Flight of fancy? Aviation industry tries to go green

February 16 2020, by Catherine Lai and Sam Reeves

The Singapore Airshow was powered by solar panels

From an emissions-reducing model jet that looks like something from a sci-fi movie to electric aircraft and sustainable fuel, the aviation industry is ramping up efforts to go green as consumer pressure grows.

In an era when teen climate activist Greta Thunberg opts to travel on an eco-friendly boat and "flight-shaming" is all the rage in her native Sweden, air travel's reputation has never looked as dire.

Aviation accounts for three percent of climate-damaging carbon emissions globally, according to the European Environment Agency, and the world is experiencing record heatwaves, wildfires and storm surges made worse by rising seas.

"Sustainability" was the buzzword last week in Singapore at Asia's biggest air show—which was powered by solar panels—with manufacturers and airlines trying to outdo one another on vows to become more sustainable.

Some environmentalists however have criticised such pledges as "greenwash", PR stunts that will do little to mitigate the damage caused by the vast quantities of jet fuel burnt every year.

"Aviation is under significant pressure to improve its sustainability image," Paul Stein, chief technology officer for engine maker Rolls-Royce, told AFP.

Airlines are "working with us to find pathways to increase the availability of sustainable fuels, look at how electrification can impact them... and also looking to more and more efficient engines and airframes".

The aviation industry has been under pressure to do more on sustainability

Cutting emissions

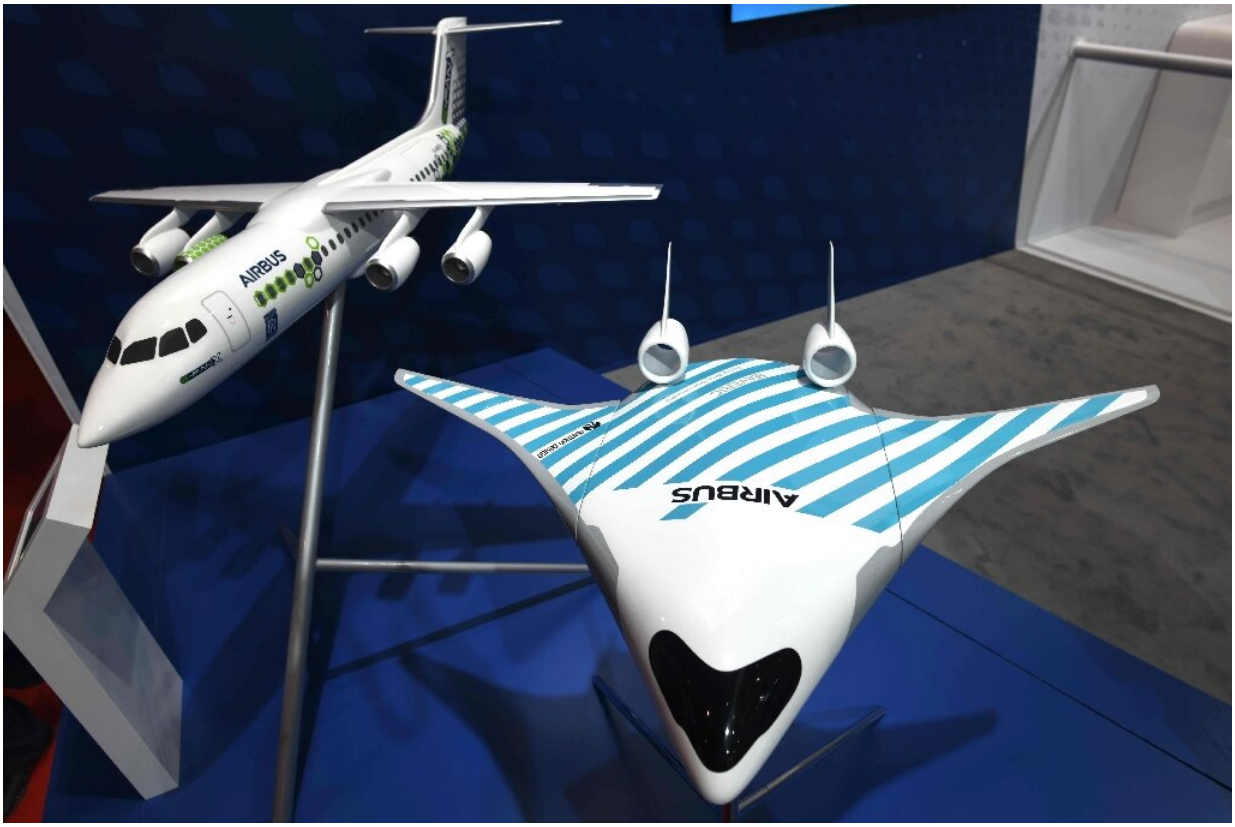
The aviation industry has pledged to reduce its net carbon emissions by 50 percent by 2050 compared with 2005 levels, and the British sector went further this month with a vow to achieve net zero emissions by the same date.

At the Singapore Airshow, European plane maker Airbus unveiled a model of a futuristic new jet that blends wings with body and has two rear-mounted engines.

The demonstrator model's sleek design is meant to reduce aerodynamic drag, and the manufacturer says it has the potential to cut fuel consumption by up to 20 percent compared to current single-aisle aircraft.

Dubbed Maveric, the 2.2-metre-long (7.2-foot) model had its first test flight in June last year.

Franco-Italian manufacturer ATR was meanwhile keen to highlight that its turboprop aircraft—popular for short hops, particularly in parts of Asia with poor infrastructure—burns 40 percent less fuel compared with a jet of the same size.



European plane maker Airbus has unveiled a model of a futuristic jet dubbed Maveric (right) which it says has the potential to cut fuel consumption by up to

20 percent compared to current single-aisle aircraft

"It is a trade-off between fuel consumption and speed," ATR chief executive Stefano Bortoli told AFP.

"You can gain five, 10 minutes with a faster jet but in terms of pollution, it is more damaging."

Slow-moving solutions

There have also been steps towards producing electric planes. The world's first fully electric aircraft—designed by engineering firm magniX—made its inaugural test flight in December in Canada.

Swiss company Smartflyer is developing a hybrid-electric aircraft for four people and is aiming for a maiden flight in 2022. As well as reducing emissions, the aircraft is less noisy and cheaper to operate due in part to lower fuel costs.

But Aldo Montanari, the company's head of avionics and user interface, cautioned such projects would not be quick.

"The pressure is quite big... and I think the industry has understood but they need time to react, they cannot do it in one year," he said. "It has to be safe."

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Biofuels are touted as a major route for the aviation industry to cut carbon emissions, and several airlines have in recent years operated commercial flights using them.

But prices remain higher than regular fuel, and they represent just a tiny proportion of jet fuel used globally.

Despite the efforts, environmentalists accuse the aviation industry of moving too slowly as more evidence emerges of the devastating impacts of climate change.

"It will take a long time for airlines to become sustainable," Dewi Zloch, climate and energy campaigner with Greenpeace, told AFP.

"Technological solutions will take decades."