

# Dreamliner battery damaged by heat build up, says probe

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TOKYO Japanese officials probing the emergency landing of a Boeing Dreamliner said on Tuesday its lithium-ion battery was damaged by a build up of heat that resulted in uncontrollably high temperatures.

"The battery was destroyed in a process called thermal runaway, in which the heat builds up to the point where it becomes uncontrollable," said a Japan Transport Safety Board (JTSB) official.

"But it is still not known what caused the uncontrollable high temperature," he added.

Pictures released by the JTSB showed the wire that was intended to earth the pack to avoid problems with static had severed.

"This means the wire suffered unusual levels of electric current, which it should never experience in a normal state," said an investigator.

A fire risk from overheating powerpacks emerged as a major concern after pilots were forced to land the domestic All Nippon Airways flight in western Japan on January 16 due to smoke thought to be linked to the plane's battery.

Investigators had already released a picture showing the blackened remains of the battery in the ANA plane.

And the JTSB on Tuesday revealed more photos showing details of the damaged power pack, including those of eight individual lithium-ion cells.

Officials have said there were no signs of a battery fire, while data gleaned from the flight's digital data recorder showed the powerpack did not suffer a rapid surge in voltage.

The pack's voltage, in fact, had been at normal levels before it rapidly plunged just before the system alert that forced the emergency landing, the JTSB said.

In New York, Boeing has asked the Federal Aviation Administration (FAA) for permission to conduct test flights of Dreamliner.

Boeing said it has submitted an application to conduct test flights, confirming a report in the Seattle Times. The newspaper reported that the FAA might grant permission as soon as Monday night, citing sources with knowledge of the matter. The FAA said it is evaluating Boeing's request.

Boeing would test a potential fix for the problem that caused two batteries to burn on 787s last month, the paper said. But passenger flights would still be weeks if not months away, the paper said, citing two sources.

Goto also said CT scans showed six of the main battery's eight cells on the ANA Dreamliner were badly damaged, charred and deformed.

Launch customer ANA is the world's biggest Dreamliner operator with 17 of the jets. With local rival JAL owning seven, Japan accounts for almost half the 50 787s that have been grounded since January 17.

GS Yuasa, the Japanese firm that makes batteries for the Boeing 787, said its April-December net profit fell 3.6 per cent to 5.52 billion yen (\$59.55 million) on revenue that slipped 4.6 per cent to 196 billion yen.

*SOURCE Omantribune*

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