



EXPERT VIEW

## Tracking the in-storage fleet and utilization in a time of uncertainty

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April 21, 2020

READ OUR NEW DAILY UPDATE THAT TRACKS THE FLIGHT PLAN TO RECOVERY NEW DATA POINTS ADDED EVERY DAY FROM 29/05/2020 [...]



## **READ OUR NEW DAILY UPDATE THAT TRACKS THE FLIGHT PLAN TO RECOVERY**

**NEW DATA POINTS ADDED EVERY DAY FROM 29/05/2020**

**Stored commercial aircraft / utilization update – 21/04/2020**

We are likely to have passed the peak in stored passenger jet numbers, according to Cirium's latest fleet data update. There has been a slight net reduction in stored aircraft during the past few days – applying Cirium's criteria – which means the apex was marked at an in-active inventory of just under 17,000 widebodies, narrowbodies and regional jets, or about 64% of the global fleet.

The seven-day pipeline of movements being monitored by Cirium's research team suggests sufficient aircraft are returning to flight to continue the downward trend, albeit at a modest rate.

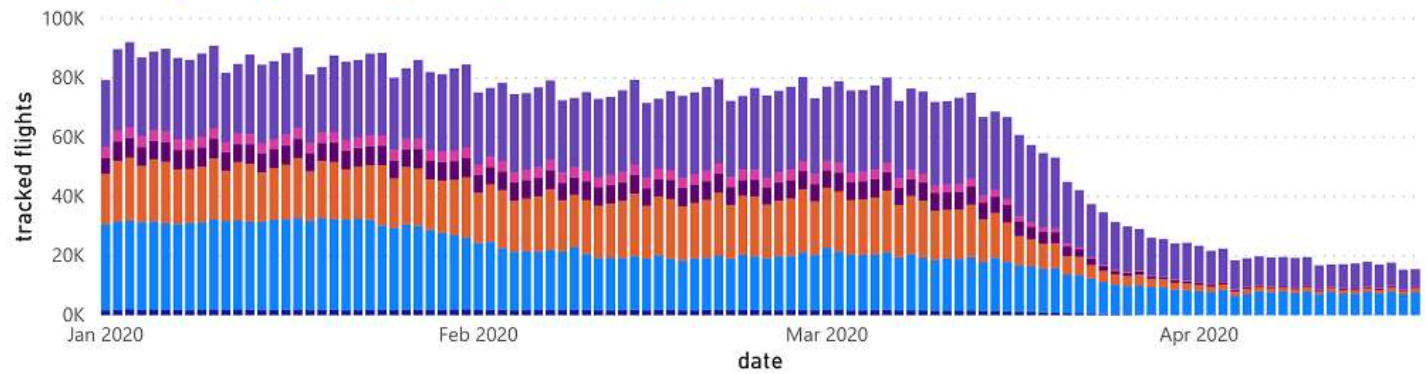
In most cases we consider an aircraft to have returned to service where we see flight activity has occurred on at least three of the prior seven days. However some operators are utilising individual aircraft sporadically by regularly making a handful of flights following a grounding of several days.

Using Cirium's 600-plus sources of flight tracking we can see that European operators flew just over 1,200 scheduled passenger jet flights on Sunday 19<sup>th</sup> April, compared with nearly 20,000 on Sunday 23<sup>rd</sup> February. Asia Pacific and North American carriers also collectively operated significantly fewer flights than they did in late-February, but nonetheless remained at levels well above Europe.



## Commercial flights tracked by date (scheduled passenger jet flights)

operator region ● Africa ● Asia Pacific ● Europe ● Latin America ● Middle East ● North America



## Stored commercial aircraft / utilization update – 17/04/2020

The trend towards stabilisation of the global stored passenger jet fleet has continued with a net increase of fewer than 100 aircraft registered since yesterday's (16<sup>th</sup> April) update. In percentage terms, we report for the third consecutive day the proportion of in-active widebodies, narrowbodies and regional jets to be approximately 64% out of the 26,000-strong total fleet, according to our status criteria.

Although the average number of aircraft we expect to enter storage daily in the coming days remains in the low three figures, this is being increasingly offset by aircraft leaving short-term storage for a period of flight activity, for example in China where travel restrictions are being progressively eased.

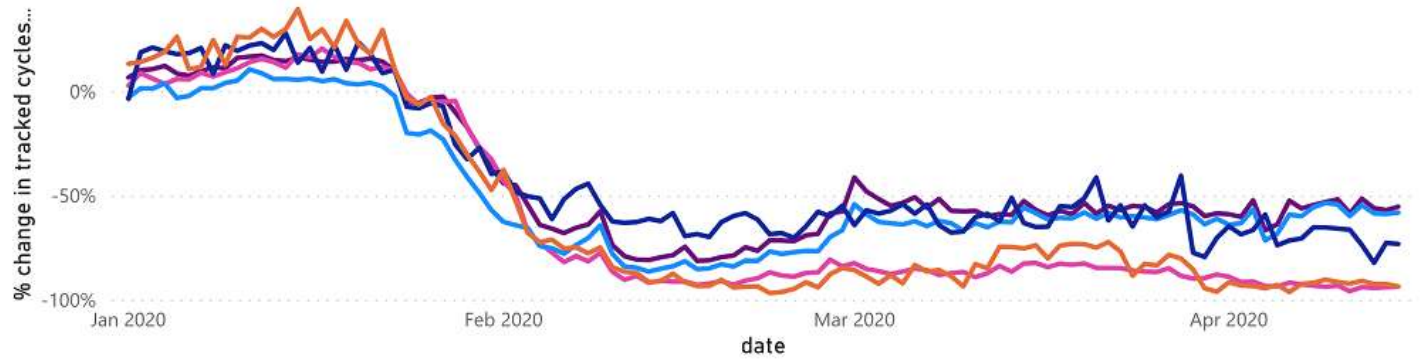
We generally classify aircraft as having returned to service where we see activity for at least four of the preceding seven days. However we are observing significant churn caused by aircraft with no activity then seeing short bursts of utilisation before a further period of inactivity.

With significant focus on efforts by Chinese airlines to restore their operations to some semblance of normality, today we use Cirium's 600-plus sources of flight tracking to examine daily activity with the top five Airbus and Boeing types by family.

This analysis shows that daily tracked flights by Chinese operators remain well down when compared with the equivalent days a year ago. The Airbus A320 and Boeing 737 families have stalled at a level just below half the 2019 benchmark. The A330/A340 and 787 widebodies are only achieving around 10% of last year's utilisation principally due to ongoing international flight restrictions, although the 777 is fairing somewhat better at around a quarter of normal flights.

## % Change in flights tracked (compared to the previous year's)

Aircraft Family ● 737 Family ● 777 Family ● 787 Family ● A320 Family ● A330/A340 Family



(Source Cirium Utilisation : filtered by Chinese Operators)

## Stored commercial aircraft / utilization update – 16/04/2020

There are renewed signs that the stored passenger jet fleet is reaching its peak as a net increase of just over 60 in the global total was registered since yesterday's (15<sup>th</sup> April) update. The small change – according to Cirium's criteria – means the proportion of the global inventory of widebodies, narrowbodies and regional jets that we consider to have been inactive for at least a week remains at approximately 64%.

There has been a small net increase in the in-service fleets of Airbus A330s/A350s and Boeing 777/787s which may indicate increased demand for belly cargo flights.

The principal storage locations in the USA – Roswell, Victorville and Marana – make up the top three globally, hosting a combined total of just under 800 aircraft. The main international airports in Delhi, Hong Kong and Istanbul have close to 200 grounded aircraft each.

Cirium places the total stored fleet of just under 17,000 aircraft at approximately 900 airport locations worldwide.

There remains significant uncertainty over when government-imposed travel restrictions due to Covid-19 will be eased, and beyond that whether demand from business and leisure travellers will rebound strongly or take much longer to recover.

Many airlines therefore face decisions on whether to transition aircraft from short-term longer-term storage to reduce ongoing maintenance requirements. However doing so compromise their ability to press them back into service quickly when eventually required.

Cirium's researchers generally classify aircraft as having returned to service where we see activity for at least four of the preceding seven days. However we are observing significant churn caused by aircraft with no activity then seeing short bursts of utilisation before a further period of inactivity.

A judgement will be made on whether to reclassify an aircraft as in-service where – for example – we see it fly for three consecutive days, then spend four days on the ground, and then fly for three further days.

The largest passenger types have been impacted severely by current market conditions. Today we deploy Cirium's 600-plus sources of flight tracking and status data to examine the almost total collapse in scheduled passenger flight activity for the Airbus A380 and Boeing 747.

(Source Cirium Utilization: filtered by V2500 engines)

On Tuesday 14<sup>th</sup> April 2020 there were fewer than five active aircraft in this category, which represented a decline by half compared with seven days prior, and was nearly 99% lower when compared with Tuesday 16<sup>th</sup> April 2019. Unsurprisingly, hours and cycles were down more than 99% when comparing 14<sup>th</sup> April 2020 with 364 days prior.

## **Stored commercial aircraft / utilization update – 15/04/2020**

As the COVID-19 (coronavirus) crisis develops, Cirium is monitoring in-storage aircraft figures on a daily basis: please bookmark this page to see regular updates on this topic.

Only 9,500 passenger jets remain classified as in-service by Cirium after latest research identified a further 500-plus widebodies, narrowbodies and regional jets that have failed to see



flight activity for at least the past seven days.

The proportion of the global fleet that we consider to be in some form of storage has therefore increased by two percentage points since yesterday's (14<sup>th</sup> April) update, to approximately 64%.

We are tracking some aircraft returning to service following a period of storage, however the overall trend remains negative as airlines continue to remove capacity from their schedules.

Cirium's researchers generally classify aircraft as having returned to service where we see activity for at least four of the preceding seven days. However we are observing significant churn caused by aircraft with no activity then seeing short bursts of utilisation before a further period of inactivity.

The widely used **International Aero Engines V2500 turbofan engine** – which powers a significant proportion of A320ceos and the small number of remaining MD-90s – is the subject of today's utilisation analysis, based on Cirium's **600-plus sources of flight tracking and status data**.

We tracked **fewer than 700 active V2500-powered aircraft** on Monday 13<sup>th</sup> April 2020, which represented a **decline of nearly one quarter** compared with seven days prior, and was more than **75% lower when compared with Monday 15<sup>th</sup> April 2019**. However **hours and cycles were down 87%** when comparing 13<sup>th</sup> April 2020 with 364 days prior, illustrating the dramatic impact that travel restrictions related to the spread of Covid-19 are having on utilisation levels for this engine.

The graphic shows the daily percentage change in tracked flights for the current top five operators of V2500-powered aircraft compared with the equivalent day a year earlier.



## Stored commercial aircraft / utilization update – 14/04/2020

Passenger jet storage numbers appear to have entered a period of relative stability with an **overall average daily increase of just over 100** for the five days since our last update on Thursday 9<sup>th</sup> April.

As of today Cirium classifies **just over 10,000 widebodies, narrowbodies and regional jets as remaining in service**, based on our criteria of observed flight activity within the last seven days. The in-service fleet now represents **just over 38%** of the global inventory.

We generally classify aircraft as having returned to service where we see **activity for at least four of the preceding seven days**. We continue to observe significant churn caused by aircraft with no activity then seeing short bursts of utilisation before a further period of inactivity. For example our team may observe a stored aircraft fly on three consecutive days, then spend four days on the ground, and then fly for three further days, in which case ongoing judgements will be made on whether to in fact return the aircraft to in-service status.

Ongoing restrictions on international passenger travel – only partially offset by demand for belly-only cargo missions – have resulted in **significant impact for the most popular widebody twinjet types**. Just under 63% of the combined Boeing 777 and 787 fleet is stored, versus nearly three-quarters for the Airbus A330 and A350, according to Cirium criteria.

Fleets of older, **out-of-production types in passenger configuration have also been hit particularly hard** during the crisis. The 737-300/400/500 family has declined to around 160 examples. The 747, 757 and 767 are down to roughly 20, 80 and 110 in-service passenger examples respectively, while we have seen just over 80 MD-80s remaining active.

For Airbus types there are **fewer than 10 passenger versions of each of the A300 and A310** still flying, while we list **only 30 A340s in operation**.

Using Cirium's **600-plus sources of flight tracking and status data**, today we visualise the impact of the Covid-19 crisis on scheduled flights operated with Airbus and Boeing types by **carriers based in China, Germany, Russia, the UK and the USA** (which represent the top five by number of aircraft tracked). The graph shows the percentage change in daily tracked flights compared with a year earlier, and illustrates how **the initial recovery in China has stalled** at a level (-57%) above the USA (-68%), while the UK shows the greatest reduction (-99%) based on data up to and including Sunday 12<sup>th</sup> April 2020.



## Stored commercial aircraft / utilization update – 09/04/2020

A **net increase of just 168 in the global stored passenger jet fleet** has been recorded since yesterday's (8<sup>th</sup> April) update, marking the smallest change since we began this daily report on 19<sup>th</sup> March. We are likely to reach the storage peak in the coming days, according to the seven-day 'pipeline' of in-active aircraft being monitored by Cirium's researchers.

A notable development since yesterday was a net increase (according to Cirium's criteria) in the **in-service fleets of Boeing 777 and 787 widebody twins**, of 26 and 45 respectively. All other passenger jet types saw a modest increase or no change to the ranks of stored aircraft. The split between stored and in-service aircraft is now **almost exactly 60:40**.

While Cirium places an aircraft in storage following at least seven consecutive days of verified inactivity, we will generally classify an aircraft as having returned to regular service following at least four days of flight activity during the preceding seven days, with some exceptions. We continue to observe significant churn caused by aircraft with no activity then seeing short bursts of utilisation before a further period of inactivity.

The in-service fleet of widebody and narrowbody passenger jets today – at 8,507 – is the equivalent of the in-service fleet in March 1994

**Note: Due to the Easter religious festival and associated UK public holidays, our next update will be published on Tuesday 14<sup>th</sup> April.**

## Stored commercial aircraft / utilization update – 08/04/2020

The daily rate of increase in the stored passenger jet fleet – according to Cirium's classification – **has fallen to its lowest level since 20<sup>th</sup> March** after a **net rise of 380 aircraft** was recorded



since yesterday's (7<sup>th</sup> April) update.

We now place **more than 15,500 widebodies, narrowbodies and regional jets in storage**, leaving **just over 10,700 as operational** (with observed flight activity in the past seven days). The in-service fleet has therefore reached a fresh low of **less than 41%** of the global inventory.

Modest **net increases in the active fleets for 10 jet airliner types** were logged in Cirium's database since yesterday, however these were almost exclusively non Airbus and Boeing-built and mainly comprised regional jets and older-generation narrowbodies. The exception was the four-engined A340, for which the operational inventory increased by one to 36. Meanwhile we now classify **just six A380s as having in-service status**.

We continue to observe **significant churn** caused by aircraft with no activity then seeing short bursts of utilisation before a further period of inactivity.

Today we use our **600 sources of flight status and tracking data** to visualise the daily trend by operator region for scheduled flights with Airbus and Boeing aircraft types, compared with a year earlier. This clearly illustrates how Asia Pacific carriers were impacted by the spread of Covid-19 from February, before the other regions began to decline in unison from March. Asia last month plateaued with flight numbers **approximately 40% lower than last year**, before resuming its decline as operations were curtailed in the rest of the world.

Based on data for **Monday 6<sup>th</sup> April 2020**, Middle Eastern and European carriers flew approximately **95% fewer flights** with Airbus and Boeing types than they did on Monday 8<sup>th</sup> April 2019. Asia Pacific was 72% down, while North America saw only a 63% reduction. Africa and Latin America recorded declines of 98% and 92%, respectively.



**Stored commercial aircraft / utilization update – 07/04/2020**

The long wait for hard evidence that the global passenger jet storage figure is reaching its peak looks set to continue for at least a few more days, after Cirium's experts added just under **650 more aircraft** to the total since yesterday's (6<sup>th</sup> April) update.

Applying our **strict criteria** of at least seven consecutive days of verified inactivity, we now classify **just under 15,200** widebodies, narrowbodies and regional jets as being in-storage, leaving approximately 11,100 aircraft – or 42% of the global inventory – in service.

There were **net increases in storage totals for all types** apart from the Airbus A300 widebody twin, for which the in-service fleet grew by a single aircraft, to eight.

We continue to observe a **dramatic reduction** in utilisation of the very largest aircraft. There are now only 23 passenger 747 aircraft in service from a total fleet of 184, while we classify just 12 of the 239-strong A380 fleet as remaining in service.

However there is **some cause for optimism** as the overall 'pipeline' of aircraft that the Cirium research team would expect to classify as stored in the coming days is clearly reducing. As noted yesterday, we are observing **significant churn** caused by aircraft with no activity then seeing short bursts of utilisation before a further period of inactivity.

Meanwhile, using Cirium's **600 sources of flight status and tracking data**, we are able to visualise the proportion of each operator's fleet (Airbus and Boeing types) that flew at least one scheduled flight in the seven days up to and including Sunday 5<sup>th</sup> April (see graphic below). The operators are ranked by fleet size (total in-service and in-storage aircraft).



This analysis shows that Chinese carriers such as Shenzhen Airlines and Xiamen Airlines have **flown almost all their aircraft** at least once **in the previous seven days**, while in contrast Europe's EasyJet and India's IndiGo have operated **virtually zero scheduled flights**.

## **Stored commercial aircraft / utilization update – 06/04/2020**

Cirium as of today classifies a total of **just over 14,500 passenger jets** worldwide as in-storage as the aviation industry begins a new week in full crisis mode with many nations remaining in lock-down due to the ongoing spread of Covid-19. This figure has increased by just under 900 since our last update on Friday 3<sup>rd</sup> April. Storage figures are in line with Cirium's criteria (at least seven days of inactivity), however it is important to note we are observing significant churn caused by aircraft with no activity then seeing short bursts of utilisation before a further period of inactivity.

The latest fleet data update from Cirium's experts puts the proportion of the fleet remaining in service **at below 45%**, but the daily rate of decline has begun to show signs of stabilising. Some major network carriers such as Emirates Airline and Etihad in the Middle East have announced plans to resume limited operations this week, while US airlines are set to maintain a minimum level of flights as a condition for government support.

Looking at the two major airframers individually, **59% of Airbus types are in storage** while the **Boeing figure is 55%**, including the 383 previously grounded 737 Max aircraft.

We can meanwhile use Cirium's flight tracking data sources to evaluate trends in **hours and cycles utilisation** for specific aircraft types produced by the two manufacturers.

In terms of scheduled flights, Airbus's most recently introduced widebody – the A350 family – accumulated 733 flight hours and 108 cycles on Friday 3<sup>rd</sup> April, with 71 active aircraft. This represented declines of 32% and 31% respectively compared with Friday 27<sup>th</sup> March. Comparing 3<sup>rd</sup> April with Friday 5<sup>th</sup> April 2019, both hours and cycles were down 79%, with 70% fewer active aircraft.

The 787 family meanwhile had 166 aircraft log 1,508 flight hours and 290 cycles on Friday 3<sup>rd</sup> April. These figures were 38% and 31% lower than Friday 27<sup>th</sup> March, respectively. For 3<sup>rd</sup> April 2020 compared with Friday 5<sup>th</sup> April 2019, hours were down 84% and cycles 80%, with 76% fewer active aircraft. "



Source: Cirium Utilization data

## **Stored commercial aircraft / utilization update – 03/04/2020**

Another **530 passenger jets** were added to the global storage total since yesterday's (April 2) update, according to Cirium criteria. This means that as expected there are now **more widebodies, narrowbodies and regional jets inactive than in service**.

Altogether, **13,655 aircraft are now classified as stored** by Cirium's researchers, compared with 12,635 that remain active (ie with observed flight activity within the past seven days). The daily rate of increase in the stored inventory has remained at just over 500 for the past two days.

Widebody types have been impacted particularly hard due to government imposed travel restrictions on international travellers. Cirium lists **62% of the current global fleet of Airbus and Boeing twin-aisles** (3,144 aircraft) as stored. There is however a **disparity between manufacturers**, as 70% of Airbus widebody models are grounded, compared with 56% for Boeing. Meanwhile at the upper end of the market in terms of capacity there are now **only 28 passenger 747s and 21 A380s in service**.

Cirium is also using its flight tracking sources to monitor the **gradual recovery of operations by Chinese airlines**. Looking at Airbus and Boeing types for Wednesday April 1 2020, 4.1% fewer aircraft were observed flying compared with a week earlier, while **flight hours and cycles were down 9.6% and 5.4% respectively**.



Source : Cirium Utilization data

Compared with Wednesday April 3 2019, Chinese operators flew **40% fewer Airbus and Boeing types, accumulating 65% fewer flight hours and 63% fewer cycles**, indicating this market remains far from recovery.

## **Stored commercial aircraft / utilization update – 02/04/2020**

Today's update shows a **marked decrease in the daily rate** at which passenger jets are being classified as stored. A net total of **just over 500 aircraft** were removed from the in-service roster by the Cirium research team over the past 24 hours.

The number of aircraft that meet our criteria for in-storage status (at least seven consecutive days of inactivity) – at 13,122 as of today – has now **almost reached parity with the in-service fleet**. The **crossover point of 13,148** will inevitably be reached by tomorrow, marking the unprecedented milestone of **more than 50% of the world's passenger jet fleet** having been placed into storage.

Cirium's seven-day outlook based on observed activity is for **some fluctuation** in the rate at which passenger jets are continuing to be withdrawn on a daily basis, but there are early signs that the in-service fleet may achieve a **degree of stabilisation** over the next week or so.

For **daily tracked utilisation**, today we turn our attention to aircraft powered by the **CFM56 engine family** (the most widely used civil turbofan). Cirium's **more than 600 tracking sources** recorded flights by **3,727 CFM56-powered aircraft** on Tuesday March 31, accumulating a combined **11,044 flight cycles and 20,871 flight hours** at the airframe level.



Source: Cirium Utilization data

Compared with **Tuesday March 24 2020**, this represented a **decline in both hours and cycles of just under 30%**, but looking back to data recorded for **Tuesday April 2 2019** global daily hours and cycles utilisation of CFM56-powered airliners has **fallen by 75%**.

## **Stored commercial aircraft / utilization update – 01/04/2020**

Just over **1,050 passenger jets** have been added to the global stored inventory by Cirium's researchers since yesterday's update (March 31). This represents a **slight reduction in the daily rate of increase** in the stored fleet, potentially providing the first sign that the active fleet could be heading towards a degree of stabilisation after the next week or so.

The latest update reflects decisions by Cirium's experts to attribute in-storage status to another **250 Airbus and Boeing widebodies** following at least seven days of verified inactivity (net of any aircraft that were returned to service). There are now **more than 12,600 widebodies, narrowbodies and regional jets in storage**, representing just under **48% of the total fleet**.

Taking the **Boeing 787 family** for today's view of **tracked hours and cycles utilisation** for scheduled flights, Cirium's data logged flight activity for 168 aircraft on Monday March 30. The fleet recorded hours and cycles for this day of 1,518 and 311, respectively.





Source: Cirium Utilization

Compared with a week earlier (March 23), this represents a **decline in both active aircraft and flight cycles for this widebody twinjet family of approximately 50%**, while flight hours are down over 60%. Comparing Monday this week with Monday April 1 2019, the active aircraft count is down 75%, while **hours and cycles are down 84% and 79%** respectively.

## **Stored commercial aircraft / utilization update – 31/03/2020**

There has been no respite in the rate at which surplus passenger jets are being removed from service by airlines, with Cirium's latest update showing a new peak of **1,173 additional aircraft reclassified as stored** over the past 24 hours (net of any aircraft returned to service).

According to our research team's strictly enforced criteria (verified inactivity for at least seven consecutive days), there are now **more than 11,500 widebodies, narrowbodies and regional jets in storage**, representing **44% of the total fleet**.

Widebody types have been particularly heavily impacted since yesterday's update (March 30) – Cirium having logged an additional **37 Boeing 747s, 21 767s, 109 777s and 90 787s** as withdrawn from service. On the Airbus side, **60 A330/A340s, 21 A350s and 41 A380s** were reclassified as stored by Cirium's experts.

Today we use our **daily hours and cycles utilisation tracking** to look at the impact of COVID-19 on scheduled operations using Airbus and Boeing types for **five key carriers in the Asia-Pacific region**.

Together, **All Nippon Airways, Japan Airlines, Qantas, Korean Air and Singapore Airlines** have parked 325 of their Airbus and Boeing aircraft on Sunday March 29, accumulating combined **cycles of**

**976 and 2,287 flight hours.** Aircraft count and flight cycles were **down by one third** compared with Sunday March 22, while **flight hours were down by just under half.**

(Source: Cirium Utilization data)

Comparing Sunday March 29 2020 with Sunday March 31 2019 for these airlines, the **active aircraft count** for these five carriers has **fallen 55%**, and hours and cycles are **down by approximately 70% and 58%** respectively.

## **Stored commercial aircraft / utilization update – 30/03/2020**

Almost 40% of the global passenger jet fleet **is now in storage** according to the latest Cirium update, with our researchers reclassifying **more than 1,850 aircraft** since Friday March 27. The total stored inventory of widebodies, narrowbodies and regional jets now stands at 10,400 aircraft.

To qualify for in-storage status an airliner must be observed as having had no flight activity for at least seven consecutive days, regardless of any statements of intent by its operator.

Once again the storage figures are dominated by **Airbus and Boeing narrowbodies**, with net increases since Friday's update of **932 and 505**, respectively. In terms of widebodies, **150 Airbuses departed the active fleet** according to Cirium's criteria, compared with **133 Boeing types**.

Meanwhile, Cirium's **daily hours and cycles utilisation** tracking shows that US mainline carriers **American Airlines, Delta Air Lines and United Airlines** flew a total of **1,216 of their Airbus and Boeing aircraft** on Saturday March 28, accumulating combined cycles of **2,954 and 7,684 flight**

**hours.** Aircraft count is **down one third compared** with Saturday March 21, while **hours and cycles are down nearly 50%.**

Comparing March 28 2020 with Saturday March 30 2019, the **active aircraft count for these three carriers** has **fallen 45%**, and hours and cycles are **down by approximately two thirds** compared with a year earlier.

## **Stored commercial aircraft / utilization update – 27/03/2020**

Cirium has classified just over **1,000 additional passenger jets** as having been **placed into storage** since yesterday's (March 26) update, taking the worldwide total of in-active aircraft to **above 8,500.** Approximately **17,750 passenger jets remain in service** as of today according to Cirium criteria, meaning they are considered to have flown at least once during the past seven days.

We also track **storage locations**, and Europe has the largest share with **approximately 2,800 aircraft** across **210 airports.** Asia-Pacific has just over 2,000 aircraft at more than 150 locations, while the latest figures for North America are 1,600 and 130 respectively. The Middle East region is hosting nearly 700 stored aircraft at about 30 locations.

Cirium is meanwhile also able to record **daily hours and cycles utilisation** of specific **engine types and variants** using its more than **600 sources of flight tracking data.**

For example, 273 aircraft equipped with **Pratt & Whitney PW4000** engines logged flights on Wednesday March 23 2020, accumulating a total of **624 cycles and 1,881 hours.** This represented a 48% decline in active aircraft compared with Wednesday March 27 2019, hours and cycles were down 66% and 56%, respectively.



In addition, our flight tracking showed several **airlines failing to fly a single aircraft** on March 25. These included Air India, Indigo and SpiceJet in India, plus Easyjet in Europe.

## **Stored commercial aircraft update – 26/03/2020**

Nearly **900 passenger widebodies, narrowbodies and regional jets** have been added to the **global stored inventory** during the past day, according to Cirium's criteria (at least seven days of continuous inactivity observed). Cirium's experts expect to add large numbers of additional aircraft to the current **total of more than 7,500 aircraft withdrawn from service**, as the industry approaches the milestone of **one third of the global fleet in storage** (equivalent to approximately 8,800 passenger jet airliners).

Since yesterday's (March 25) update, more than **600 Airbus and Boeing narrowbodies** have been re-classified as in-storage, together with approximately **180 widebodies**.

The above figures are net of the small number of aircraft recently returned to service in China. Cirium has transferred just under **100 passenger jets operated by Chinese airlines** from 'in-storage' status to 'in-service' over the past seven days. Chinese carriers are close to reaching the milestone of **3,000 aircraft in operation**.

Cirium's **daily hours and cycles utilisation** tracking shows Chinese airlines **flew slightly fewer than 1,750 of their Airbus and Boeing aircraft** on Tuesday March 24 2020, collectively **logging over 4,200 flight cycles and 9,300 flight hours**. Compared with Tuesday March 26 2019, this still represents a **40% reduction in the number of aircraft** observed flying, and a **60% decline in daily hours and cycles** logged.



## Stored commercial aircraft update – 25/03/2020

The rate of contraction of the global in-service passenger jet fleet **continues to accelerate unabated**, with Cirium **reclassifying nearly 800 additional aircraft as stored** over the **past 24 hours**. The grand total of in-active airliners is rapidly approaching 7,000 as the industry sails further into uncharted waters.

‘Note: Chart excludes regional jets’

Since yesterday’s (March 24) update, Cirium’s research team has identified **nearly 300 more Airbus narrowbodies** that meet its criteria for having been withdrawn from active duty, while the **corresponding figure for Boeing is a little over 200**. Widebody fleets continue to be severely impacted, with another **roughly 100 Boeing twin-aisles having been parked up**, together with approximately **60 more A330s, A340s, A350s and A380s**.

Cirium continues to log **daily hours and cycles utilisation** of the global fleet using its more than 600 sources of flight tracking information.

Looking at the **A330 widebody** twinjet fleet for Monday March 23 2020, just over **300 aircraft** operated nearly **600 flights** and approaching **3,000 flight hours**. These figures have **declined by approximately 50%** compared with a week earlier (Monday March 16). A comparison with Monday March 25 2019 shows **a decline of 70%** in the number of active aircraft and a **80% reduction in daily hours and cycles**.

## Stored commercial aircraft update – 24/03/2020

Almost **6,000 passenger jet aircraft are now in storage** at approximately **600 locations** around the world according to Cirium's latest fleet data update (March 24), representing nearly **a quarter of the total fleet of over 26,000 airliners**.

Cirium's team of data experts is constantly monitoring the withdrawal of commercial aircraft from service by operators as the COVID-19 crisis deepens, and it expects storage figures to continue to grow significantly over the coming days in accordance with its strictly defined criteria.

Since yesterday's update (March 23), it has recorded **net increases to the stored inventory** of nearly **350 Airbus aircraft** and more than **200 Boeing-built airliners**.

Meanwhile, Cirium is also recording **daily hours and cycles utilisation** of the global fleet using its more than **600 sources of flight tracking information**.

Taking the **Boeing 777 Family** as an example, this data shows a net reduction in the tracked active fleet of 250, to **below 700 aircraft** in total, comparing Sunday March 22 with Sunday March 15. The corresponding total **number of hours and cycles flown** by the global 777 fleet **declined by close to one third**, to below 1,200 flight cycles and a little over 8,000 flight hours between these two dates.

## Stored commercial aircraft update – 23/03/2020

The global stored fleet of commercial passenger jet aircraft has **grown by over 44% since** Cirium's previous update published on Friday March 20.

Our data experts as of today have verified that more than **5,000 aircraft meet their strictly-defined criteria for 'in storage' status**. Just **under 300 additional Boeing 717s and 737s** plus in **excess of 300 747s, 767s, 777s and 787s** have been withdrawn since Friday's update. The split for Airbus types meanwhile is **over 600 narrowbodies and approaching 250 widebodies** added to the parked inventory over the past 72 hours.

Meanwhile, Cirium is also recording **daily hours and cycles utilisation** of the global fleet using its more than **600 sources of flight tracking information**.





This data shows **the global A320 Family fleet** – for example – has suffered a roughly **45% reduction in both tracked daily flight cycles and flight hours**, comparing Thursday January 9 with Thursday March 19. The **number of aircraft tracked flying reduced by more than 2,000** between these two dates.

Please note, airlines are stating that they are parking numerous aircraft, however our diligent fleets research team are evidencing it at the primary level using flight status/tracking information to confirm what it is in fact in storage.

Our team of experts firmly believe that these storage numbers will continue to grow on a daily basis. Therefore please continue to view this page every day for the latest information.

If you require access to this data via a dedicated **aircraft API** then please **contact us today**.

## Stored commercial aircraft update – 20/03/2020

Cirium's latest fleet data update has recorded an additional **307 commercial passenger jet** aircraft placed into storage in the full day since yesterday's revision (March 19). There were therefore **3,561 aircraft** in storage globally as of March 20.

Meanwhile, Cirium is also recording daily hours and cycles utilisation of the global fleet using its more than **600 sources** of flight tracking information.

This data shows that **5,839 Boeing 737NGs** were tracked flying on Monday January 6, accumulating a total of **26,675 flight cycles** and **54,760 flight hours**.

However on Monday March 16, almost **1,000 fewer 737NGs were tracked flying (4,859)**, between them logging only **19,606 flight cycles** and **39,577 flight hours**

These figures include passenger widebodies, narrowbodies and regional jets where operational status has been verified by Cirium's team of data experts and which have been delivered by the OEM to a customer.

If you require access to this data via a dedicated **aircraft API** then please **contact us today**.

## Stored commercial aircraft update – 19/03/2020



Cirium's latest fleet data update shows there were **3,254** commercial passenger jet aircraft in storage globally as of March 19 2020, an increase of **769** compared with the **2,485** recorded for December 31 2019, immediately prior to the onset of the COVID-19 crisis.

These figures include passenger widebodies, narrowbodies and regional jets where operational status has been verified by Cirium's team of data experts and which have been delivered by the OEM to a customer. As a side note there are also more than 500 commercial passenger jets which have flown but not yet been delivered by OEMs. Although a number of these are in the normal production cycle, including almost 50 which have flown in the last 28 days, this total also includes some **420 737** Max aircraft which are additional to the stored numbers above.

Since the end of 2019, the stored inventory of Boeing 737NGs has increased by just over 100, while an additional **86 777s** and **41 787s** have been withdrawn from active duty.

A net total of just under **200 Airbus A320** Family aircraft have entered storage so far since the end of last year, and these have been joined by **134 additional A330s**, with just over **250** of the European-built widebody twinjets now in storage altogether.

Since the beginning of 2020 the stored inventory of ultra-large A380s has increased from six to 27, and more groundings are pending following latest airline announcements.

Our research team continues to make thousands of daily updates to Cirium's fleet database, which includes more than 350,000 individual aircraft records.

**Please note:**

- Aircraft are typically deemed to have been parked after two weeks of constant inactivity. In certain circumstances data is being updated within a shorter time frame due to the developing COVID-19 situation.
- Aircraft that are reported by airlines as parked do not always meet our criteria
- Future parking events announced by airlines are not captured until they occur
- Where an airline announces it is suspending services due to COVID-19, we only show the aircraft as parked as they become parked

**Use fleets data to source the in-storage fleet**



It is important to monitor the stored fleets of your clients and prospects. If you are a customer of Cirium's fleets solutions, then please speak to our **customer service team** who will gladly help you build reports to share with your colleagues.

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