

TSUG

Transport Statistics UsersGroup

Monthly Review: August 2017

This month's review has shown that China-UK Rail transport took half the time of a ship and cost half the price of air transport. Rail freight movement in UK fell in 2016/7 by 3% on the previous year and was the lowest since 1990s. The average length of the average Union Pacific manifest train is increasing by up to 45% between 2016 and 2017 Russian airlines carried 46.9% more international passengers YOY. Sea Transport is an additional feature in this issue. Venice is the largest port in Europe for turnaround passengers. We've also got Kit Mitchel's Statistics Digest. Letter to the Editor is continued.

Dr Shanta Bir Singh Tuladhar and Andrew Sharp

Contents

Dates of the next TSUG seminars	3
Statistics Digest.....	3
STATISTICS DIGEST August 2017	3
General News	4
Letter to the Editor	4
British Social Attitudes Survey 2015 – Public Attitudes towards Transport.....	5
Where does US Transit get its Money?.....	6
Rail.....	7
Light Rail Statistics	7
Tram Passenger Survey – Key Findings Autumn 2016.....	8
China – UK by Rail	8
GB Freight Rail Usage – 2016-17 Q4 Statistical Release	9
Longer Freight Trains	9
New Oxford Service a Success.....	11
Air	12
Japan Aviation: Regional Airport Growth and Privatisation needed to meet Aggressive Tourism Targets.....	12
Liverpool Airport Masterplan.....	14
On-time Performance for Airlines and Airports.....	14
Russian Air Traffic January – May	15
Sea	15
Cruise Shipping and Urban Development – the Case of Venice	15
The Impact of Widening the Panama Canal.....	17

Road	19
Quarterly bus statistics: England Q1 (January – March) 2017	19
Lorries from Overseas	19
Up to 40% of Road Deaths in Europe are Work-related.....	19
Speed Compliance Statistics Great Britain 2016.....	20

Dates of the next TSUG seminars

Date	Venue	Topic
Wed-18-Oct	TfL	London & National Rail: Trend & Growth
Wed-15-Nov	TfL	UK Bus/Coach Statistics: A Global View
Wed-13-Dec	TfL	Use of Urban Space for Transport

The seminars can be booked through the TSUG website at www.tsug.org.uk/seminars.php

Statistics Digest

STATISTICS DIGEST August 2017

This digest lists major sets of statistics that have been released recently or which are due to be released. Regular monthly and quarterly releases are not included. The web links given allow free downloads of the documents cited.

Recent releases from Department for Transport

Recent releases from Department for Transport	
13 July	Journey time statistics: 2015 (revised) https://www.gov.uk/government/statistics/journey-time-statistics-2015-revised
13 July	Road freight statistics: 2016 https://www.gov.uk/government/statistics/road-freight-statistics-2016
27 July	Rail passenger numbers and crowding on weekdays in major cities in England and Wales: 2016 https://www.gov.uk/government/statistics/rail-passenger-numbers-and-crowding-on-weekdays-in-major-cities-in-england-and-wales-2016
27 July	National Travel Survey 2016 https://www.gov.uk/government/statistics/national-travel-survey-2016

Forthcoming releases from Department for Transport	
3 August (provisional)	Renewable Transport Fuel Obligation: Year 9 (2016 to 2017) report 4 (15 April 2016 to 14 April 2017 supply) https://www.gov.uk/government/collections/biofuels-statistics
3 August	Reported Road Casualties in Great Britain: provisional estimates for accidents involving illegal alcohol levels 2015 https://www.gov.uk/government/collections/road-accidents-and-safety-statistics
August	British social attitudes survey: 2016 https://www.gov.uk/government/collections/statistics-on-public-attitudes-to-transport
28 Sept	Reported Road Casualties in Great Britain, annual report: 2016 https://www.gov.uk/government/collections/road-accidents-and-safety-statistics
28 Sept	Reported Road Casualties in Great Britain: provisional estimates for accidents involving illegal alcohol levels 2016 https://www.gov.uk/government/collections/road-accidents-and-safety-statistics
September	Air passenger experience of security screening: 2016 https://www.gov.uk/government/collections/aviation-statistics
September	Provisional road traffic estimates, Great Britain: July 2016 to June 2017 https://www.gov.uk/government/collections/road-traffic-statistics
September	Travel time measures for local 'A' roads, England: July 2016 to June

Forthcoming releases from Department for Transport

	2017
	https://www.gov.uk/government/collections/road-congestion-and-reliability-statistics
September	Travel time measures for the strategic road network: July 2016 to June 2017
	https://www.gov.uk/government/collections/road-congestion-and-reliability-statistics
September	Taxi and private hire vehicles statistics, England: 2017
	https://www.gov.uk/government/collections/taxi-statistics
September	Local area walking and cycling in England: 2015 to 2016
	https://www.gov.uk/government/collections/walking-and-cycling-statistics
September	Port freight statistics: 2016 final figures
	https://www.gov.uk/government/collections/maritime-and-shipping-statistics
October	Annual bus statistics: year ending, March 2017
	https://www.gov.uk/government/collections/bus-statistics
October	Concessionary travel statistics: year ending, March 2017
	https://www.gov.uk/government/collections/bus-statistics

Recent Office for National Statistics releases

24 July	Overview of the UK population: July 2017
	https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/articles/overviewoftheukpopulation/july2017
19 July	Death registrations in England and Wales, summary tables: 2016
	https://www.ons.gov.uk/releases/deathregistrationsinenglandandwalessummarytables2016
22 June	Population estimates for UK, England and Wales, Scotland and Northern Ireland: mid-2016
	https://www.ons.gov.uk/releases/populationestimatesforukenglandandwalesscotlandandnorthernirelandmid2016

Members can find past seminar slides here: http://www.tsug.org.uk/past_seminars.php

General News

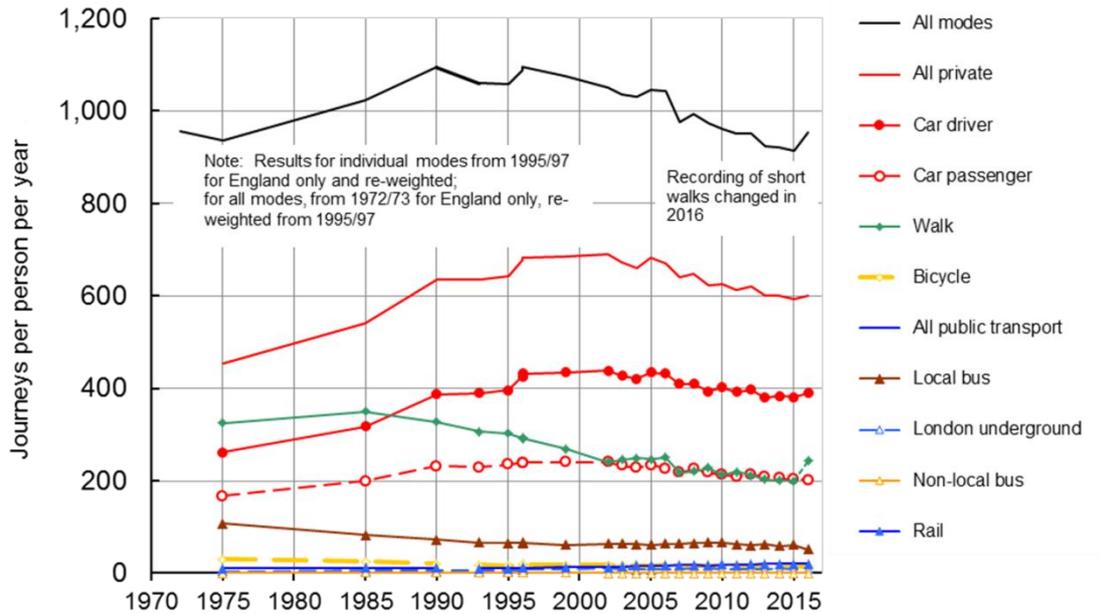
Letter to the Editor

Dear Shanta

You may wish to draw peoples' attention to the release of NTS 2016 at the end of July – one of our main sources of data. I have only had time so far to plot the number of trips by mode (see below). The way short walks were recorded changed in 2016, and this seems to have increased the number of short walk trips, and of all trips, by about 45 a year. Without that methodological change, the total number of trips would have continued the decline we have seen since 1995/97. Bus trips are down both in London and in the rest of England, and bicycle trips are down. Do paste the graph below into the newsletter, if you wish.

Regards
Kit

JOURNEYS PER PERSON PER YEAR BY MAIN MODE ENGLAND



British Social Attitudes Survey 2015 – Public Attitudes towards Transport

DfT published this statistical release at the end of January.

In 2015, 66% of respondents reported driving a car at least once a week: 59% reported travelling as a car passenger. 45% travel by car as a driver nearly every day. 27% use local buses at least once a week, and 10% use trains at least once a week. 12% travel by bike at least once a week, although 69% say they never cycle. 41% had access to a bike. 64% agreed that it was too dangerous to cycle on the road: 20% disagreed or strongly disagreed. Cyclists are less likely to be concerned than non-cyclists (48% compared with 72%) and car drivers are less concerned about safety of cycling than non-drivers. Half of those who cycle see the roads as too dangerous.

47% of respondents made no air trips in the last 12 months: only 7% said they took at least 5 flights (= round trips) in the last year.

80% of respondents believe climate change is taking place and is at least partly the result of human actions. The most commonly cited transport modes impacting on climate change were thought to be vans and lorries (78%), cars (69%) and planes (50%): people were allowed to choose three. In fact, cars account for 43% of transport greenhouse gases and planes 22%, with HGVs and light vans accounting for 12% and 11% respectively.

About 37% of respondents thought congestion on motorways a serious problem: 55% saw congestion in towns the same way. 70% were concerned about damage to the countryside from road building, and 60% thought exhaust fumes a serious problem.

90% disagreed with the statement that it is perfectly safe to talk on a hand-held mobile phone while driving: 68% thought that the law on use of phones while driving was not properly enforced. 48% thought that the use of any mobile phone while

driving was dangerous (although this was the average of 43% of men and 53% of women), and 39% thought that this should be banned (33% and 46%).

89% thought that people should drive within the speed limit. 73% of non-drivers thought there should be a 20 mile/h limit on residential streets: 66% of drivers agreed.

The release contains statistics from the National Travel Survey as a logic check on the figures.

Where does US Transit get its Money?



Jackson Heights station, New York City Subway

An interesting article on this appeared in The Source, Los Angeles Metropolitan Transit Authority's blog: you can read it at <https://lisaschweitzer.com/2017/06/07/interactive-transit-revenue-data-visualized-in-different-ways-via-plotly/>.

It looked first at the amount of money the top six transit authorities raised from different sources, and then the percentage. Only the absolute

figures are given in this extract. The systems looked at are:
 WMATA - Washington Metropolitan Transit Authority
 SEPTA – South East Pennsylvania Transit Authority (Philadelphia)
 NY MTA - New York Metropolitan Transit Authority
 MBTA – Massachusetts Bay Transportation Authority (Boston)
 LA MTA - Los Angeles Metropolitan Transit Authority
 CTA – Chicago Transit Authority

Figures are in 2015 \$m

	WMATA	SEPTA	NY MTA	MBTA	LA MTA	CTA
Income tax			444			
Other		77	1040			16
Tolls		115	318			
Gas tax	29		286		91	
Property tax						75
General Fund	1186	168	531	418	209	
Federal funds	690	288	1208	312	965	231
Auxiliary	150	565	665	128	136	137
Fares	783	482	4292	603	368	591
Sales tax		328	429	1096	1724	694

It will be noted that tax policy in the US is different from that in the UK – specific taxes tend to be raised for specific things. So a State-wide sales tax of, say, 10% will have different parts of that 10% earmarked for specific cost items – like schools, hospitals and transit.

Tolls are probably road tolls. The General Fund is the pot which would be the only one available in the UK: it's where the generality of un-hypothecated funds are put.

'Auxiliary' is probably ancillary revenue – things like advertising – but that isn't entirely clear.

It should also be noted that the system in New York City dwarfs all the rest: some of its lines carry more passengers than the entire system of other cities.

Rail

Light Rail Statistics

DfT recently produced an update of light rail statistics for England. From the mass of data, I have extracted the passenger journeys, revenue and derived from that revenue/journey for some of the operations. Figures are for 2000/1, 2005/6, 2010/1 and 2015/6.

		2000/1	2005/6	2010/1	2015/6
DLR	Journeys (m)	38.4	53.9	78.3	116.9
	Revenue (£m)	28.8	46.1	88.8	161.9
	Revenue/journey (£)	.68	.86	1.13	1.38
Manchester Metrolink	Journeys (m)	18.2	19.9	19.2	34.3
	Revenue (£m)	20.1	22.6	27.4	62.4
	Revenue/journey (£)	1.1	1.14	1.43	1.82
Midlands Metro	Journeys (m)	5.4	5.1	4.9	6.2
	Revenue (£m)	3.1	5.9	7.0	8.6
	Revenue/journey (£)	.57	1.16	1.43	1.39
Sheffield	Journeys (m)	11.1	13.1	15.0	11.6
	Revenue (£m)	7.1	10.4	15.3	11.4
	Revenue/journey (£)	.64	.79	1.02	.98
London Tramlink	Journeys (m)	15.0	22.5	28.0	27.0
	Revenue (£m)	12.2	18.8	19.1	22.8
	Revenue/journey (£)	.81	.84	.68	.84

DLR journeys have nearly tripled: 2015/6 revenue is over five times the 2000/1 revenue. Revenue/journey has about doubled. It is uncertain how accurate the revenue figure is: no doubt there is a degree of allocation of, for example, Travelcard income.

On Manchester Metrolink, journeys have nearly doubled – as with the DLR, with some increase in the network. Revenue has trebled, but the average receipt is only up by two-thirds.

Growth on Midlands Metro has been slow – 15% in 15 years, most of it in the last five. Revenue has almost trebled, and the fare has more than doubled.

In Sheffield, there has been a decline in carryings since 2011/2, so that the 15-year figure is almost unchanged. Revenue is up 50%, as is the average fare/journey.

Journeys on Tramlink (Croydon) have almost doubled, as has revenue (again, a figure likely to have an element of attribution). Revenue/journey is virtually unchanged.

Tram Passenger Survey – Key Findings Autumn 2016

Transport Focus published this report in June.



Across the six tram networks in Great Britain, overall satisfaction with the journey has increased slightly since 2015, from 92% to 93%: it was 90% in 2013 and 2014. Satisfaction is high across all networks, although ratings of Sheffield Supertram have decreased since 2015 to 91%. Edinburgh Trams achieve 99% satisfaction.

Key elements of satisfaction are punctuality and waiting time: the key factor making

London Tramlink trains at Wimbledon

passengers very rather than fairly satisfied is the environment and comfort on board.

69% of those paying for their journey thought it good value for money. This comprised satisfaction with the cost for the distance travelled and the cost of alternative modes.

33% of passengers spontaneously suggested improvements – mainly to the design, comfort and condition of the trams (particularly for Nottingham and the Midlands Metro).

7% had been troubled by anti-social behaviour. 47% were commuting (39% to work, 8% to education). 23% are aged 16-25, although 37% of tram riders in Blackpool are aged 60 or over.

China – UK by Rail

Early this year, a train of containers ran from China (Yiwu Xi, in Zhejiang Province) to the UK (Barking, east London).

The 12451km journey took 18 days (half the time of a ship) and cost \$5000 (half the price of air). Sea transport would have cost \$1000.

Containers had to be trans-shipped three times. The first two were at the borders between China and Kazakhstan and between Belarus and Poland, because the track gauge in Kazakhstan, Russia and Belarus is 1520mm, not the 1435mm used in China and most of Europe. The final one was at Duisburg, onto wagons approved for transit through the Channel Tunnel. Trains have been running between Germany and China for some time, but this is the first train to the UK.

Yiwu Xi apparently has eight regular departures for European destinations, including Riga, Duisburg and Madrid.

GB Freight Rail Usage – 2016-17 Q4 Statistical Release

This was issued by ORR in early June.



Freight Train at Bedford

Total volume of rail freight moved in Great Britain fell to 17.2bn net tonne km in 2016/7, 3% down on the previous year and the lowest since the late 1990s. Coal traffic was down 39% at 1.4bn net tonne km.

Freight lifted was 8% down on last year, at 79.4m tonnes. This is the lowest value recorded since 1984-85, when figures were depressed by the miner's strike.

Freight train movements dropped 5% to 224,000, the lowest since the time series began in 2003-04. In 2006-07, it was 456,000.

Finally, total freight train-km dropped 3% to 34m, the lowest since the series started in 2010-11. Of this, DB Cargo reported 3.84m, Freightliner 2.16m, GB Railfreight 1.38m, Freightliner Heavy Haul 0.63m, Direct Rail Services 0.35m, Colas Freight 0.17m and Devon & Cornwall Railways 0.01m.

In the year, Domestic intermodal (containers) accounted for 39% of freight moved. Construction traffic amounted to 25%, metals 9%, coal 8%, oil and petroleum 7%, international 3% and 'other' 10%. Two of the seven commodity groups showed an increase in 2016-17 - construction (+7%) and domestic intermodal (+6%). Both were the highest in terms of freight moved since the start of the time series in 1998-99 with 4.25bn and 6.81bn net tonne km respectively.

In 2015, 5% of freight lifted (tonnes) and 10% of freight moved (tonne-km) travelled by rail.

Longer Freight Trains

Edited from the Omaha World-Herald, which is owned by Berkshire Hathaway Inc., owner of the BNSF Railway

The average length of the average Union Pacific manifest train (train with mixed cargo and wagon types) is increasing, by up to 45% between 2016 and 2017. Trains are getting longer, as the freight railroads seek greater efficiency by grouping more railcars into fewer trains. The railroads say their crews are equipped to handle longer trains, and that they give a more flexible and productive transportation system, the cost of which

ultimately gets passed on in the price of everything that gets moved on the nation's rails. "Union Pacific's professional train crews receive detailed information for each train they operate, including train length and weight, and receive ongoing training to ensure they are prepared for unique train-handling situations," said Calli Hite, a spokeswoman for Omaha-based Union Pacific, the second-largest U.S. freight railroad.

But safety concerns have been raised, so far mostly by the labour unions representing the engineers, conductors and other rail workers. Longer trains might mean less need for railroad labour, as more freight gets moved with fewer trains. Railway labour groups say their complaints, ranging from the sheer physics of starting, stopping and handling a longer and heavier train to the amount of time that road-level crossings are blocked to emergency-response vehicles, are valid

Not all of the major (Class I) railroads disclose train length information. And among those that do, some do so by number of cars, and others by overall length. Trains of 8,000 feet, or about 1.5 miles, are common, and anything longer is somewhat atypical. But each of the seven Class I railroads — the largest freight carriers operating in the United States — has its own guidelines on making up trains into their final configurations. The Federal Railroad Administration, the safety regulator, doesn't collect train-length data on a routine basis.

What is known is that length has been increasing, albeit slowly, in some freight categories on an average basis, and on a trial basis in others. At Union Pacific, the average grain train last year was five cars longer than in 2013, at 101 cars; coal trains rose by two cars to 130. The manifest trains, which accounted for almost one-third of the company's freight volume last year, climbed by nine cars to 98 cars. Railcars come in varying lengths, from about 40 feet to about 80 feet. Train length hit an all-time record in four of the six major freight categories last year, according to the 2016 Investor Fact Book published by Union Pacific.

In September 2016, CSX said 14,000-foot trains would begin running between Louisville, Kentucky, and Seymour, Indiana. At Texas-based BNSF Railway, owned by Berkshire Hathaway and the largest U.S. railroad by ton-miles, longer trains are being tried out. BNSF trains remain about 8,000 feet long on average, although in April they ran one which had 246 cars and was almost 14,000 feet long. At Canadian Pacific Railway, train length has risen more than 1,000 feet since 2011, to 7,143 feet this year. Norfolk Southern said in January 2016 train length rose 2.2% from a year earlier, and reached a corporate all-time record.

Unions claim that excessive train lengths lead to a higher likelihood of mechanical failure, difficulty maintaining brake pressure and communications problems. A loss of brake pressure might require the conductor to inspect the entire length of the train — a six-mile round trip. If a conductor has to walk to the rear of the train that is 2.5 miles long, he is often unable to communicate on portable radio with the locomotive engineer due to the long distance. Portable radios regularly lose communications beyond 1.5 miles, depending on the terrain. That communications gap has led railroad managers to order crews to use their personal cellphones to supplement the portable radios — although company policies ban the use of mobile phones because of risks of distraction.

Clearly, it is more efficient to add a few railcars to every train rather than holding them to create an additional train. Longer trains mean more cargo can be handled by fewer people and railcars full of valuable freight spend less time in terminals and yards. The cost of staffing a freight train is the same regardless of how many cars are in it.

Managing costs is something the railroads were good at during the recent freight slump — quarterly shipments at the seven Class I railroads fell for two straight years, something which ended only last quarter. Though shipments fell, trains got longer, productivity increased and profits remained as the companies laid off workers, mothballed locomotives and raised prices to remain in the black. Union Pacific, for

example, remained profitable throughout 2015 and 2016, when volumes fell 6% and 7%, respectively. At BNSF, 2015 net income was \$4.2 billion, on shipments that were little-changed from a year earlier, while 2016 profit was \$3.6 billion on a 5% drop in volume.

Going from 10 cars to 11 reduces the cost/car by 10%, but going from 100 cars to 101 cars only reduces it by 1%. Longer trains are often slower trains because they take longer to move through curves and other areas where speed limits are lower than on open track.

Unmanned, radio-controlled locomotives in the middle or rear of trains can supply power as needed, reducing the physical forces bearing on longer trains and improving braking over what can be provided without them.

As with train length, there is no national legal limit as to how long trains are permitted to block traffic crossings. Cities and states often have statutes prohibiting trains from blocking a crossing for more than 10 minutes, but they are considered to be unenforceable as the matter is considered to be one of federal jurisdiction that pre-empt state law.

Warning devices at crossings activate about 25 seconds before the train occupies the crossing. Combining two trains will allow the passage of the train with one crossing closure instead of two. A train that is one mile long moving at 60 mph would occupy a crossing for approximately one minute, plus the crossing activation time of 25 seconds. A two-mile-long train at 60 mph will block the crossing for two minutes and 25 seconds. This means that running one two-mile train through the crossing rather than two one-mile trains through reduces the total time the crossing is occupied by 25 seconds.

New Oxford Service a Success

Edited from a Chiltern Railways press release



Oxford Parkway Station

12 June marked six months since Chiltern Railways began running passenger train services between Oxford and London Marylebone. This achievement, undertaken in partnership with Network Rail, has significantly increased the transport options for Oxfordshire residents and provides easy commuting into London and Oxford from Bicester and High Wycombe.

Results so far show that the line is

encouraging residents to travel by rail. Since the Oxford to Marylebone route opened in December 2016, the rail market between Oxford and London has grown by 18%. Just over 18 months after launch of the Oxford Parkway – London service, three million journeys have been made on the new line with over a million passengers travelling through Oxford Parkway. Bicester Village station has seen two million passengers: the number of visitors arriving by train at the shopping destination has increased from 3% to more than 10% since the opening of the new route.

Japan Aviation: Regional Airport Growth and Privatisation needed to meet Aggressive Tourism Targets

Edited from <https://centreforaviation.com/insights/analysis/japan-aviation-regional-airport-growth-and-privatisation-needed-to-meet-aggressive-tourism-targets-350858>

Under Abenomics the growth of inbound tourism to Japan has been spectacular – partly because so little effort was put into tourism before. Increasing numbers of inbound visitors has captured the attention of the central Japanese governments, with predictable results. Japan crossed the 10 million visitor mark in 2013, 20 million in 2016, and plans are for 40 million in 2020 and 60 million in 2030.

A summit organised by CAPA (the Centre for Aviation) at Osaka Kansai in June 2017 surveyed the improvements that have occurred in Northeast Asian aviation. For Japan to meet its 2020 tourism goal, it will need to add the equivalent of 72 new narrowbody daily flights each year for the next four years.

The typical focus of the airports of Tokyo and Osaka does not have the capacity to accommodate this growth. Offering LCC terminals and further privatising Japanese airports could help regional centres grow. Ground supplier monopolies need to be ended to provide competition, while further visa liberalisation will unlock growth markets.

In the eight years from 2013 and 2020, [Japan](#) plans to add 30 million annual inbound visitors. Japan took four years to grow from 10.4 million visitors in 2013 to 24.0 million visitors in 2016 – growth just short of 15 million. Now Japan plans to add a further 15 million visitors between now and 2020. Although this is steady growth, it is becoming harder to locate and accommodate visitors.

Visitor numbers to Japan for the year through the four months January – April 2017 (the latest data available) were 9.1 million – up 14.1% from the previous period. (9.1 million is the number of visitors Japan received in all of 2012.)

Japan aims to receive 40 million inbound visitors in 2020 (this was increased from the previous 2020 target of 20 million, when that level was reached five years early, in 2015). This equates to approximately a further 4 million visitors every year to 2020. This may seem high, but there is a recent precedent: Japan added 3 million visitors in 2014, 6 million visitors in 2015 and 4 million in 2016. So, on the surface at least, Japan appears to only need to continue what it has been doing in recent years.

In practice, changes must be made – and urgently if the 2020 goal is to be met.

The additional growth equates to 72 new narrowbody daily flights to Japan every year. Approximately 85% of Japan's tourism is from Asia, and there are some new widebody flights – and these would reduce the number of new flights Japan would need, since the 72 figure is based on narrowbodies. But the 72 dailies figure also assumes every flight is carrying exclusively foreign visitors, at a generous load factor.

Delivering and accommodating 72 new flights every year becomes challenging. With current policy settings, it is impossible. Tokyo and Osaka have long been the most popular points of entry for foreigners to Japan, but they cannot accommodate all – or even most – of the growth to come. Tokyo [Haneda](#) essentially has no further slots

aside from late night/early morning slots that LCCs have tried (with mixed success) to use. Some Asian markets could slightly increase night/morning slot usage if traffic rights were extended to them. Also, Tokyo [Narita](#) and Osaka [Kansai](#) are increasingly congested at peak and shoulder periods. Narita is further challenged by a curfew. Directing airlines to use off peak slots is not simple, especially as their home airports have increasing or already extreme slot constraints. Finding a slot pair that works for the home and foreign airport is an exercise that requires not just a plan B, but also a plan C, D, E, F and more. Japan has been Asia's liberalisation pioneer this decade and has formed open skies with most Asian countries, although there are restrictions on [Tokyo Haneda](#) and fifth freedom rights. Although further liberalisation could produce some growth, these are not priorities in most instances.

Infrastructure is being planned, but will not be ready until the end of the decade. [Tokyo Narita](#) is working to increase movements and reduce its curfew, while Tokyo Haneda will achieve growth in international movements in 2019 – in time for the 2020 Olympic Games.

Haneda's international slot growth has been celebrated as growing from 60,000 a year to 99,000. This is significant growth, but effectively from a low base. The additional slots equate to about 53 roundtrip flights a day. This could provide meaningful growth; but not all of the movements will produce new growth for Japan, since airlines are expected to move services from Tokyo Narita to Tokyo Haneda. This was the result with the international slot increase that occurred earlier this decade. In the case where there are all-new flight additions at Haneda, services at Narita may be downgauged, offsetting the Haneda growth.

Japan is not short of airports but it does lack diversity. Tokyo and Osaka account for 76% of available seat capacity. A further 20% is at four cities: [Fukuoka](#), Nagoya, [Okinawa](#) and Sapporo. Those four airports represent growth opportunities, given constraints in Tokyo and Osaka – but those airports have some restrictions too. Japan has 76 airports with domestic service, including 29 airports with international service.

Japan is still an unexplored destination for many; it was only in 2003 that it still received 5 million visitors a year. Building awareness of other cities and regions will be challenging, but is necessary. Smaller airports may be able to offer incentives and subsidies, helping not just airlines but at the same time incentivising passengers to fly somewhere new, since it becomes cheaper. However, market take-up could be impacted as airlines, in some instances, continue to provide Tokyo and Osaka with overcapacity. That overcapacity will suppress fares, leading passengers to prefer Tokyo or Osaka over a comparable fare to a smaller destination.

Japanese aviation has been changing, first with its airlines and liberalisation, and increasingly with infrastructure. Airports are being privatised, and attendees at CAPA's Osaka Kansai summit identified continued privatisation as producing more commercially oriented outcomes that could facilitate growth. Privatisation, even if agreed today, is a long process and will have limited impacts to 2020 tourism targets – but can support 2030 goals and overall industry health.

Low cost terminals (LCCTs) are becoming popular in Japan. LCCTs can support growth and lower costs, but not all airports can have them. Many of Japan's smaller airports are underutilised.

Much of the difficulty in optimising use of the dozens of under-utilised airports in Japan is down to complacency or sheer lack of interest. For many airport operators

there is little direct commercial motivation to expand activity; even where it is in the regional economic interest to expand activity, there is often little coordination between regional bodies and their airports. Also, many smaller airports – where the growth must occur – have limited competition, or are constrained by monopolies on ground suppliers. If a ground handler is available at favourable rates, it is common for it to be unable to accommodate more than a few flights at a time, removing scheduling options for a new airline.

Achieving a 40 million tourism target is going to require much more innovation and creative thinking, both in Tokyo and Osaka and in other regions, where the growth will occur. After top level initiatives of liberalising visa and traffic rights, Japan must adopt new strategies to achieve the next level of more difficult growth.

The often complacent attitudes of local airports and the longstanding Tokyo-Osaka fixation will not permit the level of tourism expansion that is called for. Privatisation appears to be the only quick way of changing the mindset of the existing operators.

Stimulating direct regional aviation growth may raise social and cultural issues in Japan's traditionally conservative regional centres, but if the national government's 2020 tourism goals are to have any chance of being achieved, significant policy initiatives are essential. A clearly defined national strategy relating to infrastructure and its better use is just the first step in that process.

Liverpool Airport Masterplan

Here is an airport which had a passenger throughput of 5m in 2006 (after, it has to be said, some years of growth), 4m in 2014 and 5.5m in 2015. So what might you forecast for 2030 and 2050?

The airport has managed to forecast 7.8m for 2030 (50% growth in 13 years – contrast with the 10% growth between 2006 and 2016) and 11m in 2050 (130%). These are said to be based on 2013 DfT air traffic forecasts, a runway lengthening scheme which will permit flights to the US East Coast, and the allocation of Heathrow slots in the National Infrastructure Policy consultation document.

However, the 2013 forecasts were revised downwards by over 10% in 2014 in the Davies Commission Interim Report. Runway lengthening is tricky – Green Belt in one direction, the Mersey in the other. Allocating slots is one thing: persuading someone to fly them is another. And if they do, no doubt (like the Manchester – Heathrow flights) most of the traffic will be transferring to other flights rather than going to London – something which will reduce demand for longer-distance flights!

The draft masterplan has just one forecast. No sensitivity tests, no 'what ifs', no scenarios. Suppose you get Heathrow flights but not long haul ones? Suppose fuel prices increase by 50%? 100%? All feasible?

On-time Performance for Airlines and Airports

OAG published this report in January.

A flight is defined as on time if it arrives or departs within 14 minutes 59 seconds of its scheduled departure time: exactly what constitutes departure (probably chocks off) and arrival (chocks on?) is not stated.

There are four categories of airport in the report – small (2.5m – 5m seats/year), medium (5m – 10m), large (10m – 20m) and major (over 20m). Statistical pedants

wishing to comment on non-exclusivity - the fact that an airport could fall into two categories - are recommended to find the percentage which do so before drawing it to the attention of either your editors or OAG!

Top airlines by punctuality are listed: Hawaiian, Copa, KLM, Qantas, Japan and Flybe are the top 6, with over 86.5% of flights on time. The largest in the top 20 is Delta, which operated the second highest number of flights in 2016. To achieve an over 84% on time record is impressive.

Airlines are analysed by category (main line, low cost) and region. Of the small airports, Newcastle is best with a 90.94% on time figure. Scandinavia performs well, with Trondheim in 4th place, Stavanger in 5th and Bergen in 8th. In the medium category, Birmingham comes top with 91.28% on time. A notable entrant in the large category is Salt Lake City (3rd, with 82% on time): it snows in Salt Lake City!

Russian Air Traffic January – May



Russian airlines carried 46.9% more international passengers year-on-year (YOY) in May, reaching 3.7m passengers for the month.

Domestic traffic increased 14.6% YOY to 5m passengers in May. For the January-May period, Russian airlines carried 35.8m passengers, up 22.1% YOY. International traffic increased 36% YOY to 14m passengers while domestic traffic grew 14.6% to 21.8m passengers. Average load factor increased by three

Moscow Domodedovo Airport

percentage points from 76.6% in the first five months of 2016 to 79.6% for January-May 2017.

Individual airlines reported the following January-May passenger figures:
Aeroflot Airline carried 12.3m, up 13.1% YOY.

St. Petersburg-based Aeroflot subsidiary Rossiya Airlines carried 3.69m, up 78%.

Siber Airlines, also known as S7, carried 3.5m, up 3.3% YOY. Globus, which operates under the S7 Airlines brand, carried 1.7m, up 51.8% YOY.

UTair Aviation carried 2.6m, up 22.4%

Ural Airlines carried 2.5m, up 29%.

Sea

Cruise Shipping and Urban Development – the Case of Venice

The International Transport Forum published this very interesting report at the end of last year.



Venice is the largest port in Europe for turnaround passengers (those who begin or end their cruise there). In terms of total cruise passenger movements, it is 3rd in Europe with 1.8m passenger movements in 2014 (Barcelona and Civitavecchia were larger). 87% of Venice's cruise passengers (1.5m) are turnaround passengers, compared with 69% in Genoa. Cruise passengers are thought to be around 5% of the 34m total tourists to the city each year. In 2014, the Port of Venice had 488 calls

People Mover serving Venice's Cruise Liner Terminal

from 76 different cruise ships – 16% of the total ships calling there (compared with 9% in 2006). Bulk carriers amounted to 29%, container ships 25% and tankers 22%.

Over the period 2001 – 2011, cruise passenger movements at Venice increased by 239% - in line with movements in the Mediterranean generally (225%). Since 2011, Venice has dropped by 3%, compared with the Mediterranean overall which saw a drop of 7%. Barcelona dropped 9% and Civitavecchia 17%. The drop is thought to be caused by a re-deployment of cruise ships to Asian markets.

Most (nearly 90%) of the cruise activity is in the six months May – October: September is highest, with 80 – 90 calls. Each ship stays around 20 hours, with a wide range of stay durations. This is linked to the fact that passengers are tending to start or end their cruise there, so there is more luggage handling and provisioning activity than a normal stop. There tend to be weekend peaks of cruise ship movements.

The city has the largest average size of cruise ship in the Mediterranean, with the average number of passengers being just over 3500. This compares with 3943 at Genoa, 3820 at Bari and 3625 at Savonina: in the Mediterranean as a whole, average size was 1878 passengers in 2014. About a third of the ships were over 96000 GT: around 74% were at least 200m long.

99% of cruise passengers starting or ending their journey in Venice and travelling by air use Venice Marco Polo airport, which arranges special luggage and passenger handling procedures for them: about 80% of cruise passengers take advantage of these.

In 2011, it is estimated that cruise ships generated 46 tonnes of particulate matter, 589 tonnes of NO_x and 136 tonnes of SO₂: totals for the port as a whole are 176 tonnes, 2895 tonnes and 535 tonnes respectively. Emissions/ship appear to have been decreasing over time, with larger cruise ships being greener than smaller and local craft. They account for 40% of NO_x and SO₂, because they use low sulphur

fuels. CO₂ emissions are relatively insignificant (112 tonnes for cruise ships, compared with 845 tonnes for all local water traffic).

Cruise ships appear to create less wave damage than smaller craft, because of their hull design and relatively low speed.

Relatively few cruise passengers stay a night in Venice before or after their voyage. Most ships arrive in the early morning (6:00 – 9:00) and depart early evening (18:00 – 21:00).

Clearly, tourists are a mixed blessing to the city, and cruise passengers part of the issue. This report is impressive in its use of statistics to see what contribution the industry makes to the overall problem.

The Impact of Widening the Panama Canal

Edited from Progressive Railroading (hence the use of Imperial measurements!)

In early May, the Port of Virginia welcomed the COSCO Development container ship, the largest vessel to call on the US East Coast to date. Over the course of the ship's stop (of over 30 hours) at the Virginia International Gateway terminal, crews loaded and unloaded almost 2,000 containers. The Development, which has a carrying capacity of more than 13,000 twenty-foot equivalent units (TEUs), came to the terminal after passing through the recently expanded Panama Canal.

More than 1,200 "Neopanamax" vessels — ships with a carrying capacity of up to 14,000 TEUs — have passed through the Panama Canal since its \$5.25 bn expansion project was completed in June 2016, according to the Panama Canal Authority. The project involved widening the waterway and adding two new sets of locks to allow larger ships to pass through. In the run-up to the opening of the widened Panama Canal, there were forecasts of an increase in Asian containerised traffic using U.S. East and Gulf coasts. While the overall market share of traffic at those ports has been growing compared to West Coast ports, the expanded Panama Canal is probably just one factor.

Between June 2016 and mid-May this year, the Port of Virginia's overall TEU volumes are up 7% compared with the same period last year. In addition, the port's rail volume for the same period grew 13% year on year. Other reasons for the Port of Virginia's rail traffic increase include the port's growing double-stack access to key Midwestern markets and the speed at which shippers can reach those markets: cargo moving on Norfolk Southern Railway's Heartland Corridor can reach Chicago in 40 hours.

The Port of Virginia isn't alone in container traffic growth. Farther north, the Port of Halifax registered a 14.3% increase in container throughput in the first quarter. That followed a 15% year-on-year increase in 2016. Like other East Coast ports, Halifax soon may begin handling a greater number of big ships after the Port Authority of New York and New Jersey (PANYNJ) raises the Bayonne Bridge between Staten Island and Bayonne, NJ. Currently, only vessels carrying 9,800 TEUs or less can pass under the bridge, which prevents Neopanamax ships from calling at most of PANYNJ's terminals. However, the authority is raising the bridge to 251 feet to make way for ships with a carrying capacity of up to 18,000 TEUs. The entire \$1.3 bn project is expected to be completed in mid-2019. After the Bayonne Bridge project is completed, shipping companies may opt to deploy even larger vessels along North American East Coast trade lanes. That could lead to more traffic for other ports in the region since ships typically call on more than one port during their journey.

For Port Everglades in Florida, traffic originating from the West Coast of South America presents a growth opportunity in the immediate future. The port currently handles 15% of the United States' trade with Latin America and already handles larger ships that have been arriving from the Suez Canal, which was widened in 2015. Florida East Coast Railway provides near-dock service at the port's 43-acre intermodal transfer facility. Port Everglades has been working on a plan to deepen and widen its shipping channel since 1996, but only in late 2016 did the port receive authorisation to begin the project. In addition, in late May it received approval to proceed with a \$437.5m project to add new berths for larger cargo ships. This project calls for lengthening the deepwater turn-around area for cargo ships from 900 feet to 2,400 feet. The expansion will allow for up to five new cargo berths. Another project component involves installing rail infrastructure for newer cranes to handle big vessels.

The South Carolina Ports Authority (SCPA) also is recording progress on its infrastructure improvement plans, which are being made, in part, to capitalise on the Panama Canal expansion. Late last month, the port received \$17.5m from the U.S. Army Corps of Engineers to begin construction on its Charleston Harbour deepening project. SCPA received another \$16.1m for routine maintenance dredging needed for construction to start. With those funds in hand, the authority will begin the project in autumn. A new terminal also being built will boost the Port of Charleston's capacity by 50%. Coupled with the harbour deepening project, the new terminal may position the port to handle any volume increases — whether they stem from the Panama Canal or elsewhere. In the meantime, SCPA has recorded a 10% increase in volumes for the first 10 months of its 2017 fiscal year.

In 2007, West Coast ports handled about 60% of the TEU market share, while East and Gulf coast ports took on 38%. By 2016, the latter figure grew to 44% - and traffic eventually could be distributed evenly between the two coasts. However, the market share shift from the West Coast to the East and Gulf coasts is an existing trend that predates the Panama Canal expansion. And even though bigger ships may come through the canal, that won't necessarily translate to more volume for railroads.

To make things more complicated, containers entering the United States through the East Coast face a much more congested rail and highway infrastructure, and the distances from East Coast ports to major inland markets may not be long enough to warrant rail usage.

Over the next few years, there likely will be a continued gradual decline in the market share of Asian goods coming to U.S. West Coast ports.

For their part, Kansas City Southern Railway leaders have seen "very little direct discernible impact" on traffic since the Panama Canal expansion opened.

Ferrocarril Mexicano S.A.de C.V. (Ferromex) has not observed any major shifts in volume following the Panama Canal expansion. However, there have been some changes in merchandise traffic moving from the Pacific Ocean to the Gulf of Mexico. For example, Ferromex previously moved wooden flooring and marble products along that route, but now those goods are shifting to the Panama Canal.

Although the East Coast's market share has risen, West Coast ports still are posting traffic increases of their own. The Port of Long Beach, for example, is on track to finish its fiscal year with a 7% increase in volumes: more than 90% of the port's volume comes from Asia. To take advantage of that growth and remain competitive, the port continues to invest heavily in its infrastructure. For example, the port is

working on the \$1.3 bn Middle Harbor Terminal Redevelopment Project, which combines two ageing shipping terminals. The project also involves increasing the terminal's size to 345 acres, which could make way for as many as 3.3m TEU annually, with about half of the containers leaving by rail. The existing terminals handle about 1.3m TEUs a year

Road

Quarterly bus statistics: England Q1 (January – March) 2017

DfT issued this release in mid June.

In the year to end March 2017, the number of local bus journeys in England was 4.45bn, 1.7% down on the previous year. Outside London, the drop was 25m (1.1%); in London it was 52m (2.3%).

Of the 4.45bn journeys, 2.24bn were in London, 0.96bn in the English metropolitan counties and 1.25bn on non-metropolitan areas. There were 0.39bn in Scotland and 0.1bn in Wales, making a total for Great Britain of 4.95bn.

Over the five years between March 2012 and March 2017, the average annual percentage change in bus fares was 2.9%, similar to the 2.5% increase in rail fares over the same period. The cost of petrol and oil has increased by 18.3%.

Lorries from Overseas

Table RFS0211, goods moved to the UK by foreign registered vehicles, was published recently by DfT. Figures are in million tonne-km (mTKm), so the effect of distance has to be taken into account, and data relate to the country of registration of the vehicle rather than the origin of the load. RFS0210 gives goods moved from the UK by foreign registered vehicles, and of course there are statistics on goods moved by UK-registered vehicles.

We mainly receive this kind of road freight from the EU, apparently: Norway and Switzerland sometimes feature although the numbers are small. Traffic moving wholly within Ireland is excluded.

I looked at the big figures, for both 2007 and 2015 (the latest available).

Traffic in Polish lorries grew from 3682 mTKm to 6558 mTKm: this is by far the largest flow. Spanish lorries come next, but their traffic has declined from 4448 mTKm to 3895 mTKm. Hungarian lorries account for 1588 mTKm (1316 in 2007): Dutch traffic has dropped from 2101 mTKm to 1570 mTKm. Next comes Romania: figures have fluctuated a lot, but in 2007 traffic was 1179 mTKm and in 2015, 1482 mTKm. A slightly odd entry is Lithuania - 676 mTKm in 2007, 1040 mTKm in 2015. What do we import from Lithuania? The final big one is Germany, where traffic dropped from 2277 mTKm in 2007 to 902 mTKm in 2015.

Up to 40% of Road Deaths in Europe are Work-related

As new figures show road deaths in the European Union have not decreased in three years, a report from the European Transport Safety Council (ETSC) says employers, national governments and the European Union must step-up efforts to tackle the problem of work-related road risk. 25,671 lives were lost on the road in the European Union in 2016, according to new analysis of EU road safety data, also published

today by ETSC. A large proportion of those were victims of work-related road collisions. The exact number is unknown but, based on detailed analysis of data from across Europe, the authors estimate that up to 40% of all road deaths are work-related.

Antonio Avenoso, Executive Director of ETSC said: “While there are some great examples of large and small organisations across Europe starting to take road safety seriously, there are thousands more that turn a blind eye to the risks their employees take every day on the roads.

“Many companies also wrongly see road risk management as a burden rather than an opportunity. But reducing risks through journey management, targeted training and purchasing safer vehicles can cut insurance costs, lead to less time off and boost a company’s image. While employers need to do more, our report also shows that they need help and support from national governments and the EU to do it.”

Improved data collection is a crucial first step to tackling work-related deaths. Police forces in the majority of EU countries do not currently register the purpose of the journey when recording the details of traffic collisions. There is also no standardised EU definition of a work-related road death. This leads to an underestimation of the scale of the problem when neither deaths of third party road users nor commuting deaths are categorised as such.

The authors also say that government and public authorities should lead by example and adopt work-related road safety management programmes for their employees and their fleets and include vehicle safety in public procurement requirements.

At an award ceremony in Brussels recently, the Swiss Federal Road Office (FEDRO) received the 2017 ETSC Road Safety Performance Index (PIN) award. The annual award recognises long-term efforts to reduce deaths and serious injuries on European roads. Switzerland registered a 15% drop in road deaths in 2016. Deaths have declined by 34% since 2010, and by 60% since 2001. The country now has the lowest road mortality (26 deaths/million inhabitants) in Europe, together with Norway (last year’s winner). Switzerland has climbed five places in ETSC’s ranking over the last five years.

Speed Compliance Statistics Great Britain 2016

DfT published this statistical release at the end of June.

On motorways, 46% of cars exceeded the speed limit – although only 11% did so by more than 10 mile/h. Single carriageway roads where the national speed limit applies had the highest level of compliance with 8% of cars exceeding the limit. This contrasts with 53% on 30 mile/h roads, and 81% on those 20 mile/h roads which did not have traffic calming measures. There has been a gradual increase in compliance between 2011 and 2016.

The report says that there are several points to take into account when considering the statistics. In particular, speeds are only measured in free-flowing conditions where there are no junctions, hills, sharp bends or traffic calming measures.

The percentage of vehicles by class complying with speed limits in free-flow conditions were as follows.

	Motorways	National Speed Limit roads	30 limit	20 limit
Cars	54	92	47	19
Vans	53		44	20
Articulated lorries	99	76	57	29
Rigid Lorries		72	49	27
Short buses (<12m)		65	62	46
Long buses		69	72	38

Among the top five reasons for exceeding limits were 'I drive according to the speed of other road users' and 'the speed limit is inappropriate for the road'.

791,000 fixed penalty notices (FPNs) were issued for speed limit offences in 2015 – 6.4% up on the previous year. This was 78% of all motoring FPNs. 92% were detected by speed cameras. Exceeding the speed limit was a contributory factor in 15.1% of fatal accidents.