to a revolution in road and rail power. Scotland’s First Minister Nicola Sturgeon has pledged to phase out petrol and diesel car sales by 2032. What are the implications of this?

But there is a long way to go. Only 4800 new hybrid or electric vehicles were registered in 2016, compared with 270,200 motor vehicles registered (1.8% hybrid/electric).



Will a move to electric cars increase the popularity of lightweight vehicles?

Buses

Diesel buses contribute significant NOx and particulate pollution in city streets, in addition to CO₂ emissions.

The latest Enviro VI diesel engines cut NOx emissions but to significantly reduce CO₂ alternative fuels including hydrogen, battery or mains electricity (trolleybuses) need to be considered for city or suburban routes. But the capital and running costs of these technologies could have an impact on the viability of bus services unless publicly funded capital grants are made available.



Aberdeen has pioneered a hydrogen bus project with First and Stagecoach.

Trains

Rail is seen as environmentally friendly. But with road transport predicted to reduce dependence on oil, rail’s perceived “green” advantage will be eroded unless electrification is extended, and alternative power sources are perfected for routes where electrification cannot be justified. A battery operated Vivarail train demonstration was described in “Scottish Transport News 2018/4”. Hydrogen fuel cell technology is now being developed for trains in the UK (see right).



Alstom have converted a Class 321 electric train to hydrogen power.

Where are we heading in terms of private and public transport and what are the implications of some of these possible changes?

What are the real costs in terms of carbon dioxide and other harmful emissions for different modes of transport?

Not least, how can the electrical power generation and distribution industry cope with a large-scale change from road vehicles with internal combustion engines to electric vehicles?

Making accurate predictions is hard. History shows that many past predictions have turned out to be very inaccurate. Decisions should be made using the best available information.

Professor David Murray-Smith, Honorary Senior Research Fellow and Emeritus Professor School of Engineering, University of Glasgow, has researched these issues and has agreed to present his findings at the SAPT Transport Seminar on April 5th.

David’s presentation will draw together information about costs and benefits of different transport options, as well as providing an outline of some relevant developments taking place within the UK and other parts of the world. The emphasis is on rail and road options, but issues concerning ferry and air transport within Scotland are also covered.

The **Inter7City** network will get a boost in capacity, comfort and speed when ScotRail's HST fleet is fully introduced by the end of 2019 following the delayed Wabtec upgrade programme. Edinburgh-Glasgow and Edinburgh/Glasgow-Stirling routes are already benefiting from the new Class 385 electric trains as these are phased in. From May 2019 Edinburgh-Dunblane journey time will be 49 minutes compared with over an hour at the moment.

But the **Perth to Edinburgh** InterCity train service is limited to hourly frequency by the single track line to Ladybank. Perth trains take around 75 minutes to reach Edinburgh via the Forth Bridge. Comparisons show that Perth-Edinburgh is the least competitive InterCity rail route in Scotland, both in terms of journey time compared with car, and service frequency.

Long term prospects: There are two alternative proposals by Transform Scotland and Greengauge 21 for new lines across Fife towards Perth. Transform proposes a new line from Halbeath to Bridge of Earn, tunnelling under the Ochil hills. Greengauge's "Beyond HS2" proposal includes in addition a new bridge across the Tay west of Perth. It may be possible to follow part of the former Edinburgh-Perth route from Cowdenbeath via the Glenfarg Tunnel to Bridge of Earn, which was closed in 1970, but this 22 mile route was not suitable for high speed running and has been extensively used for the M90 motorway. SAPT recommends that Transport Scotland's forthcoming Strategic Transport Projects Review (STPR) should analyse these options. However, with a price tag in the £billions, this is likely to be a long term prospect.

Perth Electrification by 2024

Extension of electrification from Dunblane northwards to Perth, as part of a rolling Scottish InterCity electrification strategy, could bring improvements to Perth within a shorter timescale during CP6 (2019-2024). Edinburgh-Perth journey time could be cut to around 70 minutes via Stirling with 8 intermediate stops. Edinburgh-Perth train **frequency would be doubled** to two per hour (one diesel via Fife as now, plus one electric via Stirling).

A future limited stop Edinburgh-Perth time of 60 minutes would be possible, allowing Edinburgh-Inverness trains via Stirling to **reach Inverness in less than 3 hours**.

Electrification from Dunblane to Perth (28 miles) would cost in the order of £108 M at a target cost of £1.2 M per single track kilometre. However, modernisation of the track and signalling is also needed at Perth, as illustrated in the photo of a freight train threading the speed restricted junction to the south of the station. This work would add to the cost, but is long overdue.



Extension of Edinburgh-Dunblane services (seen above with Class 365 electric trains) to Perth would double Edinburgh-Perth frequency to two trains per hour. Photos: J.McCormick



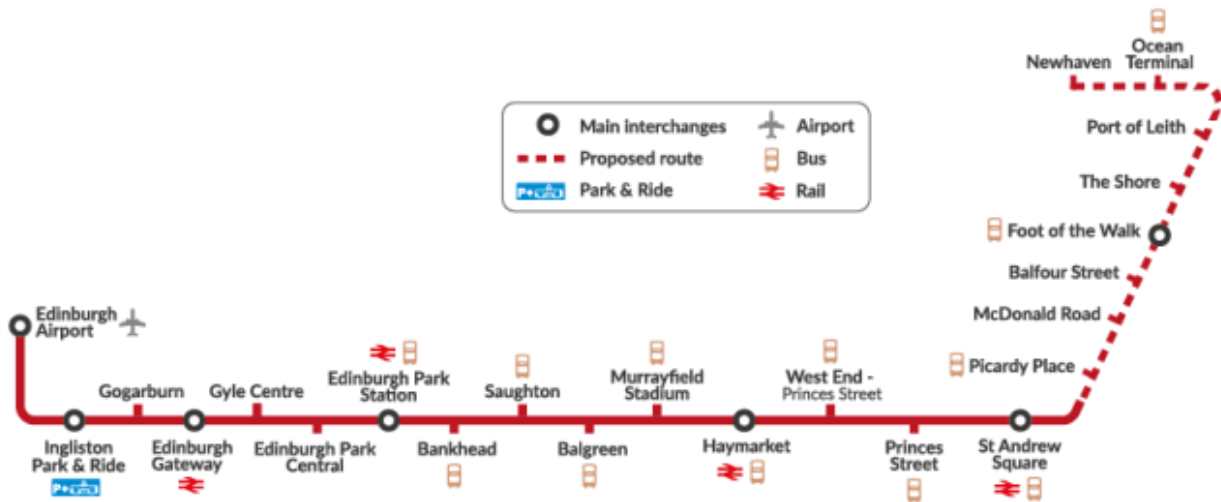
Track and signalling at Perth need upgraded. This view is the main line south of the station.

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Edinburgh Tram Extension

On 22nd February 2019 **Edinburgh City Council** released the final business case for extending Edinburgh Tram Line 1 to Leith and Newhaven. The 2.9 mile extension will have a £196 M budget. The full system is expected to carry 16 million passengers in the first year. (7.2 million journeys were made on the York Place-Airport section in 2018, a 10% increase on 2017).

The extension is expected to open by 2023, unlocking a large area of the city for housing and employment. The council already has powers under the Edinburgh Tram (Line 1) Act. Trams will initially run every 5 minutes, increasing to every 4 minutes by 2032.



The tram route will play a key part in transforming the city centre. Motorised traffic will be reduced on Leith Walk and Princes Street, and walking and cycling provision will be improved to the Foot of the Walk. Extending the tram will reduce CO₂ and pollution in the city. A final council decision is expected on 14th March. Conservative councillors oppose the tram extension, but it is supported by SNP and Labour.

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HS2

HS2 Ltd and Scottish Enterprise held a conference in Glasgow on 28th February to highlight the opportunities for Scottish suppliers from the contracts now being awarded. 160 businesses and stakeholders attended the event. The Spanish rail company Talgo also outlined their plans for a new train manufacturing plant at Longannet. This depends on obtaining UK orders. Talgo are bidding to construct the high speed trains for HS2.

The issue of continuing negative coverage from some press and TV sources was raised, most recently the biased and misleading “Great Train Robbery” Despatches programme broadcast on 11th February. A documentary shown on the same day described the Channel Tunnel as a “wonder of the world”, yet paradoxically the Channel Tunnel also received destructive press coverage during its construction. It seems that any significant project in the UK will attract media predictions of failure at every opportunity!

SAPT Chairman John McCormick has written to Secretary of State for Transport Chris Grayling underlining the importance of more publicity for the positive aspects of HS2. These include faster Anglo-Scottish rail journeys thus reducing domestic flights and CO₂, and more jobs during construction, as well as economic benefits and rail capacity freed up on the existing rail network for freight and local services. With BREXIT already destabilising the economy, is this the best time for “naysayers” to be undermining Europe’s biggest infrastructure project?

By Tom Hart

AVIATION

Following the collapse of FlyBMI, Loganair has taken over its former routes from Aberdeen to Bristol, Oslo and Esbjerg. Loganair has also secured the City of Derry Airport – Stansted route which is subsidised. Loganair is also considering a Manchester route from the Northern Irish airport.

Airports are being encouraged to step-up their own anti-drone measures after recent problems at Gatwick and Heathrow – they cannot continue to rely on aid from Army staff and technology. One recent incident has been at Glasgow Airport (H19Jan)

NHS Highland is planning to hire private drone operators to drop off supplies at GP surgeries, hospitals and care homes – also possible drone use for supplies to islands (H31Jan)

Passengers at Edinburgh Airport grew 6.5% to a new record 14.3m in 2018.

Glasgow had 9.7m passengers in 2018 a drop of 2.4% on previous year influenced by most Ryanair flights moving to Edinburgh. It is stepping up pressure for a link to the rail network, following cancellation of the second attempt at a rail link using TramTrains due to congestion into Glasgow Central. SAPT have suggested an alternative Light Rail route via Renfrew to Glasgow Central and Queen Street stations. Glasgow expects to reach 12.8m in 2028 and 16.8m by 2040 (study by York Aviation). Aberdeen Airport passengers fell 1.4% to 3.1m. As well as Brexit concerns, there are fears that a wider global slowing of economic growth (including China) may slow growth in air travel. Growth in air travel to and from Sweden has stalled following introduction of an aviation tax (H11Feb)

FERRIES & SHIPPING

Increasing vehicle traffic and continuing problems with delivery of CalMac's two new vessels are creating a crisis for ferry users on some island routes. The Islay whisky industry has been particularly affected during the overhaul period of the ferry "Finlaggan" as the island has had to make do with the older and smaller ferries "Isle of Arran" and "Hebridean Isles". Meanwhile Jim McColl has confirmed that Ferguson Marine, builders of the new "Glen Sannox" for Arran and other new vessel for the Uig triangle, is to pursue a compensation claim against Caledonian Maritime Assets over changes to the vessel design which have allegedly contributed to cost overruns.

Scottish cargo, cruise and fishing ports remain buoyant despite Brexit and may actually benefit. Major expansion of Aberdeen Port will be completed in 2020. Grangemouth has seen further investment as Scotland's major container port (H Special Review 29Jan)

Prestonpans Community Council is campaigning for conversion of former Cockenzie Power Station as a cost-effective, well situated cruise terminal (EN30Jan) Expanded coverage is in H 12 Feb saying site could accommodate larger cruise ships and also a berth for a nightly service to the continent.

Transport consultant Roy Pedersen has given detailed advice on port layout and costs

Cruise Scotland reports a 16.7% rise in yearly passenger numbers to almost 800,000 in 2018 involving 825 ships. This is expected to rise to around 1000 ships and 920,000 passengers in 2019

Ferry ramps on Coll and at Tarbert on Harris require major repairs. Half of CalMac ships have now served more than their 25 year lifespan. Islanders on Mull also claim that the pier at Craignure needs repair but owner Argyll and Bute Council has taken no action. CalMac's Community Board has attacked Scottish Government plans to increase peak-time fares on west coast ferries.

Plans to return Maid of the Loch to operate on Loch Lomond had a setback when the vessel slipped back into the water when being taken out for major renovation.

In Edinburgh, the Leamington Lift Bridge on the Union Canal, closed since summer 2018, is to be repaired, helped by a £350,000 grant from the Sustrans National Cycle Development programme funded by Scottish Government. The canal reaches its bicentenary in 2022. Scottish Government funding has also allowed work to start on repair of two Forth and Clyde Canal Bridges by April 2019.

RAIL

To cut construction and operating costs HS2 trains on new track may run at 200mph or less compared to original plans for 225mph top speeds (H14Jan). Plans have been approved for HS2 Phase 2a from the West Midlands to Crewe. Phase 2b onwards to Manchester, Wigan and from Birmingham Airport to Leeds may be varied to take account of pressures from Transport for North (TFN) for upgrades of trans-Pennine routes and other improvements in the north-east, towards Liverpool and on the East Coast route (LTT765 1Feb p12).

Transport Scotland has consultants working on plans for high-speed routes east from Glasgow into Lanarkshire giving improved access south via Lanarkshire and to an upgraded Edinburgh-Newcastle route – timescales not stated but completion may be early 2030s. (LTT765 1Feb p7) Glasgow retains an interest in 3 hour timings to London via West Coast route, also improving access to Manchester and Birmingham.

Abellio ScotRail has had a torrent of complaints about late-running, overcrowded and cancelled trains leading to pressure for it to be stripped of its franchise along with the extension of nationalisation (already applying to Network Rail) to passenger train operation under Scottish Government control. UK government has appointed Williams to undertake a priority review of rail structure and operations while Labour has appointed transport academic Prof Phil Goodwin to advise on wider reforms of UK transport provision and how it is paid for and funded. Goodwin expects to report early in 2021 with his report considered as part of the Labour manifesto for the 2022 General Election (LTT765 1 Feb p1 &25)

Some commentators see criticism of Abellio as unfair - about half of recent rail troubles can be attributed to Network Rail Scotland infrastructure and signalling deficiencies. However, problems since December were worsened by delays in delivering the 70 new electric trains sets ordered by Abellio, other delays in bringing refurbished HSTs into service on internal Scottish Inter-city routes and the introduction of a large expansion of Central Belt services and longer trains in mid December. Problems are easing as more new trains arrive with staff training completed but it may have been wiser to delay large timetable changes in December. Train cancellations had fallen by February. Trains on time fell to 79% in December, were back to 84.2% in January with 92.5% of trains expected to be on time by March 2021

David MacBrayne Ltd (already publicly owned and owner of CalMac) has been asked by the Transport Secretary to consider a bid for ScotRail if Abellio is stripped of the contract (H8Feb)

Transport Secretary Michael Matheson has admitted January fare rises were 'unwelcome' (H4Jan) while former Scottish Labour leader Kezia Dugdale has complained that 'affordable rail travel has hit the buffers'. Many fares were far higher than on continental Europe (EN8Jan). Another letter-writer from Dunbar asked 'why can't public transport be free' (H28 Jan) as the benefits of abandoning cars, especially in cities, would be huge.

To improve customer care recruitment problems, Abellio is planning to move office staff from Fort William to Glasgow. There may be opportunities for more local staff with rising tourist use of rail on the route to Mallaig including the Glenfinnan viaduct. Greater use of the local ScotRail service, with more trains operating and new work on footpath links to assist viewing the Glenfinnan viaduct could ease problems of too many tourist using their cars to access Glenfinnan and requiring parking space. Local and national groups are joining to develop plans to further increase rail modal share (H12 Feb).

Pending repairs to substructure, Cairngorm Funicular Railway, opened in 2001, will remain closed at least until start of next winter

Network Rail has appointed Amco as main contractor for a £13m enhancement of Dunbar station. The Campaign for Borders Rail is seeking both Scottish and UK Government support for a rail extension from Tweedbank through Hawick to Carlisle. Users of Borders Rail say overcrowding has reached its worst ever level due to rising usage and delays in shifting diesel trains to raise capacity between Edinburgh and Tweedbank (EN7Jan)

Glasgow Airport sees its future growth, and eased congestion on M8 west from Glasgow, as dependent on a direct link to the national rail network (H30Jan) while an article in Rail 871 30 Jan p70-71 says that plans for extra road capacity into Edinburgh Airport need to be complemented by construction of a rail chord south of Dalmeny giving direct access from Falkirk, Stirling and Glasgow Queen St to Edinburgh Gateway station with its direct tram link into the Airport.

Transport Minister Michael Matheson has again explained to MSPs that the Glasgow Airport rail link plan was cancelled due to lack of capacity for additional trains between Paisley and Glasgow and similar problems at Glasgow Central station. However the Strategic Transport Projects Review (STPR) will consider these issues, including use of bus priorities to cut congestion on the M8 and restudy of options for an airport rail link including a Crossrail (a reopened City Union route) linking rail networks to the south and north of Glasgow (H 8 Feb).

In discussions with Transport Minister, Council leaders and airport bosses have agreed to examine a new proposal for a high frequency, segregated Personal Rapid Transport link from Glasgow Airport to Paisley Gilmour St rail station. Stuart Patrick of Glasgow Chamber of Commerce has attacked this as an ineffective 'toytown' solution (H1Feb) Others argue that the present express bus link using the M8 is a good service despite some considering 'bus travel beneath their dignity' SAPT's "ClydeMetro" proposal for a Light Rail Metro from central Glasgow to Glasgow Airport via the QUEH and Renfrew is an option deserving further development.

Scottish Greens seek faster action to provide step-free access at rail stations. Only 40 of 350 stations in Scotland are officially 'step-free', aided by lifts and ramps (EN 27 Dec). A further issue is that, though level entry from platform to train is becoming a standard feature of tram and light rail systems, progress is much less on the national rail network due to technical issues arising where there is a mix of stopping trains and express trains, and by curvature on station platforms.

The Flying Scotsman steam locomotive will make a historic return to Inverness in May but with return fares from Edinburgh between £699 and £999 per person

BUS, TRAM & TAXI

Aided by frequency every 3 minutes at peak periods and never less than every 10 minutes, usage of Edinburgh trams in past year has risen 10% to 7.3m journeys. Decisions on an extension to Newhaven are imminent. The basis of funding is being changed so that future accounts will show an overall financial loss (including an £8.5m annual contribution to infrastructure maintenance) but with losses covered from additional borrowing repaid from future profits. Accounts exclude estimates of environmental benefits (LTT763 4Jan p21).

First Scotland East has bowed to public pressure to restore Edinburgh-Linlithgow daytime service, cut to 2 per hour, back to 4 per hour. First Bus is also seeking to recruit more female drivers.

Contactless payment is now possible on Lothian Skylink buses. 23 smaller Scottish bus operators are getting almost £500,000 of Scottish Government funding for contactless fares payment.

Lothian Buses are celebrating 100 years of publicly-run buses in Edinburgh. The former Edinburgh Corporation Transport added buses to the tram network in 1919 with the last line in the former tram system not closed until 1957

Ministers have announced over £1m of funding for green buses in Glasgow's first Low Emission Zone (LEZ) (LTT763 4Jan p13). Scottish Green Bus Fund has already paid out £16m to aid purchase of more environment friendly vehicles. Electric buses are to be trialled on a rural route in Moray, running between Aberlour and Forres via Knockando with European INTERREG funding

Edinburgh cabbies are objecting to higher fees for retesting vehicles. City councillors are devising a scheme to expand electric taxis and private hire vehicles. Charging points will increase with 211 planned across the city by 2023 costing £3.3m. Electric taxis were not allowed in Edinburgh until 2015 but Council aims to have 623 electric taxis and private hire vehicles operating in the city by 2023. Taxi operators attack these proposals as unrealistic, actually reducing chargers available for taxis and imposing a higher connection fee for using chargers than the £1 fee for residents. The taxi trade is also being hit by 'pirate' operators.