Japan Probe Suspects Excess Voltage In 787 Battery

Malcolm Foster, Associated Press

TOKYO (AP) — The burned insides of a battery in the Boeing 787 at the center of a worldwide grounding of the aircraft indicate it operated at a voltage above its design limit, a Japanese investigator said Friday, as U.S. officials joined Japan's probe into the incident.

The All Nippon Airways plane made an emergency landing Wednesday morning in western Japan after its pilots smelled something burning and received a cockpit warning of battery problems. Nearly all 50 of the 787s in use around the world have since been grounded.

Photos provided by the Japan Transport Safety Board of the lithium ion battery that was located beneath the 787's cockpit show a blackened mass of wires and other components within a distorted blue casing.

Japan transport ministry investigator Hideyo Kosugi said the state of the battery indicated "voltage exceeding the design limit was applied" to it.

He said the similarity of the burned insides of the battery from the ANA flight to the battery in a Japan Airlines 787 that caught fire Jan. 7 while the jet was parked at Boston's Logan International Airport suggested a common cause.

"If we compare data from the latest case here and that in the U.S., we can pretty much figure out what happened," Kosugi said.

The 787 relies more than any other modern airliner on electrical signals to help power nearly everything the plane does. It's also the first Boeing plane to use rechargeable lithium-ion batteries for its main electrical system. Such batteries are prone to overheating and have additional safeguards installed that are meant to control the problem and prevent fires.

GS Yuasa Corp., the maker of the lithium-ion batteries used in the 787s, said Thursday it was helping with the investigation but that the cause of the problem was unclear. It said the problem could be the battery, the power source or the electronics system.

U.S. safety officials and Boeing inspectors joined the Japan Transport Safety Board investigation Friday.

The American investigators — one each from the Federal Aviation Administration and the National Transportation Safety Board and two from Boeing Co. — inspected the ANA jet on the tarmac at Takamatsu airport in western Japan.

An initial inspection by Japanese officials of the 787 found that a flammable battery fluid known as electrolyte had leaked from the plane's main lithium-ion battery beneath the cockpit. It also found burn marks around the battery.

Aviation authorities in Japan have directed ANA, which owns 17 of the planes, and Japan Airlines, with seven, not to fly the jets until questions over their safety have been resolved.

The 787, known as the Dreamliner, is Boeing's newest jet, and the company is counting heavily on its success. Since its launch after delays of more than three years, the plane has been plagued by a series of problems.

The FAA has required U.S. carriers to stop flying 787s until the batteries are demonstrated to be safe. United Airlines has six of the jets and is the only U.S. carrier flying the model.

Aviation authorities in other countries usually follow the lead of the country where the manufacturer is based.

Source URL (retrieved on *10/26/2014 - 3:52am*):
http://www.impomag.com/news/2013/01/japan-probe-suspects-excess-voltage-787-battery?qt-most_popular=0