



A new approach

Aircraft seating solution provider LSEAT discusses how the company's innovative technology is set to transform the economy class passenger experience.

Air transport has grown into a huge industry, with 86 per cent of passengers travelling in economy class and sitting on chair-style seats. Much research has been done to create expensive first and business class seats for low-density cabins, targeting higher prices and with the lie-flat sleep position being the only way to overcome jet lag and sleep on long distance flights.

The aviation industry hasn't invested in economy class to meet that need. That need is what LSEAT was created for.

Economy class has the highest number of seats on board, but even if their cost is lower, their volumes are the biggest investment, and they have the longest cycle on aircraft. The introduction of a sleep mode had to therefore be highly versatile as well as financially affordable, meet regulatory requirements and be compliant.

Recertification of every type of seat with each manufacturer was not financially achievable. Design modifications had to remain

within the limits of acceptable tolerances so that the pitch and cabin certification were compliant.

To offer economy passengers an elongated and comfortable lie-down position on existing seats, their legs must have access to the area below the seat in front of them. The only way to enable this was to slide forward and downward the lower seat cushion. Air travel can be torture for taller passengers, but with LSEAT passengers can cross and extend their legs as they wish.

The LSEAT kit is adjusted for each type of seat according to the pitch availability, offering passengers optimum comfort.

Ergonomic benefits

A 40-degree long lie-down position is optimal for leg blood circulation. A regular recline brings around 12 degrees, and the LSEAT conversion adds around 30 degrees depending on the available pitch room.

With a 40-degree seat extension, body weight is spread throughout the body and the passenger will feel more fit and in better shape after a long flight.

The majority of the +80 per cent of passengers cannot or are not willing to pay the cost of an upgraded class but are happy with a reasonable ticket price mark-up for a better economy seat. Should 15 per cent of economy passengers pay it, the total revenue of that class goes up drastically.

LSEAT rents its kit per installed seat, with a three-year contract covering full maintenance and warranty. The airline won't have any upfront costs and financially LSEAT is a strong cash builder for economy class revenue.

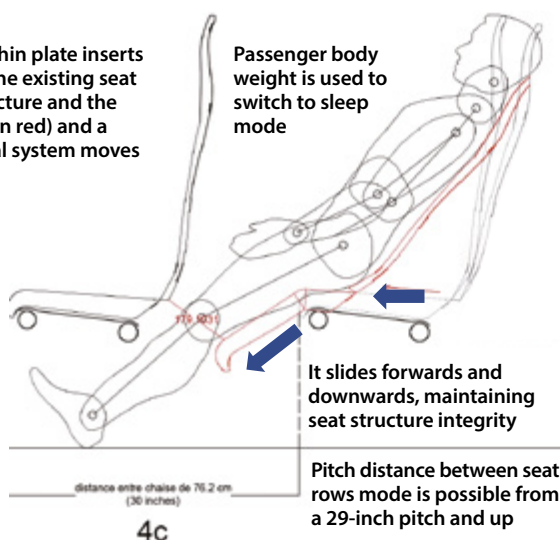
LSEAT does not need power to operate as the body motion triggers the seat extension, and the seats do not interfere with the neighbour's position.

The sleep mode extension has three intermediate positions: IFE watch, relax reading mode, and half sleep mode.

The installation on an aircraft takes less than 10 minutes per seat and when it comes to certification it is designed under FAA/EASA "Minor Modification" procedure. But should an STC be needed, LSEAT will do this. A refundable deposit will be required at the launch of each project.

A double thin plate inserts between the existing seat metal structure and the cushions (in red) and a mechanical system moves them

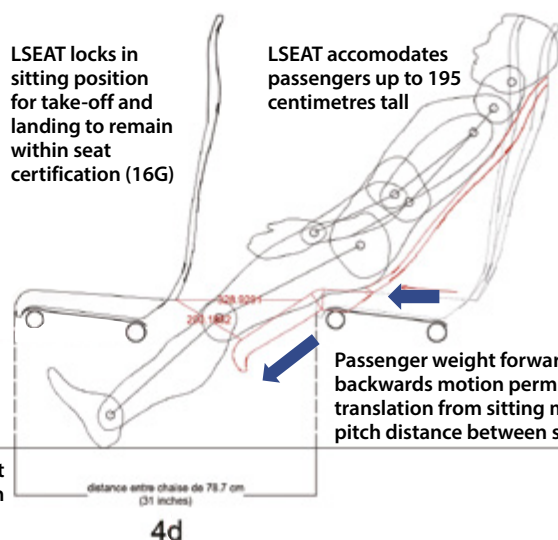
Passenger body weight is used to switch to sleep mode



It slides forwards and downwards, maintaining seat structure integrity

Pitch distance between seat rows mode is possible from a 29-inch pitch and up

LSEAT locks in sitting position for take-off and landing to remain within seat certification (16G)



LSEAT accommodates passengers up to 195 centimetres tall

Passenger weight forwards and backwards motion permits the translation from sitting mode to sleep pitch distance between seat rows mode