



Sixty Years of
Accessible
Transport

Innovation and Infrastructure in the Bus Industry

In the first half of the 20th century, mass transport was provided in the great cities and urban areas by trams, trolley buses and railways. Motor buses gradually replaced trams and trolley buses in the 1950s and were the obvious choice to serve the massive urban housing estates built in the post war period.

Describing the bus industry in 1952 and its development since, in terms of vehicles, operations and technology, shows the extent to which it reflect social and economic change in the North East over the last sixty years.



The Bus Industry in 1952

In the first half of the 20th century, car ownership was relatively low and mass transport was provided in the great cities and urban areas by trams, trolley buses and railways. Buses, however, needed little in the way of dedicated tracks or roads and it was this very feature that saw them replacing trams and trolley buses in the 1950s.

The bus industry in 1952 was what many advocates think of as its 'golden age'. Bus travel was at its peak as the UK entered a period of relative prosperity following the post-war austerity. Most bus operators, even in rural areas, made a profit.

People had more disposable income but cars were still out of their reach. They used the bus to travel to and from work and with heavy industry dominant, work was often located along the river banks in the north east. With television still relatively new, entertainment and leisure were largely based outside of the home and people used buses to take advantage of these activities.

The vast majority of bus services in the larger urban areas of the north east, with the notable exceptions of Gateshead and parts of North Tyneside, were owned and run by the highway authorities, who also looked after the road network. Elsewhere services were provided by 'company' buses, either United, which was then part of the nationalised Tilling group or Northern, part of the private British Electric Traction (BET) group.

However, the north east also had a strong tradition of independent bus operators with famous names like Economic of Whitburn, Bishop Auckland based OK Travel or the delightfully named Cosy Coaches of Langley Park servicing areas where 'coal was king'.



The buses themselves were mainly the traditional half cab double deckers with the engine at the front, an open rear platform and staircase usually seating 56 people in a very compact 27ft by 7ft 6ins (approx 8m by 2.25m) with a crew of two, a driver and conductor.

Crew operation meant that dwell times at stops were short. In rural areas, the bus may well be a single decker (or saloon) but still with the engine at the front and occasionally with a crew of one. Bus infrastructure, such as it was, was largely a pole and a flag at each bus stop. There was little need to mark the stop on the carriageway as there were few cars parked on the road in those days. Some stations were provided at large industrial centres to cope with workers at the end of shifts.

Town centre bus stations were common, but it was usually the ‘company’ buses that benefited from these as it was the United and Northern bus companies who provided the bus stations in most of the major towns. Northern for example provided the former Worswick Street bus station in Newcastle.

Vehicle Design

The traditional half cab double decker was a remarkably simple and rugged design which essentially evolved from the horse bus, with an internal combustion engine replacing the horse. Even in the 1950s, there was an aspiration to achieve a lower floor for ease of boarding. The Bristol Lodekka was an early attempt to address this within the traditional configuration. However, the easiest way to get a low floor was to put the engine at the back of the bus and in 1959 the Leyland Atlantean appeared.



The Atlantean changed everything, with the engine at the back and the entrance at the front. With powered doors, the driver could supervise the platform and (eventually) take the fares and issue tickets. 30ft long (9m) double deckers became legal in 1956 so the Atlantean was a much bigger beast seating over 70 passengers.

Along with its competitor the Daimler Fleetline, it quickly found favour with operators. Newcastle City Transport in particular took large numbers to replace the city's trolleybuses. The traditional half cab didn't go down without a fight. The United bus company operated large numbers of Bristol Lodekkas with front entrances whilst Northern become the only operator outside of London to operate the Routemaster, albeit in front entrance form.

In infrastructure terms, the move to larger front entrance buses often meant finding new locations for bus stop poles and providing better lighting on bus routes. Heavier buses required stronger road construction. A dense bitmac surface and sodium (yellow) lighting was then a sure sign a road was on a bus route. Until recently, buses would not enter housing estates, except on the wider roads.





In more recent years the requirements of the Disability Discrimination Act (DDA) along with parallel EU directives have led to the widespread introduction of low floor buses. In order to take full advantage of these, kerbs have been raised at bus stops and in places specially designed kerbs such as the Kassel Kerb have been used to enable the bus to get as close to the stop as possible without damaging the tyres.

Continental style articulated buses have not been used to any significant extent in the north east. Where they have been introduced, particularly on the X66 Gateshead Interchange – Metrocentre Route, modifications to stops and bus station stands have been required to accommodate their extra length. To assist this route, a dedicated busway was built along the south bank of the Tyne to allow buses to avoid congested roads and enable quicker journey times.

Changes to Highway Infrastructure

Changes in how buses operate have had a corresponding effect on the highway infrastructure over the past 60 years. For example, switching from crew to driver- only operation, along with increasing traffic levels, meant turning at termini using a reversing manoeuvre became increasingly unsafe. This resulted in the provision of turning circles at the outer termini of many urban routes.

The philosophy of traffic management was to use all available capacity and keep traffic moving. Bus laybys at bus stops were therefore increasingly provided in the late 1960s and early 1970s. However, the time taken to pull back out of a layby into the flow of traffic added to the operational time and running costs.

By the mid 1990s, the philosophy had changed to giving priority to buses. Rather than laybys, build outs were provided at bus stops which overcame the difficulty of parked cars at stops. In this respect, the fact that other traffic had to wait whilst passengers boarded the bus meant that the bus acted as an additional form of traffic calming measure.

One-way gyratories to speed up traffic generally had become common in cities but these caused delays to buses negotiating them. To avoid that and also to provide stops where passengers actually needed to be, contra-flow bus lanes were increasingly provided in town and city centres in the 1970s.



In the 1990s this approach was taken further restricting some carriageway space to buses (in bus lanes) in order to give them greater priority and shorten bus journey times on increasingly congested roads. Sunderland's Durham Road 'Superoute' was an early example of this in 1998 whilst similar measures were introduced along the Durham Road corridor in Gateshead and in most towns in the North East.

Dedicated bus-only links have been provided over the last 60 years to avoid circuitous routing, for example, in each of the Washington New Town village centres. Elsewhere new links enabled buses to serve business parks and adjacent residential areas. These were often protected with a riseable bollard. An example of this is between Doxford International and the adjacent Moorside estate in Sunderland.

Changes to Passenger Infrastructure

Not all infrastructure provision is for the benefit of bus operation. Developments have also occurred for the comfort and convenience of passengers.

In the early bus period, shelters were only provided at town and city centre locations, or where large numbers of passengers were expected, such as seaside resorts. By the 1970s, the realisation that shelters could provide space for advertising for passing traffic meant they were provided by companies such as Adshel at no cost to the operator or the local authority. Stops with no previous benefit for a shelter could now be provided with one.

Bus stations in 1952 were largely provided by the operators but few examples of these exist today. Now bus stations and, more importantly, facilities for interchanging between different modes of transport, is increasingly favoured by the local authorities and Passenger Transport Executives to encourage use of public transport.

In Tyne and Wear for example, provision of bus station interchanges at key Metro stations was a key part of the then integrated network. The interchange facilities at Gateshead, Sunderland, Regent Centre, Four Lane Ends and recently at Northumberland Park are good examples.

Changes in Technology

There have been a number of changes resulting from the industry adopting and embracing new technology. It has resulted in the emergence of a technical infrastructure.

Crime on buses is still relatively rare, but increasingly the availability of CCTV allows incidents to be recorded and investigated. This requires infrastructure both on the bus and at the depot with imaged being recorded electronically on a harddrive. The down side of this is that the bus has to be taken out of service for a few hours for the harddrive to be downloaded should an incident occur.

There has been a move to provide real time passenger information at bus stops since the mid 1990s.

These usually require a transponder fitted to the bus which is read by other transponders along the route and fed to real-time information displays at bus stops.



Changes to the Industry

In 1952 buses operated under a licensing regime under the 1930 Road Traffic Act. With the introduction of the 1968 Transport Act, there was even more political control as Passenger Transport Executives were formed to manage all public transport services on behalf of local authorities. The private BET companies were merged with the already nationalised Tilling companies to form the National Bus Company (NBC).

By the early 1980s, bus services were heavily regulated with routes approved under licence and integrated with the newly opened Tyne & Wear Metro system. Passengers were directed to Metro interchanges such as Regent Centre in Gosforth where they transferred onto the Metro to continue into Newcastle and Gateshead centres. Very few buses were permitted to cross the River Tyne as that was seen as a function of Metro.

However, the 1985 Transport Act brought deregulation. The NBC companies were privatised as were many of the municipal bus companies. New private companies emerged which are prevalent today.

Interestingly, all of the former municipals in the region (with the exception of Darlington) ended up with Stagecoach. Northern was bought out by its management and became the basis of the GoAhead group, which also took over the former OK Travel, which operated in County Durham. United, the Tilling group operator in 1952, was divided into Northumbria in the north of the region and United in the south. After leading separate existences for around 15 years, they came back together under Arriva. Almost all of the independent operators in 1952 were swallowed up by the big groups in the 1990s.



Private companies grew because of their ability to choose the services and times that were most profitable. On radial routes into town and city centres, there is demand for services during the majority of the working day and often into late evenings. However services to outlying estates, especially away from the peak travel periods often struggle, with few passengers, and so have to be subsidised by the local authority.

Today operators get subsidy through BSOG (Bus Service Operators Grant paid through fuel duty rebate) and from the concessionary fare scheme. The latter provides free travel for people over pensionable age, amongst others. It is controversial in some quarters. The operators see it as government paying the fares of certain passengers and no justification for taking service specification out of their hands.

Bus stations, where they still exist, are largely provided and managed by the public sector under integrated services. The Sunderland Interchange for example is built on the site of Northern's old Park Lane bus station and depot to include the adjacent Metro station.

The Future

Cars and taxis dominate our roads and provide a very flexible form of travel for large parts of the population. But public transport is still essential for many people and, as traffic demands increase, there is a corresponding desire to persuade the travelling public to use greener and healthier options: walking, cycling, railways, and, of course, the bus.

Buses as an alternative form of transport is an economic use of road space and it can therefore contribute to reducing congestion on the roads. It must however compare favourably with the private car in terms of cost, comfort, reliability and, not least, in their extent. This remains a key challenge for the future.

More information on the bus services can be found on the operators' websites.

Thanks to David Marshall, Director of Spatial Synergy Ltd for preparing this article. David's web site can be found at www.spatialsynergy.co.uk.

If you enjoyed this article, try also:

Building the Tyne and Wear Metro

Running the Tyne and Wear Metro

Railways in the North East

Railways in the North East

The North East is inherently linked to its railways. Through the transporting of coal and ore they shaped the industrial landscape of the 19th and early 20th centuries.

But the decline of those industries hit the railways hard, with many regional lines lost well before the infamous Beeching Report of 1963.

In the last 60 years the network has passed from private companies to British Rail, through privatised Railtrack and back to public owned Network Rail. For the region, it has meant line closures, conversion to other transport and handovers to volunteer enthusiasts. The rest have gone from strength to strength under the Train Operating Companies.



Original Ownership

North East railways, as with the rest of the UK, were originally private companies. Some were built for carrying passengers, others served agriculture, forestry, coalfields and other industries, with some doing both. Gradually the majority were taken over by four main companies – Southern Railway, the Great Western Railway, the London, Midlands and Scottish, and the London and North East Railway, which served our region.

During the Second World War these were managed jointly for the war effort. Great demands were placed on them with little maintenance of track or rolling stock. It came as little surprise when they were nationalised in 1948, becoming part of British Railways (later renamed British Rail).

After 1948 a programme of track and station renewal was started, to be completed in 1954. However that same year saw the privatisation of the road haulage industry, ending the formal co-ordination of transport. A profitable railway in 1948, British Rail became unprofitable as costs rose and revenues fell. The replacement of steam rolling stock with diesel and electric trains was begun in the late 1950s and not completed until 1968, at considerable cost. However this failed to arrest the decline in freight and passenger use.

While Governments continued to drip feed investment, a major shift in policy was taking shape. The result was the ‘Reshaping of Britain’s Railways (The Beeching Report)’, which was published on 27th March 1963.



Decline of the NE Rail Network

Prior to the 1950s, the railway network in North East England was extensive, beyond comprehension with what remains today. This is illustrated in the photograph of the North Eastern Railway, taken from a poster board at Morpeth Station, as shown overleaf. Note the lines to more remote towns such as Alston and Rothbury.

Car ownership was very low in the North East with the railways being popular for both leisure and work purposes. The coal industry in particular, built lines throughout Northumberland and Durham to take ore and coal to the rivers and coast for shipment. Agriculture and forestry also used rail, and a line ran from Scotland through Kielder and Reedsmouth to connect at Morpeth and Hexham.

By the 1950s, the once extensive network was already in decline, reflecting the national picture. There were many regional casualties, including the loss of passenger services at Reedsmouth to Morpeth, Scots Gap to Rothbury and Ferryhill to Hartlepool (all 1952). Durham to Scotswood and Newcastle to Blackhill followed in 1954 and 1955, respectively. The picturesque, but little used Riccarton Junction to Hexham met the same fate in 1956.

In the 1960s the pace of closures accelerated, with many regional lines succumbing to the 'Beeching' cuts. Routes that had remained open for freight traffic were now also closed, with track removed and property

sold for other uses. Further decline in mining and heavy industry in the 1980s and early 1990s signalled the end for the majority of the surviving freight lines.

Building a railway line had originally required an Act of Parliament, to gain access to land for track, stations and sidings. This was often resolutely contested, by the landowners at the time and, in many cases, resulted in conditions placed on the acquisition that returned land to its original owners, should the railway be disbanded. Thus when lines were closed the land was lost to public use. In rural areas many former lines are fenced off as fields for cattle or sheep.

However, significant parts of many lines remained in public ownership and have reverted to rights of way; footpaths or later cycleways. Unfortunately, in the majority of cases, the stone track beds and drainage systems were removed by the outgoing railway, and former tracks in cuttings often became quagmires.

In urban areas in particular, some former lines have been upgraded to high standard footpaths and cycleways, with appropriate surfaces and drainage.





More Recent Changes

The 1970s saw a major change on Tyneside with conversion of the suburban railway to the Tyne and Wear Metro system, bringing a light transit system to around 25% of the population. The original Metro was completed in 1984, extended to Newcastle International Airport in 1991 and the line to Sunderland and South Hylton completed in 2002.

Mainline passenger services experienced a renaissance with the introduction of the high-speed **Intercity 125** trains in the late 1970s and early 1980s. In 1955 the fastest Newcastle to London train was the Tees Tyne Pullman at 4hours 32mins but most services were between 5 and 6 hours. By 1980 the Flying Scotsman service had reduced this to 2hours 59minutes with another 11 direct services taking a maximum of 3hours 22mins.

The 1980s saw cuts in government funding to the railways and above-**inflation** fare increases. There was intensive pressure to make services more cost-effective. This was achieved, to a degree, with the electrification of the East Coast Main Line in the late 1980s, which provided faster, more reliable journey times.

Public support saved some further lines from closure. Despite the multi-million pound cost of restoring the Ribbleshead Viaduct, the Settle to Carlisle now admirably performs the dual function of working railway and tourist attraction across some of England's most breathtaking landscape.

Stephenson Railway Museum

Stephenson Railway Museum is managed by the North Tyneside Steam Railway Association and is located off Middle Engine Lane in North Tyneside. The area had a number of lines built by different mine companies to carry coal to the Tyne. Later, as British Rail lines, they were gradually closed, the last in 1983, and the tracks lifted. This was despite a short interlude in 1975 when the newly planned Metro system established a test track at the site.

At the time, there was virtually no experience of building and operating such a light-rail transit system in the UK. To test the viability of Metro, a 1.5 mile track was laid and a two road workshop built, which now



forms the rear half of the museum. The test track closed in 1979 and all equipment removed, leaving only the sheds. Between 1982 and 1984, North Tyneside Council acquired the as the nucleus for a transport museum.

Visitors can see the fascinating collection of steam, electric and diesel locomotives, including George Stephenson's 'Billy', a forerunner of the world-famous 'Rocket'. There are also train rides on Sundays and most Bank Holidays, hauled usually by a Pecket 0-6-0 steam engine, though occasionally a heritage 08 or 03 diesel is used.

Weardale Railway

The railway from Darlington to the Wear Valley first opened in 1847. Passenger services ended in 1953 but it continued to carry bulk cement for Blue Circle from Eastgate until 1993.

The Weardale Railway Preservation Society was set up immediately to prevent the railway's removal promote its future use. The company Weardale Railway Ltd was established and the 18.7mile (30km) track from Bishop Auckland to Eastgate in Weardale, acquired from Railtrack. In 2002, under the Transport & Works Act, permission was granted to recommence passenger and freight services.

Repair started almost immediately, and was carried out solely by volunteers and enthusiasts. It was a mammoth task, involving line clearance and repairs, including station restoration at Eastgate, Stanhope, Frosterley and Wolsingham. The work was not completed until 2010. In the meantime, the first limited operations commenced in July 2004 with hired locomotives and carriages. However this proved short-lived and financially unviable.



To keep the railway operational, a new Partnership was established – the Weardale Railway CIC.

The CIC – a Community Interest Company – is commercially run, with a 75% stake by British American Rail Services. The remaining share is held equally by the Weardale Railway Trust, who provide the volunteer workforce and skills and Durham County Council who retain the local authority interest following the abolition of Wear Valley District Council.

The line re-opened in August 2006 with both diesel and steam heritage services. A regular passenger service was attempted between May 2010 and December 2011 but withdrawn through lack of support, perhaps emphasising the stark reality of running a commercial rail operation in the early 21st century. Heritage services however flourished, and are now run throughout the year.

Current Ownership

British Rail was privatised and ownership of track and infrastructure passed to the new company Railtrack on 1st April 1994. Passenger operations were franchised to 25 individual Train Operating Companies (TOCs). Freight Services were sold outright.

Under the new arrangements, Railtrack let infrastructure maintenance contracts to private companies. However the separation of track and services to different organisations proved difficult to manage. Costs spiralled, train punctuality plummeted and a series of high-profile incidents, culminating in the Hatfield accident, meant public confidence in rail travel collapsed.

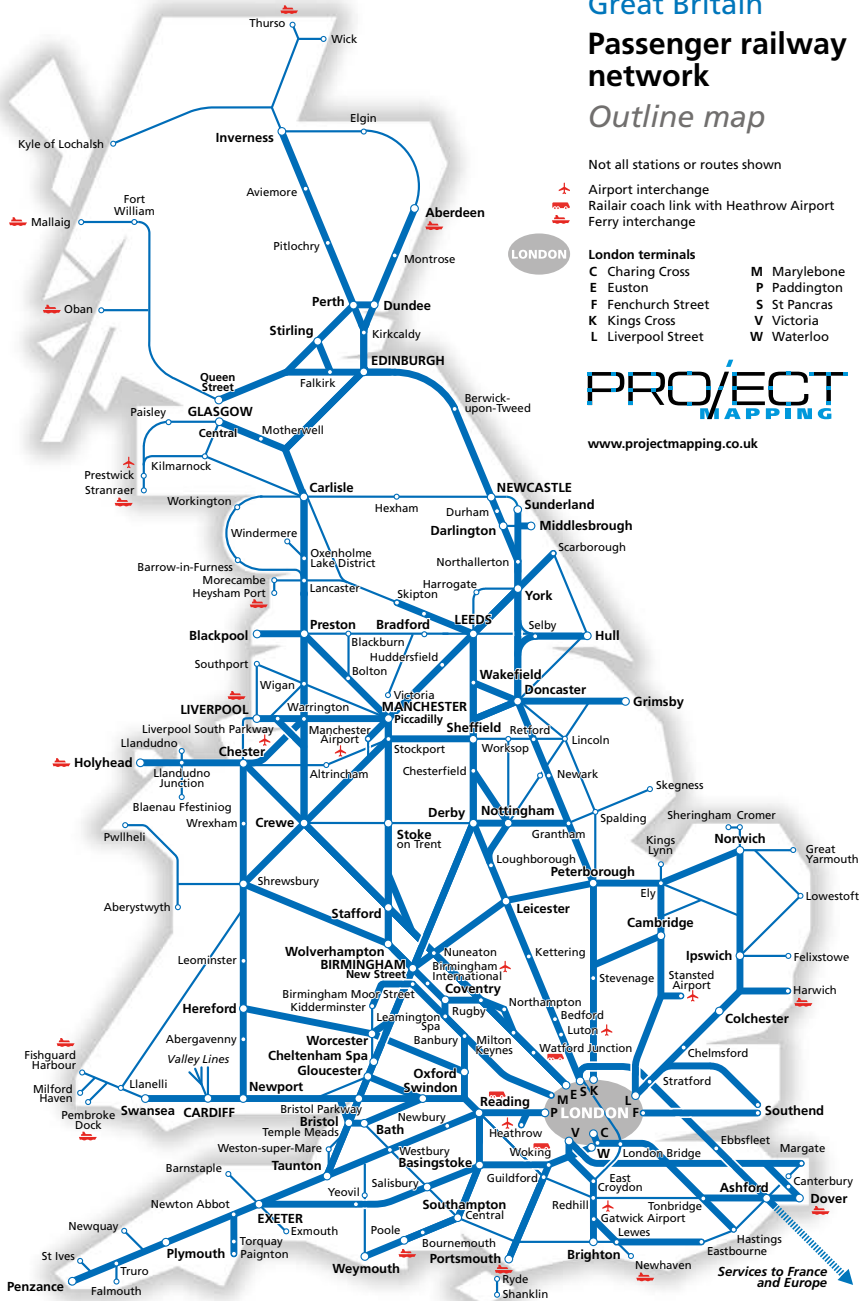
The establishment of Network Rail, a not-for-profit organisation, essentially renationalised the network. Operations however are franchised, usually for a term of around 15 years. Upon renewal, the **Department for Transport (DfT)** invites tenders for the franchise, specifying the level of service required and judging bids on several criteria. However bidders are now expected to offer substantial sums to run franchises on the ‘premium routes’, with public subsidy still required on less profitable franchises.



Great Britain

Passenger railway network

Outline map





Network Rail still receives public money from Government, meaning they don't have to levy the full access charge to the Train Operating Company (TOC) for use of the infrastructure. In September 2010 these subsidies were broken down as:

Long-distance franchises £693m (25%)

London/South East franchises £760m (19%)

Regional franchises £1,873m (61%)

Current Train Operators

Four TOCs currently operate in the region:: East Coast, Cross Country, Northern Rail and First TransPennine Express. There is also Grand Central which operates a Sunderland to London service. However this is referred to as an Open Access arrangement as it was set up outside of a franchise, without subsidy or payment to Government.

East Coast is the Government operated inter-city service between London, Leeds and Scotland which took over the franchise following successive withdrawals from GNER and National Express.

Cross Country connects the North East to the south and south-west, via the Midlands, as well as to Aberdeen.

The Transpennine franchise is run by First Group, who operate express services between connecting Newcastle and Liverpool, via Leeds and Manchester.

Northern Rail, owned by Serco-Abellio, is the TOC for the Northern franchise. It provides regional rail services, from Chathill, Northumberland to Whitby, North Yorkshire, as well as across to Carlisle and west Cumbria. First Scotrail also run a service to Glasgow, via Dumfries.

In addition, national freight services continue in the north east. EWS and Freightliner trains can often be seen rolling through Central Station, Newcastle.

With all the above passenger franchises up for renewal between 2013 and 2016, there could be change on the horizon for north east train users. In any event, competition to run rail services is likely to be fierce.

The high profile failures on the East Coast Main Line, controversy with the DfT's bidding process, as seen in the West Coast Main Line fiasco, and headline grabbing fare increases, ensure our railways are not far from the national headlines.

Further information on Train Operating Companies and route maps can be found at www.projectmapping.co.uk.

Thanks to Gordon Philpott of the CIHT North Eastern Branch, for preparing this article.

Related Links

www.weardale-railway.com

www.weardale-railway.org.uk

www.ntsra.org.uk

If you enjoyed this article, try also:

Building the Tyne and Wear Metro

Operating the Tyne and Wear Metro

Building the Tyne and Wear Metro

The Tyne and Wear Metro is a light rail system with 78km of track and 60 stations, many of them interchanges with bus and other rail services to give an integrated public transport system.

It was conceived in 1971, opened in 1980 with the first phase completed in 1984. Two major extensions to Newcastle Airport and Sunderland have since been completed.

The Metro was the first comprehensive light rail system in the UK outside of London. Planning and building it is a fascinating story and its completion paved the way for other cities to follow.





The Original Metro

The Tyne and Wear Metro is a light railway rapid transit system and was initially built on 55km of track with 44 stations and 90 Metrocars serving parts of North Tyneside, Newcastle, Gateshead and South Tyneside. Detailed planning of Metro was started in 1971 as a core element of a planned integrated passenger transport system.

Construction of the original Metro commenced in 1974. A large part of it used the existing (then) British Rail line which ran in a circular loop from Central Station around eastern Newcastle and North Tyneside and the existing rail line from Newcastle to South Shields. New track was provided on those original lines, the existing stations were refurbished and new stations added.

The British Rail lines bypassed the centre of Newcastle and a fundamental change was achieved by tunnelling under the centre of Newcastle, across a new river bridge and under central Gateshead. This ran from Jesmond Station north of Newcastle to Gateshead Stadium Station. This gave passengers direct access to the shopping and commercial heart of Newcastle and Gateshead.

Significant tunnels were also provided from Chillingham Road Station to Byker Station and then through Manors Station to St James Station at the western end of the system.

The Metro lines ran parallel to the (then) British Rail lines on the Palmersville to Shiremoor section and from Gateshead Stadium eastwards. They were segregated and operated as separate systems. In one or two locations, flyovers were constructed to take the Metro under or over the railway line.

As well as tunnels, three major viaducts were constructed – the Queen Elizabeth II Metro Bridge over the Tyne, the ‘S’ shaped Byker viaduct over the Ouseburn in East Newcastle, and the Crossgate viaduct over land between Chichester and South Shields stations.

The overall cost came in at £284m, 75% of which was funded by a central Government grant. The country suffered a major financial crisis in 1976 and much Government spending was frozen, resulting in a strict review of costs and some changes to the proposals. For example it was originally intended to run three-car trains but this was reduced to two-car trains with savings on station costs. That and strong local political support kept the project on track.

Major interchanges which served Metro and bus services and provided significant car parking were built at Regent Centre, Gosforth, at Four Lane Ends in North Tyneside and at Heworth in Gateshead on the route to South Tyneside. Connections with significant bus services were also provided at Haymarket, Monument and Central Station stations in the centre of Newcastle, at Wallsend and Byker stations, at Gateshead, Jarrow, Chichester and South Shields stations. A further number of stations had a park and ride facility. Central Station also provided connections with the (then) British Rail network.



The intended purpose was to provide a system where travellers in Tyne and Wear would have an integrated service enabling them to travel anywhere in Tyne and Wear in a convenient and affordable manner.

Bus services were regulated at that time and very few were permitted to cross the River Tyne, but were directed to Gateshead and Newcastle stations where passengers were expected to change to Metro. Similarly many services from outlying areas were terminated at Four Lane Ends, Regent Centre and Gateshead stations for the same reason. Bus regulation was subsequently removed and many aspects of 'forced' interchange ceased to operate. The essence of an integrated system nevertheless remains and was expanded in later years.

Level crossings on the original Metro system were located at Kingston Park, Fawdon and Howdon. They are open crossings, having no barriers or gates, just traffic signs, flashing red light 'stop' signals and an audible alarm. This caused some debate at the time, with arguments they were unsafe and, early on, there were one or two incidents of cars colliding with Metro trains. However this quickly subsided as drivers became more familiar with the crossings.

The system runs entirely on a 1,500v DC power supply delivered through an overhead catenary wire system. The original 'Tyneside Electrics', opened in 1904, had run on a 'third rail' electric system, but was replaced by diesel trains in the 1960s, before Metro heralded a return to electric traction.

Civil engineering consultant Mott MacDonald designed the underground sections and Ove Arup two major re-alignments at Byker and South Shields. Mason Pittendrich designed the interchanges and other surface stations.

The first section opened to the public was from Tynemouth to Haymarket in August 1980. The public readily took to the system and there was the immediate success of high passenger numbers. Other sections opened in succession and Her Majesty the Queen formally opened the Metro in 1981, crossing the new bridge from Gateshead to Newcastle. Work continued on the other sections and the final phase of the initial 55km Metro was opened to South Shields in 1984.



Extending the Metro

There have been two extensions to the Metro. The first was to Newcastle International Airport in 1991. New stations were built at the airport and Callerton Parkway, which included a park and ride facility as the name suggests. On the opening day, 10,000 people used the Metro to visit the airport as the North East's newest tourist attraction. The airport had made a financial contribution to the extension of the Metro line, along with European funding, and it proved to be an important investment for attracting more airlines to the airport.

In 2002, the Queen, in her Golden Jubilee year, officially opened the Metro line through to Sunderland, so completing a long-held aspiration. The 18km extension to the network, from Pelaw in Gateshead through Sunderland city centre to the suburb of South Hylton, has carried more than 40 million passengers since 31 March 2002.

The £149m project involved unique engineering challenges. Around 13km of Network Rail heavy rail track from Pelaw to Sunderland was converted to Metro use by installing overhead power lines and some of the most advanced signal systems in the UK. Moreover, the line marked the first time in the UK that light and heavy rail (which have different operating standards) had shared the same tracks – a forerunner to modern trials with the tram-train concept.

The advanced train protection has also paid off as the shared route is busier than ever, being used by Northern regional services, Grand Central intercity from Sunderland to London, and for increasing heavy coal and other freight traffic from the Port of Tyne.

The new line included three level crossings in the East Boldon area which had existed on the Network Rail track.



At Fellgate Station, lift shafts were built without disturbing the 160-year-old railway embankment on the route of the original 1839 Brandling Junction Railway. St Peter's Station, north of the River Wear, was built without damaging the listed stone viaduct it sat upon. The challenge led to construction of an eye-catching glass building which has become one of the icons of the whole line.

A further 4.5km of line was built out to South Hylton using a disused railway route, which until then, was a cycle path. In total, 12 stations were added, including a major bus interchange at Park Lane and, at Sunderland, the only UK railway station that directly serves both light and heavy rail.

The success of the Metro cannot be overstated. It is a major transport provider in Tyne and Wear, used by thousands of commuters, shoppers and visitors every day. As a light railway it is very flexible, operating with frequencies not possible with traditional heavy rail. And while Metro may not have ‘solved’ road congestion, due mainly to car ownership in the region catching up with the rest of the country over the last 30 years, it is hard to imagine how worse our roads could have been without it. It is well used, well appreciated and an essential element of life in Tyne and Wear.

More information on the Metro and other Nexus services can be found on the website www.nexus.org.uk.

Thanks to Huw Lewis at Nexus, for preparing this article.

If you enjoyed this article, try also:

‘Running the Tyne and Wear Metro’

‘Railways in the North East’



Newcastle International Airport

Newcastle Airport started life in 1935 as a grass strip runway and wooden terminal building, but in 1952 began expanding rapidly. It never stopped.

From 5,500 passengers a year and a handful of destination, to over 5 million and a global reach of around 80 locations, we chart the airport's phenomenal growth to become one of the UK's major international airports.





Beginnings

In July 1935, the local authority of the City and County of Newcastle took over the aerodrome at Woolsington in Northumberland from the Newcastle Aero Club. It was given a licence to operate as the Woolsington Municipal Airport and initially managed by the club. The initial cost was £35,000.

At the time the ‘airport’ was a wooden club house, a grass runway, a hangar and a garage. The first scheduled service, operated by North Eastern Airlines, was between Croydon and Perth, stopping at Newcastle. In July 1937, the first overseas service was introduced to Stavanger in Norway, by Allied Airlines. However this was halted by World War II when the Air Ministry took over the airport for the Royal Air Force, returning it in 1947.

A pivotal moment came in 1952 with the appointment of Jim Denyer as Airport Manager. He was instrumental over the next 37 years in moving the airport towards what it is today. At that time there were flights to London, Northern Ireland, Dublin, Amsterdam and Dusseldorf carrying 5,500 passengers per year. Package holiday flights

to the Isle of Man, the Isle of Wight and the Channel Islands began and in 1954 there were 35 flights per week with passenger numbers increasing to 43,000 per year.

Passenger numbers reached 100,000 in 1960 but the airport was still operated from wooden huts. There was no Customs desk and buses and taxis dropped people at the edge of the runway.

The Airport Takes Off

By 1963, £4m had been spent on further development. This was without any government assistance but, in the same year, sensing the airport's potential, the North East Regional Airport Committee was set up. It





comprised the seven local authorities at the time: the five county boroughs of Newcastle, Gateshead, Sunderland, South Shields and Tynemouth, and the two county councils of Northumberland and Durham. In 1974, the Newcastle boroughs were replaced on the Airport Committee by Tyne and Wear Metropolitan County Council.

In the mid 1960s the Committee doggedly worked to remove the corrugated tin roof image, overseeing an ambitious programme of a longer runway, new control tower, cargo buildings and car parking. They were completed in 1966 at a cost of £2m. A new £2.5m modern terminal, opened by Prime Minister Harold Wilson in 1967, completed the transformation to a regional airport.

The increase in sunshine holidays, mainly to Spain, saw passenger numbers grow rapidly to 400,000 by 1970. In response the improvement of facilities continued with more car parks, standing areas for aircraft and an extension of the terminal building at a cost of £4.5m. Jet travel was introduced by package holiday firms such as Thompson, Horizon, Global, Wings and Airtours, some having their own airlines.

Matters were still very different from today, for example the runway was actually open to curious motorists and even cyclists. The majority of airports in the UK were still municipal, i.e. controlled by local authorities, but they were increasingly concerned at the cost of

extensions to runways and terminal facilities. Locally there was competition between Newcastle and Teesside airports as to which should be recognised as the regional airport.

In 1978 a Government White Paper proposed that Newcastle receive backing and be appointed as a Category B Regional Airport to handle short and medium-haul scheduled international services. Passenger numbers of 1million per year were reached in 1980 and 1.25million in 1985, with 21,000 aircraft movements. In 1984, KLM Royal Dutch Airlines became the first foreign carrier to operate scheduled flights out of Newcastle. This was followed in 1987 by a service to Toronto, Canada by Wairdair, using a Boeing 747 Jumbo jet.



NEWCASTLE AIRPORT

Significant operational changes were affecting the airport from 1985. The Airports Act required it to become a stand-alone company, which began trading on 1st April 1987 although still under overall local authority ownership.

With continued growth, a new £2.8m parallel taxiway was built alongside the 2,300m long runway, with Jim Denyer piloting the first aircraft to use it on his last day of service in 1989. Passenger numbers increased to 2million by 1991 and, in that same year, the Metro system was extended to serve the airport. On its opening day, 10,000 people used it to visit the airport as the North East's newest tourist attraction. Having financially contributed to extending the Metro, it proved an important investment for the airport in attracting new airlines.

In 1992 a new modern fire-station was completed at a cost of £1.7m and in 1994, a further improvement to the terminal building (£5.7m) was unveiled by Princess Anne, along with an increase in parking spaces from 1,800 to 4,200. The same year saw completion of the freight village to the south of the airport (£4.5m).

Passenger numbers reached 3million in 2000 with 32 airlines serving 20 destinations. A major extension to the passenger terminal, costing £27m, was opened in October of that year by Prime Minister Tony Blair.

Access was now available to the major hubs of Amsterdam, Brussels and Paris as well as Heathrow, Gatwick and Stansted. The airport's reach stretched from Edinburgh to North Yorkshire and directly provided 3,300 jobs from 69 companies.

Despite the growing success, Newcastle Airport actually ran at a loss every year to 1979, being subsidised by the local authorities to support regional development. The change of emphasis to a more commercial approach started with airport fees (to airlines) becoming more



competitive (i.e. not subsidised). Another major step was taking duty-free sales into airport control – the forerunner of today’s commercial activities. Direct employment increased, as did profits, which supported the services of the local authority owners.

Going International

Throughout the 1990s, pressure was exerted by Government to privatise the municipal airports. Many perceived it as a quick debt reduction scheme. Newcastle Airport continued to provide dividends to its local authority owners and reinvested profits. In 1997, Government allowed airports to borrow money as any other commercial company and, subsequently, in 2001, the local authorities realised a significant capital gain of £195m by selling 49% of ownership to Copenhagen Airports. The airport management was streamlined and, for the first time, run as a truly commercial venture, with the local authorities sharing in its success under a 50-50 partnership with Copenhagen Airports, which has a 15 year contract for technical and administration services including operations, terminal planning, runway surfaces and security.

Newcastle joined the low-cost flight revolution in earnest in 2003, with the introduction of easyJet, who took over the operation of Go, formerly British Airways' low-cost carrier. The same year saw the dawn of 'Newcastle International Airport'. Emirates Airlines began direct flights to Dubai in 2007, giving connections to over 100 long distance destinations.

Emirates Airlines sponsored the new £8.2m 45m high control tower in 2007, one of the most modern high-technology towers in the UK. The money raised is used to train air traffic controllers locally, and the Newcastle Aviation Academy, a partnership of the airport with Newcastle College and Kingston University, provides courses in aerospace and allied engineering, as well as cabin crew training.

By the mid-2000s, passenger numbers reached 5 million to 86 destinations and work on a new business park and 4-star hotel started.



A state-of-the-art Instrument Landing System was introduced in 2009 to assist poor visibility landings. This proved crucial in maintaining 97% of operations during the severe winter of 2009/10 and having a punctuality rate of 80% - the highest of any UK airport. A £4.3m scheme to resurface the whole runway illustrated the continuing cost of keeping the airport as a high standard facility.

Newcastle International Airport is now a major transportation facility in the North East. From flag carriers, such as British Airways and KLM to low-cost and charter airlines, it has expanded into a truly global operation.

The airport's success has been helped by its transport links. From the direct connection to Newcastle city centre and the rail network, via the Metro, to the dual carriageway link to the A1 Trunk Road, its accessibility has maintained its strong regional ties.

It has been a major element of the North East economy for over 75 years and can look forward to even greater achievements in the future.

More information on the airport can be found at www.newcastleairport.com

Thanks to Graeme Mason of Newcastle International Airport, for preparing this article.

If you enjoyed this article, try also:

Durham Tees Valley Airport

Sustrans in the North East of England

Many across the North East will be familiar with cycling routes like the Coast and Castles, linking Newcastle with Edinburgh, or perhaps the new Way of the Roses, a 170 mile route linking Bridlington to Morecambe.

The routes are part of the National Cycle Network, established by Bristol-based charity, Sustrans. We invited them to outline their achievements in the region and provide a glimpse of future plans.





The National Cycle Network

Sustrans' was established in the 1970s and its first project was the conversion of a disused railway path linking Bristol and Bath. In September 1995, after successfully bidding for a Millennium Lottery grant, it received funding of £42.5m to create a new National Cycle Network (NCN).

The vision was to build 2,500 miles of the network by the year 2000, but as projects were brought forward, it actually completed 5,000 miles by the turn of the millennium.

Today, the NCN carries over a million walking and cycling journeys daily, with at least one route passing within a mile of 57% of the population. The NCN routes with the distinct blue cycle signs and red numbers are recognisable throughout the North East. Of its 13,400 miles, 4,000 miles are off road, including dedicated pathways through parks, woodlands and green spaces. These “greenways” are often natural habitat corridors that transect other linear features such as rivers, canals and railways, and that Sustrans are working to restore through their Biodiversity Plan, launched in 2007.

In 2010 there were 420 million zero carbon journeys on the NCN, equivalent to 657,000 tonnes of carbon dioxide saved from car journeys. Of the 359 million trips made by adults, 25% were commuting and work-related, an increase of 10% from 2009. This highlights how the network is becoming more regarded as part of the everyday transport network, and not just something used solely for leisure purposes.



The NCN makes a significant contribution to the North East's tourism economy with a number of long distance routes popular with both UK and overseas tourists, including:

- *The Sea to Sea (C2C) running from the Irish Sea to the North Sea*
- *Hadrian's Cycleway, running 174 miles from Whitehaven to South Shields*
- *Reivers Cycle Route, passing through Border Reiver territory for 150 miles from Whitehaven to Tynemouth*
- *Way of the Roses, a 170 mile route from Morecambe to Bridlington*
- *Walney to Wear passes, 153 miles, passing through the North Pennines*
- *The Coast and Castles route from Newcastle to Edinburgh, forming part of the European North Sea Cycle Route that passes through eight countries*
- *The Pennine Cycleway between Berwick-on-Tweed and Appleby-in-Westmorland.*





Case Study: C2C

The Sea to Sea, or C2C, is 140 miles linking the Irish and the North Seas. The route is best cycled from west to east to take advantage of prevailing winds and more sympathetic gradients. It can be started in either Whitehaven or Workington with the finish in Tynemouth or Sunderland. There are 79 miles of the route that are traffic free.

The C2C was the first, and is the UK's most popular, 'challenge' cycle route, opened by Sustrans in 1992. It passes through the northern Lake District before climbing the Pennines, 'the roof of England', and then descending to the railway paths of County Durham. It includes Black Hill, the highest point on the National Cycle Network (609m) and the Consett-Sunderland railway path and sculpture trail.

The route also features a collection of artworks including:

- *Terris Novalis* by internationally renowned artist Tony Cragg, a theodolite and an engineer's level at twenty times life size, on heraldic animal feet
- Andy Goldsmith's *Jolly Drivers Maze* sits on top of an old coal mine; *King Coal* by David Kemp which is reflective of a mine ventilation fan
- "The Old Transformers", also by David Kemp, standing at the divide between the area's great steel town of Consett and the coal mining district of Stanley.

The C2C is a major contributor to the tourism economy. Based upon 2006 figures, there were 241,000 cycle trips on the C2C, of which 14,000 completed the entire route. It generated £10,700,000 of economic activity and created or safeguarded 105 full-time equivalent jobs. Whilst there hasn't been a comprehensive survey since, recent sample data indicates a substantial increase on these figures.

Local Route Development

With numerous longer routes developed across the North East, Sustrans next challenge is to provide safe everyday routes from homes to workplaces, schools, shops and other amenities. Aside from the improved safety aspects of such facilities, there are other direct benefits to communities:

- *Reducing the number of cars on the 'school run' reduces congestion, pollution, and potentially, accidents outside school gates. Walking and cycling also provide everyday exercise, encouraging children to be more active and healthy*
- *Walking and cycling links connect people to their work, shops, and to green spaces, and traffic-free routes are great spaces in their own right, providing linear playground for children and adults alike*

Since starting the programme, Sustrans has connected over 1,300 schools to their communities in 600 locations, enabling children to walk or cycle in a safer and more active environment. Connection to jobs, shops and other local amenities is equally important and one example of this is a network of new links across Bedlington and Blyth. Whilst not yet comprehensive, they are a good indication of our vision for the future.

Case Study: John Reid Road Phase 1 and 2, South Shields

Sustrans had developed a good working relationship with South Tyneside Council and, in 2009, identified John Reid Road (A1300) as a main commuting corridor for cyclists, linking Newcastle Road and King George Road from west to east. The route passes through the mainly residential area south of South Shields town centre.



John Reid Road crosses a number of local communities. There was significant demand along the corridor with severance issues for home to school journeys acting as barriers to movement across the corridor. While there were relatively high levels of cycle usage evident, it was mainly of an illegal nature, using pavements. At the time John Reid Road was a dual carriageway subject to a 50 mph speed limit, making cycling on it very intimidating.

A scheme was identified to complement the existing off-road cycling infrastructure along Temple Park Road and to create a new off road west to east route adjacent to John Reid Road, connecting to the Harton Mineral line.

Delivered in two phases between 2010 and 2011, the new route provided 1,900metres of high quality off-road cycle route to six schools, along with links to leisure facilities at Temple Memorial Park and the South Tyneside General Hospital. Four toucan crossings were incorporated on the route enabling improved movement across the John Reid Road and Whiteleas Way.

The scheme is now in use and proving popular with school children as well as commuting and leisure cyclists.

Case Study: Bedlington & Blyth

As mentioned, Bedlington and Blyth have both seen new networks delivered in recent years. The Blyth scheme is part of a major South East Northumberland initiative to create the UK's first 'Active Travel Town', based around high quality walking and cycling routes and two behaviour change programmes, to promote their use at work places and schools.

The scheme includes new routes both north and south of the River Blyth to Bedlington, including a link on the south bank of the river to National Cycle Network Route 1. A combination of commuter and leisure routes is hoped will encourage as many people as possible to make everyday journeys by foot or bike, and to enjoy the beautiful scenery along the Blyth Estuary, a site of special scientific interest for wading birds.

In Bedlington, the scheme enables all schools in the area to access the main circular route and takes in Gallagher Park, the site of the old Doctor Pit coal mine, which has become a mix of woodland and meadows, with football pitches, play areas and a new BMX track.

Both projects are at the core of a drive to make South East Northumberland a healthy, prosperous and inclusive place to live, work and visit.

What else is Happening?

Along with infrastructure projects, Sustrans provides an Active Travel programme – behaviour change initiatives that work with communities and partner organisations, to enable more people to walk and cycle. Everyday journeys on foot or bike is an easy way to increase the amount of physical activity in the daily routine.

Case Study: Get Moving North Tyneside

Sustrans are working with North Tyneside Council on a project to promote active travel among employees at Cobalt Business Park, increasing the number of people walking and cycling to work to improve physical and mental wellbeing. The project also works with surrounding local communities to offer guided walks, rides and bike hire.



Cycle leaders take staff on guided rides along the network of refurbished Waggonways. The Cobalt Bike User Group (BUG) was formed, leading to cycle facilities being upgraded at the business park. Guided walks are held around the site and adjoining biodiversity park, with information provided on routes that could be tried with friends and family.

Get Moving North Tyneside's work at Cobalt was founded on the principle of 'active' commuting, backed up by a growing body of research indicating that people who are active in their daily lives are also more productive employees.

Working With Schools

Sustrans are working with pupils, teachers and parents to promote, develop and foster cycling amongst the school community. School-run traffic adds to congestion and pollution, and isn't much fun. Getting more people to and from school under their own steam is a great way of promoting a healthy lifestyle.

Case Study: School Travel in Blyth

We've been working in Blyth and South East Northumberland since 2010. The area is one of the most deprived in the region, with high levels of unemployment and poor health. The project works by engaging children (and the whole school community) in healthy, fun and educational activities based around cycling, health and environmental awareness. They can be in the classroom or outdoors and involve children whether or not they own a bike. So far 18 schools in the area have taken part.

Since the beginning of the project, 18,578 children have attended Bike It activities in two years. Surveys revealed that in some of the schools, as many as 70% of children cycled at least once or twice per week.



The Future

Sustrans continues to develop and deliver infrastructure schemes and behaviour change programmes in the North East. In 2012 we are working with local authorities on new programmes to provide links to communities. This will lead to further development and improvement to the network.

We are working with our partners on tourism initiatives to promote the regional National Cycle Network and develop sustainable tourism in the region. Our attention is now also focussed on the short urban journeys that make up a significant portion of road traffic.

More information on the Sustrans Network including comprehensive information on cycleway routes can be found at www.sustrans.org.uk.

Thanks to the Sustrans North East team for preparing this article.

Photo References:

Lambley Viaduct, part of the disused Haltwhistle to Alston branch line, supplied by Sustrans

Cycling across Infinity Bridge and The Hub, Stockton on Tees, supplied by Dave Charnley Photography

National Route 72, Gateshead Millennium Bridge, Newcastle upon Tyne, supplied by Cog + Wheel

National Route 1, near Low-Newton-by-the-Sea, Northumberland, supplied by Sustrans

Hadrian's Cycleway, supplied by David Martin/Sustrans

Wooden bridge at Kielder Water and Forest Park, part of Regional Route 10 and the Reivers Cycle Route, supplied by www.getpedalpower.info

Durham Tees Valley Airport

Durham Tees Valley Airport began life in 1941 as RAF Middleton St George. Following the closure of the RAF base in 1963, the Teesside local authorities bought the airfield and opened Teesside International Airport in 1964, renaming it Durham Tees Valley Airport in 2004.

In February 2012 the airport was in the ownership of Peel Investments (DTVA) Ltd with the Tees Valley Authorities and Durham County Council retaining a small minority shareholding.

With falling passenger numbers, reductions in routes and carriers, mergers in the holiday industry, increases in Heathrow landing charge and the thorny issue of Air Passenger Duty, the financial realities of operating the airport have become a real challenge.



**Durham Tees
Valley Airport**

Departures

Early Days

In 1938 Goosepool Farm was commandeered by the Government to become one of some two hundred RAF bomber airfields to be constructed during World War II. The airfield began life as RAF Goosepool but in 1941 became RAF Middleton St George, the name change a result of the tradition of adopting the title of the nearest town or village. Initially the airfield was used by 76 Squadron flying Halifaxes, and 78 Squadron flying Whitleys.

In 1943 the airfield was allocated to No 6 Group Royal Canadian Air Force. Squadrons based here included 419 Squadron RCAF and 428 Squadron RCAF which flew Wellingtons, Halifaxes and Lancasters and 420 Squadron RCAF which flew Wellingtons. After the war the aerodrome reverted back to the RAF and served various squadrons and units including No 13 Operational Training Unit, No 2 Air Navigation Unit and No 4 Flight Training School together with squadrons that used Meteors, Hunters, Javelins, and Lightnings. In 1957 various improvement works were carried out to the runway and the airport buildings but shortly after completion, a decision was made to close the RAF Station in 1963.

The Airport Emerges

The Teesside Local Authorities and Durham County Council purchased the airport in 1964 and the first flight took place in the form of a Mercury Airlines flight to Manchester in April 1964, followed by a Heathrow service in November, operated by BKS Air Transport Ltd on a twice daily basis. The single fare was £5 and 15 shillings. In 1965 BKS started flights to Amsterdam, Dusseldorf, Dublin, Jersey, Ostend and Paris. To cater for this need a new passenger terminal was required,

and in 1966 the terminal was opened by Princess Margaretha of Sweden.

Through the 1970s and 1980s passenger numbers grew to almost 400,000 of which about half used the Heathrow flight. The other major destinations were Amsterdam (20,000 passengers /year) and holiday flights to Palma, Tenerife, Malaga, Dubrovnik, Rijeka and Split. Air Shows started in the 1980s and as part of the 1986 show the Airport chartered Concorde for the day. In the same year the Duty Free Shop opened along with the first extension to the baggage hall. In 1987 the airport was rebranded Teesside International Airport and in 1990 the 1 millionth aircraft movement was celebrated.

Going International

The 1990s saw considerable growth. In 1996 a new radar system was installed and in 1997 the new Arrivals area was opened by Prime Minister Tony Blair and the British Midland dedicated lounges opened by European Commissioner Neil Kinnock. The same year saw completion of the International Departures lounge and the final phase of the airport terminal extension programme.

The result was that by 1997 the airport was handling almost 600,000 passengers a year. The Amsterdam traffic had grown to 70,000 passengers a year and whilst the holiday flights to Croatia had stopped due to political changes, new destinations such as Dublin, Faro, Las Palmas, Mahon, Ibiza, Alicante, Rhodes and Izmir were added to the airport's programme.

The next 10 years saw the airport's heyday with the growth of low cost airlines. In recognition of the need to find money for investment in the airport, the local authority owners decided to divest 75% of their shares

to a private sector partner. Following the tender process, in 2003 Peel Airports Ltd became the majority shareholder and announced a £20 million development programme in the airport.

Peel helped to persuade BMI Baby to open a Teesside base. In November 2003 President Bush landed at the airport in Air Force One to visit the Prime Minister in his Sedgefield constituency. In April 2004 the airport celebrated its 40th anniversary with a change of name to Durham Tees Valley Airport.

The change of name was a commercial decision, designed to use the Durham name to attract more overseas visitors to the airport and its flights. Shortly afterwards a new access road, expanded parking, a new terminal front and interior were completed.

In 2006 passenger numbers reached 910,000 per annum. Amsterdam was the most popular destination with over 120,000 passengers followed by Heathrow (110,000), Palma (81,000), Alicante (73,000), Rome (73,000), Malaga (55,000), Paris (45,000), Aberdeen (33,000) and Tenerife (20,000).

Winds of Change

By 2011 the passenger boom was over. Numbers had fallen to about 200,000 per annum in just five years. By the summer of 2012 there are scheduled services to Amsterdam (103,000 passengers/year) and Aberdeen (31,000 passengers/year) and a Saturday service to Jersey. Charters included a twice-weekly service to Palma and once a week to Bourgas.

There are a number of reasons for the decline in traffic. First there was significant competition in the low cost airline market. Whilst Jet2.com and Easyjet grew at Leeds/ Bradford and Newcastle respectively, BMI



Baby proved less successful and closed its operations at Durham Tees Valley. A brief replacement, Globespan, was attracted to the airport, but this proved short-lived.

Ryanair also used the airport as a base for flights to Dublin and Spain but then reduced their operations, reportedly due to the level of airport charges compared to neighbouring competitors. When Peel brought in Vancouver Airports as a partner in 2010 to manage the airport, the imposition of a £6 passenger departure charge to recoup some of the losses proved to be the last straw for Ryanair, who withdrew from the airport. Whilst the charge has not put off passengers from using the airport, there is evidence to suggest it has made it more difficult in attracting new airlines to operate from it.

The second reason for the decline was the restructuring of the holiday market. The growth of the low cost airlines and internet booking resulted in a decline in the traditional charter packaged holiday run by the tour

operators. Consequently they reduced their services and concentrated their charter activity on the bigger airports. There was also a major consolidation of the holiday companies into two main groups; Thomas Cook and TUI. The increase in low cost scheduled flights to the sun resulted in the reduction of charter services so that when the low cost scheduled airlines left, the charters had already gone. Coupled with industry consolidation and recession, it was not easy to attract them back.

The third reason was the introduction of Air Passenger Duty, and changes to the landing charge policy at London Heathrow. The BMI direct flight to Heathrow was withdrawn because the increased landing charges imposed by the British Airports Authority and accepted by the Civil Aviation Authority, made the service uneconomic, despite over 100,000 passengers using the service each year.

More information on the Durham Tees Valley Airport can be found at www.durhamteesvalleyairport.com.

Thanks to John Lowther of Tees Valley Unlimited, for preparing this article.