TSUG

Transport Statistics Users Group

Monthly Review: October 2018

This month's review shows that annual ridership on Caltrain, running commuter trains south of San Francisco, grew by 1.5% last year. Passenger numbers on London's Night Tube service grew to 8.7 million in its second year, up from 7.8 million in 2016-17. The Dutch main line network is 'almost full', An aircraft map gave both the distance from origin and the distance travelled – interesting! More than 201 million additional passengers boarded US airlines' flights in 2017 than did so in 2005, For the four quarters to Q2, 2018, figures for Korean Air are higher than for any previous four quarters. The initial Q2 2018 data point to a moderate squeeze on airline profitability compared to the same quarter a year ago. According to the UK Consumer Aviation Survey, 74% of respondents have confidence in the safety of UK airlines and airports. 61% agree that the balance between safety and convenience is about right and that they will get the service they paid for. 58% enjoy travelling by air. 39% thought the air travel experience was getting better. The recent upward trend in motor vehicle deaths in the US is levelling off, with the number of fatalities in the first six months of 2018 dipping slightly – by less than 0.5% – compared to the first six months of 2017 even as vehicle miles travelled continues to increase. We have Note from the Chairman, TSUG and also have Kit Mitchell's Statistics Digest.

Dr Shanta Bir Singh Tuladhar and Andrew Sharp

Contents

Dates of the next TSUG seminars

Date	Venue	Topic
Wed-17-Oct	TfL	Encouraging and Monitoring Cycling: Superhighways, Innovative Infrastructure and Unreported Casualties

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

Statistics Digest

STATISTICS DIGEST October 2018

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	
30 August	Walking and cycling statistics, England: 2017
https://www.gov.uk/government/statistics/walking-and-cycling-statistics-england-2017	
14 Sept	Road Traffic Forecasts 2018
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/740399/road-traffic-forecasts-2018.pdf	
20 Sept	Provisional road traffic estimates, Great Britain: July 2017 to June 2018
https://www.gov.uk/government/statistics/provisional-road-traffic-estimates-great-britain-july-2017-to-june-2018	
20 Sept	Travel time measures for the Strategic Road Network and local 'A' roads: July 2017 to June 2018
https://www.gov.uk/government/statistics/travel-time-measures-for-the-strategic-road-network-and-local-a-roads-july-2017-to-june-2018	
27 Sept	Reported road casualties Great Britain, annual report: 2017
https://www.gov.uk/government/collections/road-accidents-and-safety-statistics	
27 Sept	Reported road casualties Great Britain, main results: 2017
https://www.gov.uk/government/collections/road-accidents-and-safety-statistics	
September	Vehicle speed compliance statistics for Great Britain: 2017
https://www.gov.uk/government/collections/speeds-statistics	

Forthcoming releases from Department for Transport	
11 October	Road freight statistics: April 2017 to March 2018
https://www.gov.uk/government/collections/road-freight-domestic-and-international-statistics	
October	Taxi and private hire vehicle statistics, England and Wales
https://www.gov.uk/government/collections/taxi-statistics	

November	Reported road casualties Great Britain, provisional estimates: year ending June 2018
https://www.gov.uk/government/collections/road-accidents-and-safety-statistics	

Recent release from Office for National Statistics	
25 Sept	National life tables: Great Britain, UK and separate nations
https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/datasets/nationallifetablesunitedkingdomreferencetables	
https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/datasets/nationallifetablesgreatbritainreferencetables	
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https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/datasets/nationallifetablesnorthernirelandreferencetables	

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

Members' Forum

Note from the Chairman

I have been updating the database, checking compliance with GDPR and adding in requests from the leads from corporate members to colleagues to be added to our membership list. If you receive this mailing and do not wish to subscribe please unsubscribe from mail chimp or else reply to the e-mail and we will of course remove your name

Peter Gordon
Chairman, TSUG

Apology from the Editors

Due to long holidays, this month's Newsletter has been shorter than usual. Members are always welcome to submit their own items.

Editor

Rail

Caltrain – Ups and Downs in 2018 Ridership

After a slight decrease in ridership last year, annual ridership on Caltrain, running commuter trains south of San Francisco, grew by 1.5%. Initial findings from the annual onboard ridership count show that average mid-weekday ridership (AMWR) for 2018 is at 65,095 passengers.

Due to increasing costs and budget constraints, the weekday count methodology was changed from counting trains on all five weekdays to counting them on two mid-week days (Tuesday, Wednesday or Thursday. In order to provide an “apples to apples” comparison to last year’s count, Monday and Friday ridership data was extracted from 2017 data. AMWR also captures the true maximum load because ridership is lower on Mondays (by approximately 1%) and Fridays (by approximately 9%). For weekends, riders were counted for one weekend on each train once on a Saturday and a Sunday.

The results of the annual ridership count provide a snapshot of Caltrain ridership that is used to identify trends, allocate resources to address capacity issues and validate revenue-based ridership estimates.

Most riders continue to travel during peak commute hours. There was a 2.5% increase in traditional peak riders (defined as northbound in the morning and southbound in the afternoon) from 33,548 riders in 2017 to 34,373 in 2018. There was a 9.2% decrease in midday riders, 5.1% increase in reverse peak riders (southbound in the morning and northbound in the afternoon) and 5.8% decrease in evening riders.

Average mid-weekday ridership is up at 18 stations, and down at 11 stations. The 10 most popular train stations are San Francisco, Palo Alto, San Jose Diridon, Mountain View, Redwood City, Sunnyvale, Millbrae (with a connection to San Francisco airport), Hillsdale, San Mateo and 22nd Street. Average mid-weekday ridership has increased by 15.4% on the Gilroy extension, which includes the Capitol, Blossom Hill, Morgan Hill, San Martin and Gilroy stations, from last year.

Results indicate that riders are travelling shorter distances on Caltrain, with the average weekday trip length for 2018 being 22.9 miles, compared to 23.4 in 2017. During peak period travel, Local service had the highest growth, with a 17.5% increase in ridership. Limited service increased by 5.1% and Baby Bullet service had a 1.1% increase.

Average mid-week bike ridership (AMWBR) increased by 6% this year, with 5,919 riders bringing bikes on Caltrain on an average weekday. For the seventh year, the number of bike riders that were not able to board the train due to overcrowding was counted. There was a substantial decrease in bikes bumped due to capacity, with only 1.6 riders bumped for each 1,000 bike boardings compared with 3.2 in 2017.

The count, a physical head count of riders, is typically conducted in January and February when there are fewer holidays and special events that could skew ridership numbers. The count data is used as Caltrain’s ridership baseline.

This data will also be incorporated into the Caltrain Business Plan in order to strategize for future scheduling and passenger capacity. Caltrain also looks forward to the ability to monitor ridership more frequently using Automatic Passengers Counters (APCs) that will be installed on the new electric fleet in 2022. Later this month, the entirety of the 2018 Annual Count Key Findings Report will be uploaded to http://www.caltrain.com/about/statsandreports/Ridership.html.

Night Tube Ridership

Passenger numbers on London’s Night Tube service grew to 8.7 million in its second year, up from 7.8 million in 2016-17. A report released by London First and EY on August 17 showed the increase in demand means Night Tube helped to generate an additional £190m for London’s economy last year, a contribution that has increased by almost £20m from its first year of operation.

The report says the service is projected to contribute £1.54bn over the next 10 years to the wider London economy, double the projections made before the service launched in August 2016. Night Tube is also supporting more than 3900 jobs, up 8.5% from last year. The Night Tube runs on six lines on Friday and Saturday nights and the early hours of Saturday and Sunday mornings.

Transport for London (TfL) says passenger numbers have been higher than expected with almost 17 million journeys so far, well above the 14 million forecast. Night services now also include the Night Overground, launched in December 2017.

TfL says it will consider how best to introduce a similar service on the Docklands Light Railway (DLR) when the next operating contract is let in 2021, while the upgrade of the Circle, District, Hammersmith & City and Metropolitan lines will facilitate a night service on these lines once the programme is fully complete in 2023. Other plans will be kept under review to see where there is demand for further night-time services.

NS Full

From Railway Gazette International

The Dutch main line network is 'almost full', ProRail warned on August 20. The national infrastructure manager issued the stark assessment in its annual update on proposed path allocations for 2019.

ProRail said it was 'running up against the limits' of its 7 300 track-km network, pointing out that traffic had grown from 129 million train-km in 2004 to 165 million train-km planned for 2019. It added that there would be 'little point' in trying to add more infrastructure as there was 'no room for that' across the country.

NS Train on Brussels - Amsterdam Service

Particular challenges include a marked increase in freight traffic, with 8% more trains expected to run next year compared to this. A major constraint is the amount of stabling and depot space around the network; ProRail says that this shortage at 'several key locations' must be 'quickly addressed'. It expects to begin offering stabling and shunting 'as a service' in future in an attempt to optimise use of the facilities available.

Some capacity relief will be provided by the launch of more IC Direct inter-city passenger services over the HSL-Zuid high speed line, which ProRail says will release paths on the conventional network for local trains. Infrastructure work between Amsterdam and Utrecht will also allow ICE services into Germany to be accelerated by three minutes, releasing some capacity.

Looking ahead, the infrastructure manager believes that more capacity can be squeezed out through the deployment of intelligent timetabling tools, particularly aimed at freight trains which often require short notice paths or changes to booked workings. From 2020, the national working timetable will be specified to the nearest six seconds rather than whole minutes, which ProRail believes will ‘help it better deliver the public timetable’.

Air

A Quirk of Aircraft Maps

Malaysia Airlines A350 Interior

When I fly, usually the only bit of the in-flight entertainment I use is the moving map – I like to know where I am.

On a recent trip to Kuala Lumpur on a new Malaysia Airlines A350, I noticed that the map gave both the distance from origin and the distance travelled. By the end of the journey, the distance travelled was over 200 miles more than the distance from origin.

Crowding on US Airlines

From Forbes.com

More than 201 million additional passengers boarded US airlines’ flights in 2017 than did so in 2005, according to the Bureau of Transportation Statistics. But US carriers actually operated 1.6 million *fewer* flights last year than in 2005. So the mathematical equation is pretty simple: lots more passengers X fewer flights = more crowded conditions on planes.

As anyone who’s flown in Coach (economy class) in the last few years knows, US carriers’ Coach sections have morphed into something more closely resembling “Steerage” on late 19th and early 20th Century steamships. Carriers have reduced pitch - the distance between a point on one seat to the same point on the seat ahead – from around 34 inches down to around 31 inches, or even less in some cases. That’s allowed them to wedge two, three, or even more rows of seats into their planes, depending on the size of those planes. Additionally, a decade ago the average Boeing 777 featured nine-across seating. Today, however, many carriers are increasing that to 10-across (in addition to the pitch reductions they’ve already made or are planning).

The result: A decade ago the average flight on US carriers (including both the national carriers operating wide body jets with 250 to 450 seats and regional carriers that operate planes with fewer than 100 seats) carried just 69 passengers on average. Now the average load is up to 91 passengers, a 32% jump.

These tight conditions – carriers are filling, on average, more than 85% their seats this summer, meaning that most prime-time flights and nearly all flights on very popular routes are completely full – aren't exactly new news. But it's also not likely to comfort the expected record 16.5 million passengers were expected to be flying commercially over the long Labor Day holiday period, which started as the article was published. That forecasted total is up 3.5% from the 16 million who flew on US carriers during the Labor Day travel period in 2017.

Demand for travel on US carriers has grown steadily since 2005, with the exception of recession-scarred 2008 and 2009. In 2005, more than 763.7 million passengers boarded US carriers' flights. Last year 964.7 million passengers got on US carriers' domestic and international flights. That's a 26.3% increase in passengers over 12 years.

Considering only domestic US flights, the number of passengers in 2017 was up 17.8% over 2005 to 741.7million. Meanwhile the total number of domestic flights was down 18.5% to "just" 8.2 million compared with just over 10 million in 2005. And 2018 is well on track to be another record-setter.

After offering a then-record total of 11.3 million flights in 2005, US carriers gradually but relentlessly reducing the number of flights they offered beginning in 2006. The decline in flights offered each year bottomed out in 2014, when there were just 8.1 million flights. Since then the total number of flights has risen only modestly to last year's 8.2 million. The total number of flights is expected to be up a little again this year.

Through the first five months of 2018 US carriers offered 56,564 (or 1.7%) more flights than in the January-May period last year. But passenger boardings through the first five months were up 5% from the same period last year. That means the trend toward ever-more-crowded flights is continuing.

So you've got good reason to feel more crowded than ever when you travel this year.

Recent Airline Statistics

I have just added **Korean Air** to my database, which cumulates the latest four quarters' results. The airline does not publish passenger numbers so I am unable to produce some of the derivatives I do for many airlines. In addition, I have only assembled the last eight quarters.

For the four quarters to Q2, 2018, figures are higher than for any previous four quarters. Revenue is 12260bn won (11648 for the four quarters to Q2, 2017). RPKs are 84262m (compared with 81346) and ASKs 95323m (90941m).

Another airline recently added is the Indian **Jet Airways**, who confuse things by reporting in financial years (so what they call Q1,19 I call Q2, 18) and financial results in crores of rupees (a crore is 10 million).

If I have correctly negotiated these minefields, it looks as if their results generally are on the up and up.

Revenues, RPKs, ASKs, passenger numbers and average journey length for the latest four quarters are the highest since I started the series in the year to Q1, 2017 (calendar year). However, revenue/passenger and revenue/passenger kilometre are both at record lows. In particular, RPKs are up from 43485m to 49532m. Load factor is up from 81% to 83%.

Recent IATA Statistics

In mid-August, IATA released its **Airlines Financial Monitor** for June-July 2018.

Highlights are as follows.

The initial Q2 2018 data point to a moderate squeeze on airline profitability compared to the same quarter a year ago. However, industry-wide cash flow generation increased this quarter compared with Q2 2017.

Air Asia Planes at Kuala Lumpur's KLIA II

Global airline share prices rose for the first time since January and outpaced developments in the overall global equity index. The improvement in the airline share price index was dominated by North America (up 9.9%), with modest gains in Europe and Asia Pacific. Airline shares are still 10% lower than at the beginning of this year.

Oil prices eased slightly again in July, but the upward trend remains in place. Jet fuel prices dipped back below US$90/bbl this month, but remain almost 40% higher than their level of a year ago.

Notwithstanding rising input costs, there are signs of renewed downward pressure on passenger yields. Yields in the less price-sensitive premium-class cabin have generally proven to be more resilient than the economy cabin, despite signs of weakness in May. Premium class passengers accounted for 5.4% of the total international traffic in the first five months of 2018 – unchanged from 2017,

Passenger demand carried solid momentum into the peak Northern Hemisphere summer period, but freight demand is showing signs of some moderation. Overall, revenue passenger kilometres (RPKs) grew by 7.8% year-on-year in June, compared with 6% in both April and May.

At the end of August, the **Air Passenger Market Analysis** report for July was published.

It noted that annual growth in industry-wide RPKs made a solid start to the peak demand season in July (6.2%), underlining IATA's view that 2018 will be another year of above-trend growth for passenger volumes.

The industry-wide load factor was a record high for the month of July (85.2%), led by European airlines (89.0%).

Airlines based in Asia Pacific recorded the fastest annual international RPK growth rate for the first time in three months. Meanwhile, the domestic growth rate in India remained in double-digit territory for the 47th month in a row.

Time to Spare – Go by Air!

On a recent flight from Kuala Lumpur to Singapore, I noticed that the total flying time was 43 minutes. However the gate to gate time was 75 minutes – we spent 43 minutes in the air, 18 minutes taxiing at Kuala Lumpur and 14 at Singapore.

UK Consumer Aviation Survey

This was published in August by the CAA.

Points I picked up were as follows.

74% of respondents have confidence in the safety of UK airlines and airports. 61% agree that the balance between safety and convenience is about right and that they will get the service they paid for. 58% enjoy travelling by air. 39% thought the air travel experience was getting better. 28% appeared to consider the environment when flying.

The percentage enjoying travel by air has remained broadly constant over the last few surveys (half-yearly since October 2016). The percentage who think they'll be treated fairly if things go wrong has increased a little – from 47% in October 2016 to 50% in April 2018. The balance between security and convenience is about right – but confidence in this is declining slightly (63% to 61% agreeing).

28% agree that they think about the impact of flying on the environment, up from 22% in October 2016: 28% (up from 22%) would pay more for tickets to reduce environmental or noise impact. This is particularly true for younger adults (33% and 35% for the 18-34 year old group, compared with 21% and 22% for those aged over 55).

In the last year, 56% of adults and 64% of 18-34-year-olds have taken at least one flight. 25% of the 56% had taken four or more flights.

Airlines used include easyJet (22%), BA (18%), Ryainair (15%), Thomson/Tui (8%) Jet2 (8%), Thomas Cook (6%) and Virgin Atlantic, Flybe and Emirates (all 4%). 40% booked direct with their airline.

46% were 'very satisfied' with the process of booking the flight: 42% were very satisfied with travelling to the airport. 33% were very satisfied with the airport experience, the on-board and in-flight experience, and the value for money. The percentage who were very satisfied overall with their last flight has declined steadily from 90% in March 2016 to 83% in April 2018.

About half of those making a complaint were very satisfied or fairly satisfied with the way it was handled.

World's Top 100 Flights

The busiest 100 flights in 2017 have been listed: the list can be seen on https://www.routesonline.com/news/29/breaking-news/280568/these-are-the-top-100-busiest-routes-on-earth/?utm_medium=email&utm_source=the-hub-daily&utm_campaign=the-hub-daily-EU&utm_content=the-hub-daily-20180917

I was intrigued to find that the busiest in America (at no. 19) was Cancun – Mexico City: no. 27 was São Paulo Congonhas – Rio de Janeiro Santos Dumont. 30 and 31 were New York JFK - Los Angeles and Los Angeles - San Francisco. 32 is Izmir – Istanbul Ataturk: 40 is Dubai – Heathrow (and these are the top two to mention a European airport).

Anyone finding other interesting gems in there is welcome to send them to the editors.

Road

H1 US Traffic Fatalities

From AASHTO Journal

Preliminary estimates from the National Safety Council indicate the recent upward trend in motor vehicle deaths in the US is levelling off, with the number of fatalities in the first six months of 2018 dipping slightly – by less than 0.5% – compared to the first six months of 2017 even as vehicle miles travelled continues to increase.

The group said on August 22 that approximately 18,720 people died on US roadways between January and June this year, compared to NSC's revised estimate of 18,770 during the same period last year, and if those preliminary 2018 estimates hold, the United States could see its third straight year with about 40,000 roadway deaths, it said.

Yet the most recent roadway travel data estimates released by the Federal Highway Administration show that US drivers accrued more than 1.58 trillion vehicle-miles travelled in the first half of 2018, an increase of 0.3% or 5.2 billion miles over the same period a year ago.

An additional 2.1 million people are estimated to have sustained serious crash-related injuries during the first six months of 2018, according to NSC's statement – a 1% drop from the first six months of 2017.

That small drop is not so much an indication of progress as much as a stabilisation of the increase that occurred between 2014 and 2016; the steepest two-year increase in over half a century, noted NSC's manager of statistics.

"When it comes to this leading cause of accidental death, we aren't making progress – we're treading water," he said. "We cannot accept more than 18,700 deaths as the price of mobility. We hope these numbers remind drivers to slow down, buckle up, pay attention and drive defensively so we can get on the road to zero deaths."

While the national trend in highway deaths is levelling off, NSC's estimates indicate they are declining in some states. In the first half of this year, several states experienced at least a 10% drop in motor vehicle deaths, including Indiana, Louisiana, Michigan and New York.

Meanwhile, increases in highway fatalities are occurring in other states, including California (up 3%), Florida (up 7%), Oregon (up 9%) and Texas (up 3%).