COVID-19 reversed a long-running trend, and the passenger fleet is getting younger, in parts.

Airlines have certainly been investing in new aircraft, but the graph shows that they have not been arriving in the fleet fast enough to keep up with the growth in flights. In fact, 2019 showed a slight acceleration of ageing, as the deliveries of B737MAX were halted.

COVID-19 changed this. For the first time in 10 years, in 2020 the average aircraft was younger than the year before. We’ve reported in other snapshots and think papers how airlines reacted to the huge reduction in demand by simplifying their fleets, removing older, less-efficient aircraft. From the graph here, it’s clear that this response was strongest in long-haul (4000km+) where in 2020, in just 12 months, the average age dropped from 10 to 8.5 years.

For very-short haul flights (<500km) the fleet is already relatively old: there are more long-lived turboprop aircraft operating over these distances, for example, and there has been only limited replacement of aircraft. In addition, low-cost carriers made deeper cuts to their flights in 2020, which shifted the balance of flights towards the fleets of traditional airlines, hence older aircraft. As a result, from 2020 and against the overall trend, the average age of this group of aircraft actually increased.

In 2021, the trend to younger aircraft has continued, though not strongly. B737MAX aircraft have begun to enter service in 2021, reaching nearly 13,000 flights (2% of total) in December. The stronger recovery of low-cost carriers during the busy summer months also shifted the average age downwards.

As the recovery continues into 2022, it remains to be seen how many of the older, grounded aircraft – particularly from the long-haul fleet – will re-enter service and whether the shift to a younger, more fuel-efficient fleet is sustained.

Technical Bits: More data on aircraft age is available in the EUROCONTROL/STATFOR dashboard. The average is calculated weighted by the number of flights made.